

OCF Resource Type Specification

VERSION 1.3.1 | February 2018



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1292

1293 **1 Scope**

1294 The OCF Resource Type Specification specifies the Resources that have been defined by OCF
1295 that may be exposed by an OCF Device.

1296 Application profile device specifications (for example those created for Smart Home or Healthcare)
1297 specify device types appropriate to the profile; such specifications use Resource Type definitions
1298 from this document.

1299 This specification is built on top of the OCF Core Specification. The OCF Core Specification
1300 specifies the OCF Framework that enables the implementation of profiles for IoT usages and
1301 ecosystems. The OCF Core Framework is scalable to support simple devices (constrained device)
1302 and more capable devices (smart device).

1303 **2 Normative references**

1304 The following documents, in whole or in part, are normatively referenced in this document and are
1305 indispensable for its application. For dated references, only the edition cited applies. For undated
1306 references, the latest edition of the referenced document (including any amendments) applies.

1307 OCF Core Specification, *Open Connectivity Foundation Core Specification*, Version 1.3.0.
1308 Available at: https://openconnectivity.org/specs/OCF_Core_Specification_v1.3.0.pdf
1309 Latest version available at: https://openconnectivity.org/specs/OCF_Core_Specification.pdf

1310 JSON SCHEMA, *JSON Schema: Core Definitions and Terminology*, Version 4.0,
1311 <http://json-schema.org/latest/json-schema-core.html>.

1312 RAML, *Restful API modelling language*, Version 0.8.
1313 <https://github.com/raml-org/raml-spec/blob/master/versions/raml-08/raml-08.md>

1314 ISO 8601:2004, *Data elements and interchange formats – information interchange –*
1315 *Representation of dates and times*.

1316 CIE CIE159:2004, *A colour appearance model for colour management systems: CIECAM02*,
1317 January 19, 2004.

1318 [http://www.cie.co.at/publications/colour-appearance-model-colour-management-systems-](http://www.cie.co.at/publications/colour-appearance-model-colour-management-systems-ciecam02)
1319 [ciecam02](http://www.cie.co.at/publications/colour-appearance-model-colour-management-systems-ciecam02)

1320 **3 Terms, definitions, symbols and abbreviations**

1321 **3.1 Terms and definitions**

1322 **3.1.1**

1323 **Actuator**

1324 Resource with support of the UPDATE operation.

1325 **3.1.2**

1326 **Composite Resource Type**

1327 A Resource Type defined as an OCF Collection of other Resource Types.

1328 **3.1.3**

1329 **Sensor**

1330 Resource without support of the UPDATE operation.

1331 **3.2 Symbols and abbreviations**

1332 **3.2.1**

1333 **CRUDN**

1334 Create Retrieve Update Delete Notify

1335 This is an acronym indicating which operations are possible on the Resource.

1336 **3.2.2**

1337 **CSV**

1338 Comma Separated Value List

1339 Comma Separated Value List is a construction to have more fields in 1 string separated by commas.

1340 If a value contains a comma then the comma can be escaped by adding “\” in front of the comma.

1341 **3.2.3**

1342 **OCF**

1343 Open Connectivity Foundation

1344 OCF is the standards organization which created and owns this specification.

1345 **3.2.4**

1346 **RAML**

1347 RESTful API modelling language

1348 RAML is a simple and succinct way of describing RESTful APIs. See RAML for further details.

1349 **3.2.5**

1350 **REST**

1351 Representational State Transfer

1352 REST is an architecture style for designing networked applications and relies on a stateless, client-server, cacheable communications protocol.

1354 **3.2.6**

1355 **TBD**

1356 To Be Determined

1357 **3.3 Conventions**

1358 In this specification a number of terms, conditions, mechanisms, sequences, parameters, events,
1359 states, or similar terms are printed with the first letter of each word in uppercase and the rest
1360 lowercase (e.g., Resource Type). Any lowercase uses of these words have the normal technical
1361 English meaning.

1362 **4 Document conventions and organization**

1363 This document lists all the Resource Types currently specified by OCF. The Resources are used
1364 by application profile device definitions. The Resource Types mentioned in this document can be
1365 used by any OCF conforming device in any OCF Collection or device representation.

1366 For the purposes of this document, the terms and definitions given in OCF Core Specification apply.

1367 **4.1 Notation**

1368 In this document, features are described as required, recommended, allowed or DEPRECATED as
1369 follows:

1370 Required (or shall or mandatory).

1371 These basic features shall be implemented to comply with OCF Resource Type Specification.

1372 The phrases “shall not”, and “PROHIBITED” indicate behaviour that is prohibited, i.e. that if
1373 performed means the implementation is not in compliance.

1374 Recommended (or should).

1375 These features add functionality supported by the OCF Resource Type Specification and
1376 should be implemented. Recommended features take advantage of the capabilities of the OCF
1377 Resource Type Specification, usually without imposing major increase of complexity. Notice
1378 that for compliance testing, if a recommended feature is implemented, it shall meet the
1379 specified requirements to be in compliance with these guidelines. Some recommended features
1380 could become requirements in the future. The phrase “should not” indicates behaviour that is
1381 permitted but not recommended.

1382 Allowed (or allowed).

1383 These features are neither required nor recommended by OCF Resource Type Specification,
1384 but if the feature is implemented, it shall meet the specified requirements to be in compliance
1385 with these guidelines.

1386 DEPRECATED

1387 Although these features are still described in this specification, they should not be implemented
1388 except for backward compatibility. The occurrence of a deprecated feature during operation of
1389 an implementation compliant with the current specification has no effect on the
1390 implementation’s operation and does not produce any error conditions. Backward compatibility
1391 may require that a feature is implemented and functions as specified but it shall never be used
1392 by implementations compliant with this specification.

1393 Conditionally allowed (CA)

1394 The definition or behaviour depends on a condition. If the specified condition is met, then the
1395 definition or behaviour is allowed, otherwise it is not allowed.

1396 Conditionally required (CR)

1397 The definition or behaviour depends on a condition. If the specified condition is met, then the
1398 definition or behaviour is required. Otherwise the definition or behaviour is allowed as default
1399 unless specifically defined as not allowed.

1400 Strings that are to be taken literally are enclosed in “double quotes”.

1401 Words that are emphasized are printed in *italic*.

1402 **4.2 Data types**

1403 This specification adopts the types defined in the OCF Core Specification with the exceptions
1404 defined in this Section

1405 All Properties in this specification that are defined as JSON number type shall be transmitted
1406 encoded as floating point values and not integer values. Reception of Properties defined as JSON
1407 number type shall be as defined in the OCF Core Specification. See OCF Core Specification
1408 Section 12.3 for specifics.

1409 **5 Baseline Model Constructs**

1410 **5.1 URI**

1411 The URIs mentioned in this document are non-normative, they may be vendor defined.

1412 An Instance of a Resource is indicated by the URI. When more than one instance of the same
1413 Resource Type is used in an OCF Device, different URIs for the different Resource instances shall
1414 be used.

1415 An implementation shall follow the requirements defined in the OCF Core Specification with respect
1416 to population of the URI. Please refer to the OCF Core Specification Sections 6.2 and 6.3 for
1417 specific details.

1418 **5.2 Interfaces**

1419 The OCF Core Specification specifies that all Resource Types have associated with them at least
1420 one Interface; this Interface is advertised during Resource discovery. In addition the OCF Core
1421 Specification defines a number of Interfaces that can be applied to an instance of a Resource Type.

1422 The Default Interface associated with all Resource Types defined in this specification shall be the
1423 supported interface listed first within the applicable enumeration in the definition of the Resource
1424 Type (see Section 6 Resource Type definitions); with an exception being when a Resource Type
1425 definition has either Sensor or Actuator interfaces as the Default Interface, in this instance an
1426 implementation shall select one of them as the default. Thus a Server hosting such a Resource
1427 Type shall enable either oic.if.s (if a Sensor) or oic.if.a (if an Actuator) as the Interface that is
1428 exposed via "/oic/res" in addition to the mandated baseline interface ("oic.if.baseline"). A Server
1429 may also support other Interfaces in addition to the one specified as the default.

1430 Note that the functionality associated with, or visibility of, an instance of any Resource exposed
1431 by a Device may be restricted depending upon local (per country or legislative region) regulatory
1432 requirements or other restrictions (e.g. with respect to Binary Switch in some jurisdictions the
1433 ability to remotely power on a connected device is restricted; a lock status could be read-only
1434 depending on the context). In such cases the Device shall not expose the actuator interface for
1435 the Resource ("oic.if.a"), the Device shall expose the Resource in "/oic/res" with the Sensor
1436 Interface ("oic.if.s") as the Default Interface in addition to any mandated interfaces.

1437 **5.3 RAML definition**

1438 The RAML definitions used in this document are normative. By extension all defined JSON
1439 payloads shall comply with the indicated JSON schema. Note that the defined schemas have
1440 extensions that include all OCF Core Specification defined (and mandated) Properties.

1441 The RAML definitions are used to describe the payloads of the CRUDN operations on the specified
1442 Resource Type. The CRUDN operations are defined in the OCF Core Specification. The OCF Core
1443 Specification also specifies additional Properties in the payloads of the CRUDN operations. The
1444 RAML definitions in this document are not of themselves sufficient to create an implementation,
1445 additional Properties defined in the Core specification need to be added to create a compliant
1446 implementation. This specification makes use of a subset of the responses supported by RAML
1447 specifics on the use of these responses are defined in Table 5-4 Return codes behaviour in RAML.
1448 Note that the actual values of success and error conditions are defined in the OCF Core
1449 Specification.

1450 The RAML definitions map the OCF CRUDN behaviour to the RAML as defined in Table 5-1.

1451 **Table 5-1 Conversion between OCF CRUDN and RAML definitions¹**

Resource	Create	Retrieve	Update	Delete	Notify
/example	put or post	get	put or post	delete	

1452 Notify is not part of an RAML definition but is defined in the Core specification. The semantics of
1453 a Notify are the same as the CRUDN Read value. All Resource Types defined in this specification
1454 support notification via the use of observe as defined in OCF Core Specification Section 11.4.2.

¹ Please refer to OCF Core Specification Table 26 for detailed semantics around the appropriate use of CoAP request methods

1455 **5.4 Property definition**

1456 **5.4.1 Common Properties**

1457 The OCF Core Specification specifies a number of Properties that may be defined for OCF
 1458 Resources. The Common Properties “if” and “rt” shall be specified for all Resource Types defined
 1459 in this specification; they are exposed within the OCF Core Specification defined /oic/res/ Resource
 1460 Type through which the OCF Server and its available Resources are discovered. The Common
 1461 Properties “p” and “n” may be specified for all Resource Types defined in this specification.

1462 If an OCF Client requires that these Properties be included in a Resource representation that is
 1463 provided in response to a RETRIEVE operation then the client shall select the OCF Core
 1464 Specification defined baseline interface (oic.if.baseline) by specifying this in a query parameter.

1465 **Table 5-2 Common Properties for OCF Resources**

Property Name	Property Title	Property Value	Value Type	Access Modes	Description
if	Interface	See OCF Core Specification Section 7.6.2	Array of string	Readonly	Core defined; Interface(s) supported by the Resource
rt	Resource type	See OCF Core Specification Section 7.4	Array of string	Readonly	Core defined; Resource type. The Resource Types are defined in this document. See Section 6
n	Name	See OCF Core Specification Section 7.3.2.5	string	Readonly	Core defined; human understandable name for the Resource.
id	Resource Identity	See OCF Core Specification Section 7.3.2.6	string	Readonly	Core defined; Unique identifier of the Resource (over all Resources in the OCF device)

1466

1467 **5.4.2 Resource Properties**

1468 The Properties against which the CRUDN operations are specified are defined with JSON schemas
 1469 (see JSON SCHEMA).

1470 A basic Resource Type is formulated around one single value denoting a physical property.

1471 Such a Resource Type is specified with the Properties as defined Table 5-3. Mandatory in the
 1472 table means that the Property shall be defined as part of the overall Resource Type schema; actual
 1473 inclusion of the Property as part of a returned or generated payload is dependent upon the schema
 1474 that applies to the operation being invoked.

1475 **Table 5-3 Property definitions of a Resource Type in the JSON schema**

1476

Property Name	Friendly Alias Name	Property Value	Value Type	Value Rules	Access Modes	Mandatory	Description
<value>,name may change dependent on the Resource	<value>, name may change dependent on the Resource	Dependent on the Resource	Dependent on the Resource	Dependent on the Resource	Dependent on the Resource	yes	The current value of the Resource
range	Range	[Min,Max]	array	Linear range	Read-only	no	Range of input values, specified as a two element array.
step	Step	Dependent on the Resource	Integer or Number	Dependent on the Resource	Read-only	no	Step value across the defined range
precision	Precision	Dependent on the Resource	Number	Dependent on the Resource	Read-only	no	Accuracy granularity of the exposed value

1477

1478 For Resources, which by their nature have more than one physical parameter, the value Property
 1479 can be replaced with multiple Properties specifying the different physical parameters. The type of
 1480 the value shall be indicated in the RAML definition of the Resource Type and should be suitable
 1481 for the conveyed value. All Property Names and Property Values defined in this specification are
 1482 case sensitive.

1483 **5.4.3 Basic Resource Schema**

1484 All Resource Types defined herein are represented as previously noted by JSON schemas. The
 1485 RAML definitions of the Resource Types embed the Resource Type specific schema elements.

1486 **5.4.4 CRUDN Operation Response Codes**

1487 A Resource can be created or updated depending on the Resource Type definition and the allowed
 1488 CRUDN operations. The operation may have different response codes with different meanings.
 1489 This is explained in Table 5-4.

1490

Table 5-4 Return codes behaviour in RAML

Response Code	Meaning
200	Payload of the response will confirm the change. The RAML definition will contain a schema to define the payload.

201	<p>Payload is the URL of the Resource that was created by the server as a result of a CREATE operation.</p> <p>The RAML definition will contain schema to define the payload.</p>
204	<p>Ok, everything went well, no payload provided.</p> <p>The RAML definition does not contain a schema.</p> <p>The RAML definition may even omit this value, since it is regarded as default behaviour of an OCF Server.</p>
403	<p>Case 1:</p> <p>In the case of a RETRIEVE on a Resource with the use of a query parameter selecting specific Property values; if the server does not support the values provided then this response should be returned.</p> <p>The response payload should include the allowed values for the query parameter.</p> <p>Case 2:</p> <p>The server could not CREATE or UPDATE the Resource due to a problem with the provided payload.</p> <p>For an UPDATE, unless otherwise stated in the Resource Type definition, the response payload should include the same schema defined for a 200; indicating the current Resource Property value(s).</p>

1491 **5.5 Example Resource Definitions**

1492 Please see the OCF Resource Types in Section 6 for examples of Resource Definitions. For an
 1493 example Resource Type that models an actuator refer to Section 6.8 Dimming; for an example
 1494 Resource Type that models a sensor refer to Section 6.39 Illuminance Sensor.

1495 **5.6 Observable Resource Types**

1496 The OCF Core Specification defines a mechanism by which Resources can advertise themselves
 1497 as “Observable” to an OCF Client. All Resource Types defined in this specification may be
 1498 observed. Whether or not a Resource Type is made observable via use of the Policy Link
 1499 Parameter is entirely implementation dependent.

1500 **5.6.1 Conditional Notification**

1501 All observable Resources may apply conditions to the generation of notifications that result from
 1502 the observe action, these conditions can be time based or value based or time and value based.
 1503 This is achieved by composing the Conditional Notification (oic.r.value.conditional) Resource Type
 1504 with an instance of an observable Resource; that is the Resource that is exposed by the Server
 1505 has an “rt” of “[“oic.r.<resource>”,“oic.r.value.conditional”]”.

1506 **5.6.1.1 Conditional Notification Property Summary**

1507 Table 5-5 Conditional Notification Properties summarizes the Properties provided by the
 1508 Conditional Notification Resource Type. At least one Property from the table shall be present in
 1509 an instance of the Resource Type.

Table 5-5 Conditional Notification Properties

Name	Type	R/W	Required	Description
threshold	number	RW	No	Amount by which the observed value changes before a notification is generated
minnotifyperiod	integer	RW	No	Minimum elapsed time in ms before a notification may be sent
maxnotifyperiod	integer	RW	No	Maximum elapsed time in ms after which a notification is sent

1511

1512 All Properties if exposed shall be set with initial values. All Properties may be exposed with a
 1513 value of "0" (zero); this indicates that the functionality associated with the Property is not active.
 1514 Any Client may update the exposed values subject to any ACL restrictions; such changes are
 1515 global and apply to all notifications that are sent to all observers. A notifier may reject an update
 1516 to the Property values; in such cases a diagnostic payload should be included in the rejection
 1517 response indicating the valid ranges for the Properties.

1518 **5.6.1.2 Property Definition: threshold**

1519 Minimum value change between two notifications. A notification shall be sent (within the
 1520 constraints of "minnotifyperiod") when the change since the last notification is greater than or equal
 1521 to this value. The measurement is done against the value in the last notification that was sent;
 1522 thus all notifications (within any "maxnotifyperiod" constraints that may be present) will carry values
 1523 that differ by at least "threshold". A "threshold" value of "0" means that no "threshold" is applied.

1524 **5.6.1.3 Property Definition: minnotifyperiod**

1525 Minimum time (in ms) that shall occur between notifications. If a value change condition is met
 1526 ("threshold" equalled or exceeded or any change in value if threshold is not present) before
 1527 expiration the notification shall not be sent till the period expires. If the Property is present and set
 1528 to "0" then no minimum notify period timer is run; if the Property is present and with a value greater
 1529 than "0" then a minimum notify period timer shall be run equal to the value. The Property value
 1530 itself is initially populated by the notifier. If the Property is not present the minimum notify period
 1531 is up to the notifier. The timer shall be reset each time a notification is sent.

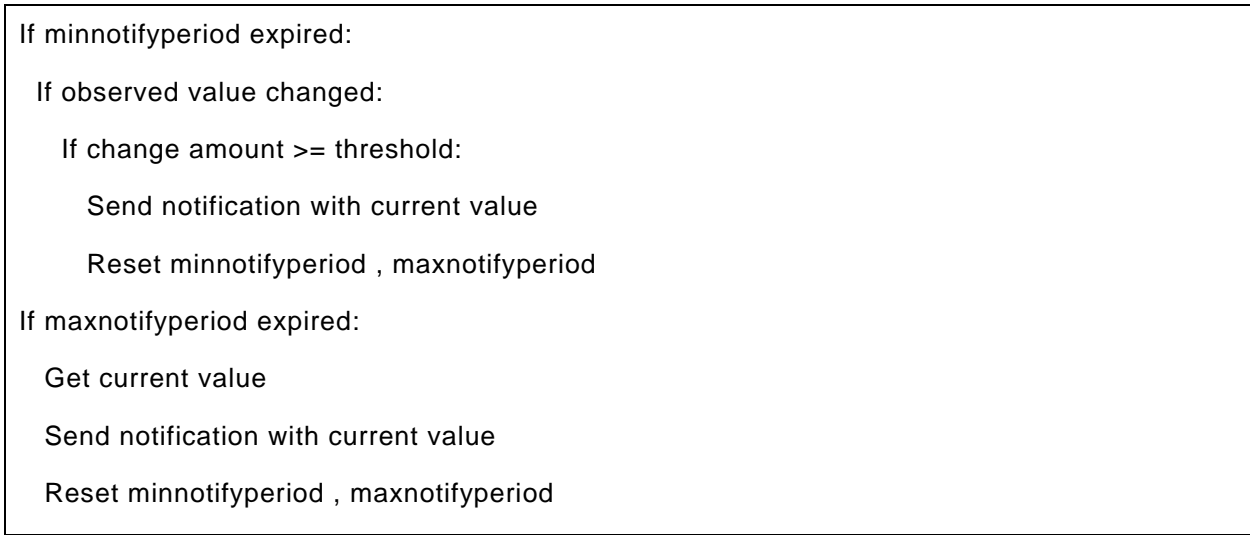
1532 **5.6.1.4 Property Definition: maxnotifyperiod**

1533 Maximum time (in ms) that the notifier shall not exceed between notifications. When the timer
 1534 expires a notification shall be sent. If present and set to "0" then no maximum notify period timer
 1535 is run; if present and with a value greater than 0 then a maximum notify period timer shall be run
 1536 equal to the value. The Property value itself shall be initially populated by the notifier. When both
 1537 "minnotifyperiod" and "maxnotifyperiod" are present and both are non-zero the value of
 1538 "maxnotifyperiod" shall be larger than the "minnotifyperiod". If not present the value shall be set
 1539 by the notifier. The timer shall be reset each time a notification is sent.

1540 **5.6.1.5 Governing State Machine**

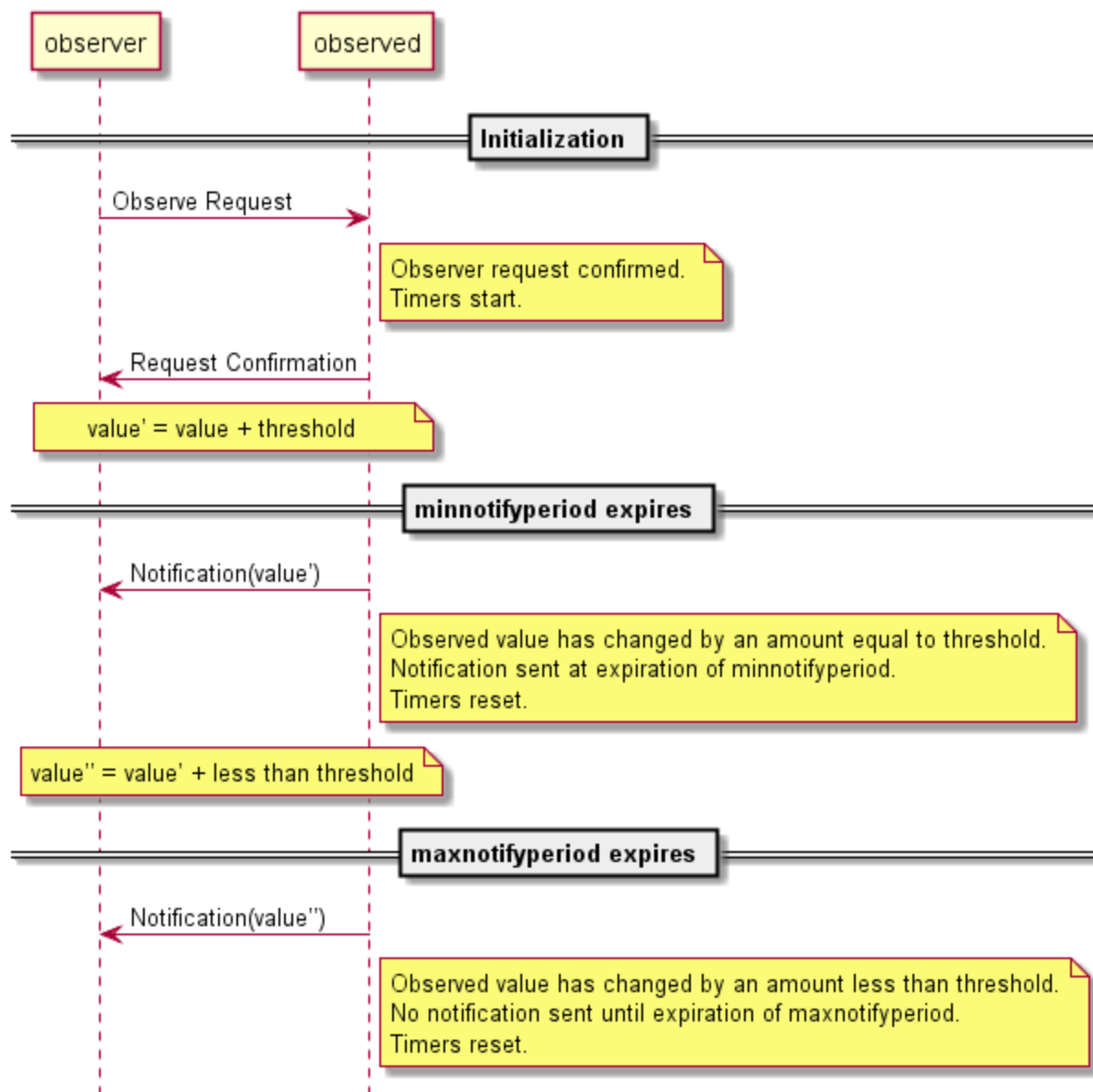
1541 The "minnotifyperiod" and "maxnotifyperiod" timers are restarted each time a notification is sent
 1542 (response to the Observe). A notification is sent when value change condition (threshold) and
 1543 "minnotifyperiod" are both met if both are present. If the observed Property value subsequently
 1544 drops beneath threshold before the expiration of "minnotifyperiod" the notifier may take no action
 1545 or a notification may be sent on expiration of "minnotifyperiod" containing the current observed
 1546 Property value (at the time of the notification). If there are no timer constraints; then notifications
 1547 are sent whenever the observed Property value has changed by an amount greater than or equal
 1548 to "threshold".

1549 Overall logic is defined in Figure 1: Overall conditional notification logic. Figure 2: Conditional
1550 Notification Example Flow provides an illustrative sequence.



1551 **Figure 1: Overall conditional notification logic**

1552



1553
1554
1555
1556

Figure 2: Conditional Notification Example Flow

1557 **5.7 Composite Resource Types**

1558 Composite Resource Types are Resources that comprises of one or more single or other composite
1559 Resource Types, an example of which is shown in Table 5-6 RAML example of Composite
1560 Resource Type. The Composite Resource Type can be viewed upon as a new single Resource
1561 Type. The Composite Resource Type mechanism is a powerful concept since it uses existing
1562 Resource Types in a new combination to express more contexts to a Resource without specifying
1563 new single unit Resource Types.

1564 Composite Resource Types are defined by linking the referenced existing Resource values in to a
1565 Collection.

1566 The linking is done by using an array of Links; refer to the OCF Core Specification section 7.7.2
1567 for more details. Note that the example listed below contains a partial schema of this definition as
1568 it is for descriptive purpose only. The Property name of the array is "links". The relationship type
1569 shall be "contains", denoting that the composite contains other Resource Types that make up the
1570 Composite Resource Type.

1571 The access to the listed Resources can be achieved in a single operation by using the OCF Core
1572 Specification defined oic.if.ll interface.

1573 **Table 5-6 RAML example of Composite Resource**

```
##RAML 0.8
title: OCFExampleCompositeResource
version: v1.0

/CompositeExample:
  description: |
    CompositeExample description.
    If the CompositeExample is implemented as per the example RAML the following values apply:
    The name of the Resource is "CompositeExample Name"
    The Resource Type is "oic.r.compositeexample"
    The Interface (if) can denote Sensor or Actuator
    The value of the ActuatorExample is modeled as 2 references to other implemented Resources
    In the example oic.r.SensorExample and oic.r.ActuatorExample are used.
  get:
    description: |
      retrieves the composite example Resource.
    responses:
      200:
        body:
          application/json:
            schema: |
              {
                "id": "http://openinterconnect.org/schemas/oic.r.baseResource#",
                "$schema": "http://json-schema.org/schema#",
                "title": "SensorExample",
                "definitions": {
                  "oic.r.compositeexample": {
                    "type": "object",
                    "properties": {
                      "links": {
                        "type": "array",
                        "items": {
                          "$ref": "oic.oic-link-schema.json#"
                        }
                      }
                    }
                  }
                },
                "type": "object",
                "allOf": [
                  {"$ref": "oic.core.json#/definitions/oic.core"},
                  {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
                  {"$ref": "#/definitions/oic.r.compositeexample"}
                ],
                "required": ["n","id","links"]
              }
            example: |
```

```

    {
      "n":      "CompositeExample Name",
      "id":    "composite_example_id",
      "links": [
        {
          "href": "/my_1st_reference",
          "rel":  "contains",
          "rt":   ["oic.r.actuatorexample"],
          "if":   ["oic.if.a"]
        },
        {
          "href": "/my_2nd_reference",
          "rel":  "contains",
          "rt":   ["oic.r.sensorexample"],
          "if":   ["oic.if.s"]
        }
      ]
    }
  ]
}

```

1574

1575 **5.8 Specification Version**

1576 Devices conformant to this specification version shall add the string “ocf.res.1.3.0” to the dmV
 1577 Property in oic.wk.d.

1578 **6 Resource Type definitions**

1579 This section contains definitions for all Resource Types; the complete set is listed in Table 6-1
 1580 Alphabetical list of Resource Types. Annex A.1 provides the basic underlying schema definition
 1581 against which all other Resource Types are constructed. Annex A.1 also provides an example of
 1582 the use of the “oic.if.baseline” interface that all Resource Types shall support. All other sections
 1583 provide example representations of the Resource Type following the application of the default
 1584 interface that is applied for that specific Resource Type.

1585 All Resource Types shall be created in accordance with the OCF Core Specification Section 7.2.
 1586 All comparisons against a Resource Type shall be case insensitive.

1587 All Resource Types in this document are prefixed with “oic.r” denoting that it is an OCF defined
 1588 Resource Type.

1589 **Table 6-1 Alphabetical list of Resource Types**

1590

Friendly (informative)	Name	Resource Type (rt)	Section
Acceleration Sensor		oic.r.sensor.acceleration	6.55
Activity Count		oic.r.sensor.activity.count	6.23
Air Quality		oic.r.airquality	6.65
Air Quality Collection		oic.r.airqualitycollection	6.66
Altimeter		oic.r.altimeter	6.60

Atmospheric Pressure	oic.r.sensor.atmosphericpressure	6.24
Air Flow	oic.r.airflow	6.1
Air Flow Control	oic.r.airflowcontrol	6.2
Audio Controls	oic.r.audio	6.25
Auto Focus	oic.r.autofocus	6.26
Automatic Document Feeder	oic.r.automaticdocumentfeeder	6.27
Auto White Balance	oic.r.colour.autowhitebalance	6.31
Basic Resource Schema	Not Applicable	Annex A.1
Battery	oic.r.energy.battery	6.3
Battery Material	oic.r.batterymaterial	6.78
Binary switch	oic.r.switch.binary	6.4
Brewing	oic.r.brewing	6.79
Brightness	oic.r.light.brightness	6.5
Button Switch	oic.r.button	6.28
Carbon Dioxide Sensor	oic.r.sensor.carbondioxide	6.29
Carbon Monoxide Sensor	oic.r.sensor.carbonmonoxide	6.30
Clock	oic.r.clock	6.61
Colour Chroma	oic.r.colour.chroma	6.6
Colour Hue Saturation	oic.r.colour.hs	6.77
Colour RGB	oic.r.colour.rgb	6.7
Colour Saturation	oic.r.colour.saturation	6.32
Colour Space Coordinates	oic.r.colour.csc	6.75
Colour Temperature	oic.r.colour.temperature	6.76

Consumable	oic.r.consumable	6.67
Consumable Collection	oic.r.consumablecollection	6.68
Contact Sensor	oic.r.sensor.contact	6.33
Delay Defrost	oic.r.delaydefrost	6.69
Demand Response Load Control (DRLC)	oic.r.energy.drlc	6.34
Dimming	oic.r.light.dimming	6.8
Door	oic.r.door	6.9
Ecomode	oic.r.ecomode	6.70
Electric Vehicle Connector	oic.r.vehicle.connector	6.85
Electrical Energy	oic.r.energy.electrical	6.80
Energy Consumption	oic.r.energy.consumption	6.10
Energy Generation	oic.r.energy.generation	6.81
Energy Overload/Circuit Breaker	oic.r.energy.overload	6.35
Energy Usage	oic.r.energy.usage	6.11
Foaming	oic.r.foaming	6.82
Generic Sensor	oic.r.sensor	6.36
Geolocation Sensor	oic.r.sensor.geolocation	6.62
Glass Break Sensor	oic.r.sensor.glassbreak	6.37
Grinder	oic.r.grinder	6.83
Heart Rate Zone Sensor	oic.r.sensor.heart.zone	6.38
Heating Zone	oic.r.heatingzone	6.71
Heating Zone Collection	oic.r.heatingzonecollection	6.72
Height	oic.r.height	6.63

Humidity	oic.r.humidity	6.12
Icemaker	oic.r.icemaker	6.13
Illuminance Sensor	oic.r.sensor.illuminance	6.39
Liquid Level	oic.r.liquid.level	6.84
Lock	oic.r.lock.status	6.14
Lock Code	oic.r.lock.code	6.15
Magnetic Field Direction	oic.r.sensor.magneticfielddirection	6.40
Media	oic.r.media	6.41
Media Source	oic.r.mediasource	6.42
Media Source List	oic.r.mediasourcelist	6.43
Media Source Input	oic.r.media.input	6.44
Media Source Output	oic.r.media.output	6.45
Mode	oic.r.mode	6.16
Movement	oic.r.movement.linear	6.53
Motion Sensor	oic.r.sensor.motion	6.46
Night Mode	oic.r.nightmode	6.47
Open Level	oic.r.openlevel	6.17
Operational State	oic.r.operational.state	6.18
Pan Tilt Zoom Movement	oic.r.ptz	6.49
Presence Sensor	oic.r.sensor.presence	6.48
Ramp Time	oic.r.light.ramptime	6.19
Refrigeration	oic.r.refrigeration	6.20
Selectable Levels	oic.r.selectablelevels	6.73

Signal Strength	oic.r.signalstrength	6.50
Sleep Sensor	oic.r.sensor.sleep	6.57
Smoke Sensor	oic.r.sensor.smoke	6.58
Speech Synthesis	oic.r.speech.tts	6.51
Temperature	oic.r.temperature	6.21
Three Axis Sensor	oic.r.sensor.threeaxis	6.59
Time Period	oic.r.time.period	6.22
Time Stamp	oic.r.time.stamp	6.86
Touch Sensor	oic.r.sensor.touch	6.52
UV Radiation	oic.r.sensor.radiation.uv	6.53
Value Conditional	oic.r.value.conditional	6.74
Water Sensor	oic.r.sensor.water	6.54
Weight	oic.r.weight	6.64

1591

1592 **6.1 Air Flow**

1593 **6.1.1 Introduction**

1594 This resource describes the properties associated with air flow. The supporteddirections is the set
 1595 of valid values for the direction property for a particular instance of this resource type. The direction
 1596 is the directionality of the air flow if applicable, if supporteddirections is also present it must be a
 1597 value from that set. Direction values are dependent on the capabilities of the unit. The speed is an
 1598 integer representing the current speed level for the unit. The range (from oic.r.baseresource) is an
 1599 array of the min,max values for the speed level. If not present the range defaults to [0,100].
 1600 automode is the status of the automode feature; Off means automode is not enabled, On means
 1601 automode is active and the speed is automatically controlled by the device.

1602 **6.1.2 Example URI**

1603 /AirFlowResURI

1604 **6.1.3 Resource Type**

1605 The resource type (rt) is defined as: oic.r.airflow.

1606 **6.1.4 RAML Definition**

```

1607 #%RAML 0.8
1608 title: OICAirFlow
1609 version: v1.1.0-20160519
1610 traits:
1611   - interface :
1612     queryParameters:
  
```

```

1613     if:
1614         enum: ["oic.if.a", "oic.if.baseline"]
1615
1616 /AirFlowResURI:
1617     description: |
1618         This resource describes the properties associated with air flow.
1619         The supporteddirections is the set of valid values for the direction property for a particular
1620 instance of this resource type.
1621         The direction is the directionality of the air flow if applicable, if supporteddirections is
1622 also present it must be a value from that set.
1623         Direction values are dependent on the capabilities of the unit.
1624         The speed is an integer representing the current speed level for the unit.
1625         The range (from oic.r.baseresource) is an array of the min,max values for the speed level
1626         If not present the range defaults to [0,100].
1627         automode is the status of the automode feature; Off means automode is not enabled, On means
1628 automode is active and the speed is automatically controlled by the device.
1629
1630     is : ['interface']
1631     get:
1632         description: |
1633             Retrieves the current air flow values.
1634
1635     responses :
1636         200:
1637             body:
1638                 application/json:
1639                     schema: /
1640                         {
1641                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1642                             "$schema": "http://json-schema.org/draft-04/schema#",
1643                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1644 rights reserved.",
1645                             "title": "Air Flow",
1646                             "definitions": {
1647                                 "oic.r.airflow": {
1648                                     "type": "object",
1649                                     "properties": {
1650                                         "supporteddirections": {
1651                                             "type": "array",
1652                                             "description": "Array of possible direction settings for this instance of
1653 the Resource Type",
1654                                             "readOnly": true,
1655                                             "items": {
1656                                                 "type": "string",
1657                                                 "minItems": 1,
1658                                                 "uniqueItems": true
1659                                             }
1660                                         },
1661                                         "direction": {
1662                                             "type": "string",
1663                                             "description": "Directionality of the air flow"
1664                                         },
1665                                         "speed": {
1666                                             "type": "integer",
1667                                             "description": "Current speed level"
1668                                         },
1669                                         "automode": {
1670                                             "enum": ["On", "Off"],
1671                                             "description": "Status of the automode feature, if on speed is set by the
1672 device"
1673                                         }
1674                                     }
1675                                 }
1676                             },
1677                             "type": "object",

```

```

1678         "allOf": [
1679             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
1680             { "$ref": "#/definitions/oic.r.airflow" }
1681         ],
1682         "required": ["speed"]
1683     }
1684
1685     example: /
1686     {
1687         "rt":          ["oic.r.airflow"],
1688         "id":          "unique_example_id",
1689         "supporteddirections": ["left", "right", "centre"],
1690         "direction":   "left",
1691         "speed":       5,
1692         "range":       [1,7],
1693         "automode":    "Off"
1694     }
1695
1696     post:
1697         description: |
1698             Sets the current air flow values.
1699             Only direction and speed may be set by an update operation.
1700
1701     body:
1702         application/json:
1703             schema: /
1704             {
1705                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1706                 "$schema": "http://json-schema.org/draft-04/schema#",
1707                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
1708 reserved.",
1709                 "title": "Air Flow",
1710                 "definitions": {
1711                     "oic.r.airflow": {
1712                         "type": "object",
1713                         "properties": {
1714                             "supporteddirections": {
1715                                 "type": "array",
1716                                 "description": "Array of possible direction settings for this instance of the
1717 Resource Type",
1718                                 "readOnly": true,
1719                                 "items": {
1720                                     "type": "string",
1721                                     "minItems": 1,
1722                                     "uniqueItems": true
1723                                 }
1724                             },
1725                             "direction": {
1726                                 "type": "string",
1727                                 "description": "Directionality of the air flow"
1728                             },
1729                             "speed": {
1730                                 "type": "integer",
1731                                 "description": "Current speed level"
1732                             },
1733                             "automode": {
1734                                 "enum": ["On", "Off"],
1735                                 "description": "Status of the automode feature, if on speed is set by the
1736 device"
1737                             }
1738                         }
1739                     }
1740                 },
1741                 "type": "object",
1742                 "allOf": [
1743                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
1744                     { "$ref": "#/definitions/oic.r.airflow" }

```

```

1745         ],
1746         "required": ["speed"]
1747     }
1748
1749     example: /
1750     {
1751         "id":         "unique_example_id",
1752         "direction": "right",
1753         "speed":     3
1754     }
1755
1756     responses :
1757     200:
1758         body:
1759         application/json:
1760             schema: /
1761             {
1762                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1763                 "$schema": "http://json-schema.org/draft-04/schema#",
1764                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1765 rights reserved.",
1766                 "title": "Air Flow",
1767                 "definitions": {
1768                     "oic.r.airflow": {
1769                         "type": "object",
1770                         "properties": {
1771                             "supporteddirections": {
1772                                 "type": "array",
1773                                 "description": "Array of possible direction settings for this instance of
1774 the Resource Type",
1775                                 "readOnly": true,
1776                                 "items": {
1777                                     "type": "string",
1778                                     "minItems": 1,
1779                                     "uniqueItems": true
1780                                 }
1781                             },
1782                             "direction": {
1783                                 "type": "string",
1784                                 "description": "Directionality of the air flow"
1785                             },
1786                             "speed": {
1787                                 "type": "integer",
1788                                 "description": "Current speed level"
1789                             },
1790                             "automode": {
1791                                 "enum": ["On", "Off"],
1792                                 "description": "Status of the automode feature, if on speed is set by the
1793 device"
1794                             }
1795                         }
1796                     }
1797                 },
1798                 "type": "object",
1799                 "allOf": [
1800                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1801                     {"$ref": "#/definitions/oic.r.airflow"}
1802                 ],
1803                 "required": ["speed"]
1804             }
1805
1806     example: /
1807     {
1808         "id":         "unique_example_id",
1809         "direction": "right",
1810         "speed":     3

```

```

1811     }
1812
1813 403:
1814     description: |
1815     This response is generated by the OCF Server when the client sends:
1816     An update with an invalid property value for direction.
1817     An update with an out of range property value for speed.
1818     The server may respond with the current resource representation.
1819
1820     body:
1821     application/json:
1822         schema: /
1823         {
1824             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1825             "$schema": "http://json-schema.org/draft-04/schema#",
1826             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1827 rights reserved.",
1828             "title": "Air Flow",
1829             "definitions": {
1830                 "oic.r.airflow": {
1831                     "type": "object",
1832                     "properties": {
1833                         "supporteddirections": {
1834                             "type": "array",
1835                             "description": "Array of possible direction settings for this instance of
1836 the Resource Type",
1837                             "readOnly": true,
1838                             "items": {
1839                                 "type": "string",
1840                                 "minItems": 1,
1841                                 "uniqueItems": true
1842                             }
1843                         },
1844                         "direction": {
1845                             "type": "string",
1846                             "description": "Directionality of the air flow"
1847                         },
1848                         "speed": {
1849                             "type": "integer",
1850                             "description": "Current speed level"
1851                         },
1852                         "automode": {
1853                             "enum": ["On", "Off"],
1854                             "description": "Status of the automode feature, if on speed is set by the
1855 device"
1856                         }
1857                     }
1858                 },
1859             },
1860             "type": "object",
1861             "allOf": [
1862                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1863                 {"$ref": "#/definitions/oic.r.airflow"}
1864             ],
1865             "required": ["speed"]
1866         }
1867
1868     example: /
1869     {
1870         "id": "unique_example_id",
1871         "supporteddirections": ["left", "right", "centre"],
1872         "direction": "right",
1873         "speed": 3
1874     }
1875

```

1876 **6.1.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
automode	multiple types: see schema			Status of the automode feature, if on speed is set by the device
direction	string			Directionality of the air flow
supporteddirections	array: see schema		Read Only	Array of possible direction settings for this instance of the Resource Type
speed	integer	yes		Current speed level

1877 **6.1.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirFlowResURI		get	post		

1878 **6.2 Air Flow Control**

1879 **6.2.1 Introduction**

1880 This resource describes the attributes associated with control of air flow, for example as modelled
 1881 by a Thermostat (fan), Room A/C or other device. The resource is a composite resource being
 1882 made up as a collection of: AirFlow Resource BinarySwitch Resource

1883 **6.2.2 Example URI**

1884 /AirFlowControlResURI

1885 **6.2.3 Resource Type**

1886 The resource type (rt) is defined as: oic.r.airflowcontrol.

1887 **6.2.4 RAML Definition**

```

1888 #RAML 0.8
1889 title: OICAirFlowControl
1890 version: v1.1.0-20160519
1891 traits:
1892   - interface-b :
1893     queryParameters:
1894       if:
1895         enum: ["oic.if.b"]
1896   - interface-all :
1897     queryParameters:
1898       if:
1899         enum: ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
1900
1901 /AirFlowControlResURI:
1902   description: |
1903     This resource describes the attributes associated with control of air flow,
1904     for example as modelled by a Thermostat (fan), Room A/C or other device.
1905     The resource is a composite resource being made up as a collection of:
1906     AirFlow Resource
1907     BinarySwitch Resource
1908
1909   get:
  
```

```

1910     description: |
1911         Retrieves the current air flow control values.
1912
1913     is : ['interface-all']
1914     responses :
1915         200:
1916             body:
1917                 application/json:
1918                     schema: /
1919                         {
1920                             "id":
1921 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl.json#",
1922                             "$schema": "http://json-schema.org/draft-04/schema#",
1923                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1924 rights reserved.",
1925                             "title": "Air Flow Control",
1926                             "definitions": {
1927                                 "oic.r.airflowcontrol": {
1928                                     "type": "object",
1929                                     "properties": {
1930                                         "airFlowControl": {
1931                                             "type": "array",
1932                                             "minItems": 2,
1933                                             "maxItems": 2,
1934                                             "items": {
1935                                                 "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
1936                                             }
1937                                         }
1938                                     }
1939                                 },
1940                             },
1941                             "type": "object",
1942                             "allOf": [
1943                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1944                                 {"$ref": "#/definitions/oic.r.airflowcontrol"}
1945                             ],
1946                             "required": ["airFlowControl"]
1947                         }
1948
1949     example: /
1950         {
1951             "rt": ["oic.r.airflowcontrol"],
1952             "id": "unique_example_id",
1953             "airFlowControl": [
1954                 {
1955                     "href": "/BinarySwitchResURI",
1956                     "rel": "contains",
1957                     "rt": ["oic.r.switch.binary"],
1958                     "if": ["oic.if.a"],
1959                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
1960                 },
1961                 {
1962                     "href": "/AirFlowResURI",
1963                     "rel": "contains",
1964                     "rt": ["oic.r.airflow"],
1965                     "if": ["oic.if.a"],
1966                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
1967                 }
1968             ]
1969         }
1970
1971     post:
1972         description: |
1973             Sets the current air flow control values using the batch interface
1974

```

```

1975     is : ['interface-b']
1976     body:
1977     application/json:
1978         schema: /
1979             {
1980                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
1981 Batch.json#",
1982                 "$schema": "http://json-schema.org/draft-04/schema#",
1983                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
1984 reserved.",
1985                 "title": "Air Flow Control",
1986                 "definitions": {
1987                     "oic.r.airflowcontrol": {
1988                         "type": "object",
1989                         "properties": {
1990                             "airFlowControl": {
1991                                 "type": "array",
1992                                 "items": {
1993                                     "anyOf": [
1994                                         {"$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary"},
1995                                         {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
1996                                     ]
1997                                 }
1998                             }
1999                         }
2000                     }
2001                 },
2002                 "type": "object",
2003                 "allOf": [
2004                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2005                     {"$ref": "#/definitions/oic.r.airflowcontrol"}
2006                 ],
2007                 "required": ["airFlowControl"]
2008             }
2009
2010     example: /
2011         {
2012             "id": "unique_example_id",
2013             "airFlowControl": [
2014                 {
2015                     "id": "unique_example_id",
2016                     "value": true
2017                 },
2018                 {
2019                     "id": "unique_example_id",
2020                     "direction": "right",
2021                     "speed": 3
2022                 }
2023             ]
2024         }
2025
2026     responses :
2027     200:
2028         body:
2029         application/json:
2030             schema: /
2031                 {
2032                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
2033 Batch.json#",
2034                     "$schema": "http://json-schema.org/draft-04/schema#",
2035                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2036 rights reserved.",
2037                     "title": "Air Flow Control",
2038                     "definitions": {
2039                         "oic.r.airflowcontrol": {

```



```

2040         "type": "object",
2041         "properties": {
2042             "airFlowControl": {
2043                 "type": "array",
2044                 "items": {
2045                     "anyOf": [
2046                         {"$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary"},
2047                         {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
2048                     ]
2049                 }
2050             }
2051         }
2052     },
2053 },
2054 "type": "object",
2055 "allOf": [
2056     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2057     {"$ref": "#/definitions/oic.r.airflowcontrol"}
2058 ],
2059 "required": ["airFlowControl"]
2060 }
2061

```

```

2062 example: /
2063 {
2064     "id": "unique_example_id",
2065     "airFlowControl": [
2066         {
2067             "id": "unique_example_id",
2068             "value": true
2069         },
2070         {
2071             "id": "unique_example_id",
2072             "direction": "right",
2073             "speed": 3
2074         }
2075     ]
2076 }
2077

```

2078 403:

```

2079 description: |
2080     This response is generated by the OIC Server when the client sends:
2081     An update with an invalid property value for direction.
2082     An update with an out of range property value for speed.
2083     The server responds with the current resource representation.
2084

```

2085 body:

2086 application/json:

```

2087 schema: /
2088 {
2089     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
2090 Batch.json#",
2091     "$schema": "http://json-schema.org/draft-04/schema#",
2092     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2093 rights reserved.",
2094     "title": "Air Flow Control",
2095     "definitions": {
2096         "oic.r.airflowcontrol": {
2097             "type": "object",
2098             "properties": {
2099                 "airFlowControl": {
2100                     "type": "array",
2101                     "items": {
2102                         "anyOf": [
2103                             {"$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary"},
2104                             {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
2105                         ]
2106                     }
2107                 }
2108             }
2109         }
2110     }
2111 }

```

```

2107     }
2108   }
2109 }
2110 },
2111 "type": "object",
2112 "allOf": [
2113   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2114   {"$ref": "#/definitions/oic.r.airflowcontrol"}
2115 ],
2116 "required": ["airFlowControl"]
2117 }
2118
2119 example: /
2120 {
2121   "id": "unique_example_id",
2122   "airFlowControl": [
2123     {
2124       "id": "unique_example_id",
2125       "value": true
2126     },
2127     {
2128       "id": "unique_example_id",
2129       "direction": "right",
2130       "speed": 3
2131     }
2132   ]
2133 }
2134

```

2135 6.2.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
airFlowControl	array: see schema	yes		

2136 6.2.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AirFlowControlResURI		get	post		

2137 6.3 Battery

2138 6.3.1 Introduction

2139 This resource describes the attributes associated with a battery. The charge is an integer showing
 2140 the current battery charge level as a percentage in the range 0 (fully discharged) to 100 (fully
 2141 charged). The capacity represents the total capacity of battery in Amp Hours (Ah). The charging
 2142 status and discharging status are represented by boolean values set to "True" indicating enabled
 2143 and "False" indicating disabled. Low battery status is represented by a boolean value set to "True"
 2144 indicating low charge level and "False" indicating otherwise, based upon the battery threshold
 2145 represented as a percentage.

2146 6.3.2 Example URI

2147 /BatteryResURI

2148 6.3.3 Resource Type

2149 The resource type (rt) is defined as: oic.r.energy.battery.

2150 6.3.4 RAML Definition

```

2151 #%RAML 0.8
2152 title: Battery
2153 version: v1.2.0-20170814
2154 traits:
2155   - interface :
2156     queryParameters:

```

```

2157     if:
2158         enum: ["oic.if.rw", "oic.if.baseline"]
2159
2160 /BatteryResURI:
2161     description: |
2162         This resource describes the attributes associated with a battery
2163         The charge is an integer showing the current battery charge level as a percentage in the range
2164         0 (fully discharged) to 100 (fully charged)
2165         The capacity represents the total capacity of battery in Amp Hours (Ah)
2166         The charging status and discharging status are represented by boolean values set to "True"
2167         indicating enabled and "False" indicating disabled
2168         Low battery status is represented by a boolean value set to "True" indicating low charge level
2169         and "False" indicating otherwise, based upon the battery threshold represented as a percentage.
2170
2171     is : ['interface']
2172     get:
2173         description: |
2174             Retrieves the state of the battery.
2175
2176     responses :
2177         200:
2178             body:
2179                 application/json:
2180                     schema: /
2181                         {
2182                             "id":
2183                             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.battery.json#",
2184                             "$schema": "http://json-schema.org/draft-04/schema#",
2185                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2186                             rights reserved.",
2187                             "title": "Battery",
2188                             "definitions": {
2189                                 "oic.r.energy.battery": {
2190                                     "type": "object",
2191                                     "properties": {
2192                                         "charge" : {
2193                                             "type": "integer",
2194                                             "description": "The current charge percentage.",
2195                                             "readOnly": true,
2196                                             "minimum": 0,
2197                                             "maximum": 100
2198                                         },
2199                                         "capacity" : {
2200                                             "type": "number",
2201                                             "description": "The total capacity in Amp-hours (Ah).",
2202                                             "readOnly": true
2203                                         },
2204                                         "charging" : {
2205                                             "type": "boolean",
2206                                             "description": "The status of charging.",
2207                                             "readOnly": true
2208                                         },
2209                                         "discharging" : {
2210                                             "type": "boolean",
2211                                             "description": "The status of discharging.",
2212                                             "readOnly": true
2213                                         },
2214                                         "lowbattery" : {
2215                                             "type": "boolean",
2216                                             "description": "The status of the low battery warning based upon the
2217                                             defined threshold.",
2218                                             "readOnly": true
2219                                         },
2220                                         "batterythreshold" : {
2221                                             "type": "integer",

```

```

2222         "description": "The threshold percentage for the low battery warning.",
2223         "minimum": 0,
2224         "maximum": 100
2225     }
2226 }
2227 }
2228 },
2229 "type": "object",
2230 "allOf": [
2231     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2232     {"$ref": "#/definitions/oic.r.energy.battery"}
2233 ],
2234 "required": [ "charge" ]
2235 }
2236

```

```

2237 example: /
2238 {
2239     "rt":      ["oic.r.energy.battery"],
2240     "id":      "unique_example_id",
2241     "charge": 50,
2242     "capacity": 3000,
2243     "charging": true,
2244     "discharging": false,
2245     "lowbattery": false,
2246     "batterythreshold": 20
2247 }
2248

```

2249 **post:**

```

2250     description: |
2251         Sets current battery values
2252

```

```

2253     body:
2254         application/json:

```

```

2255         schema: /
2256         {
2257             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.battery-
2258 Update.json#",
2259             "$schema": "http://json-schema.org/draft-04/schema#",
2260             "description": "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
2261 reserved.",
2262             "title": "Battery",
2263             "definitions": {
2264                 "oic.r.energy.battery": {
2265                     "type": "object",
2266                     "properties": {
2267                         "batterythreshold" : {
2268                             "type": "integer",
2269                             "description": "The threshold percentage for the low battery warning.",
2270                             "minimum": 0,
2271                             "maximum": 100
2272                         }
2273                     }
2274                 }
2275             },
2276             "type": "object",
2277             "allOf": [
2278                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2279                 {"$ref": "#/definitions/oic.r.energy.battery"}
2280             ],
2281             "required": [ "batterythreshold" ]
2282         }
2283

```

```

2284 example: /
2285 {
2286     "id":      "unique_example_id",
2287     "batterythreshold": 20

```

```

2288     }
2289
2290     responses :
2291         200:
2292             body:
2293                 application/json:
2294                     schema: /
2295                         {
2296                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.battery-
2297 Update.json#",
2298                             "$schema": "http://json-schema.org/draft-04/schema#",
2299                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
2300 reserved.",
2301                             "title": "Battery",
2302                             "definitions": {
2303                                 "oic.r.energy.battery": {
2304                                     "type": "object",
2305                                     "properties": {
2306                                         "batterythreshold" : {
2307                                             "type": "integer",
2308                                             "description": "The threshold percentage for the low battery warning.",
2309                                             "minimum": 0,
2310                                             "maximum": 100
2311                                         }
2312                                     }
2313                                 },
2314                             },
2315                             "type": "object",
2316                             "allOf": [
2317                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2318                                 {"$ref": "#/definitions/oic.r.energy.battery"}
2319                             ],
2320                             "required": [ "batterythreshold" ]
2321                         }
2322
2323                     example: /
2324                         {
2325                             "id": "unique_example_id",
2326                             "batterythreshold": 20
2327                         }
2328
2329

```

6.3.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
discharging	boolean		Read Only	The status of discharging.
lowbattery	boolean		Read Only	The status of the low battery warning based upon the defined threshold.
capacity	number		Read Only	The total capacity in Amp-hours (Ah).
batterythreshold	integer			The threshold percentage for the low battery warning.
charge	integer	yes	Read Only	The current charge percentage.

charging	boolean		Read Only	The status of charging.
----------	---------	--	-----------	-------------------------

2330 **6.3.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BatteryResURI		get	post		

2331 **6.4 Binary Switch**

2332 **6.4.1 Introduction**

2333 This resource describes a binary switch (on/off). The value is a boolean. A value of 'true' means
2334 that the switch is on. A value of 'false' means that the switch is off.

2335 **6.4.2 Example URI**

2336 /BinarySwitchResURI

2337 **6.4.3 Resource Type**

2338 The resource type (rt) is defined as: oic.r.switch.binary.

2339 **6.4.4 RAML Definition**

```

2340 #%RAML 0.8
2341 title: OICBinarySwitch
2342 version: v1.1.0-20160519
2343 traits:
2344   - interface :
2345     queryParameters:
2346       if:
2347         enum: ["oic.if.a", "oic.if.baseline"]
2348
2349 /BinarySwitchResURI:
2350   description: |
2351     This resource describes a binary switch (on/off).
2352     The value is a boolean.
2353     A value of 'true' means that the switch is on.
2354     A value of 'false' means that the switch is off.
2355
2356   is : ['interface']
2357   get:
2358     responses :
2359       200:
2360         body:
2361           application/json:
2362             schema: /
2363               {
2364                 "id":
2365                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2366                 "$schema": "http://json-schema.org/draft-04/schema#",
2367                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2368 rights reserved.",
2369                 "title": "Binary Switch",
2370                 "definitions": {
2371                   "oic.r.switch.binary": {
2372                     "type": "object",
2373                     "properties": {
2374                       "value": {
2375                         "type": "boolean",
2376                         "description": "Status of the switch"
2377                       }
2378                     }
2379                   }
2380                 }
2381             }

```

```

2380         },
2381         "type": "object",
2382         "allOf": [
2383             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2384             {"$ref": "#/definitions/oic.r.switch.binary"}
2385         ],
2386         "required": [ "value" ]
2387     }
2388
2389     example: /
2390     {
2391         "rt":      ["oic.r.switch.binary"],
2392         "id":      "unique_example_id",
2393         "value":   false
2394     }
2395
2396     post:
2397     body:
2398     application/json:
2399     schema: /
2400     {
2401         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2402         "$schema": "http://json-schema.org/draft-04/schema#",
2403         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2404 reserved.",
2405         "title": "Binary Switch",
2406         "definitions": {
2407             "oic.r.switch.binary": {
2408                 "type": "object",
2409                 "properties": {
2410                     "value": {
2411                         "type": "boolean",
2412                         "description": "Status of the switch"
2413                     }
2414                 }
2415             }
2416         },
2417         "type": "object",
2418         "allOf": [
2419             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2420             {"$ref": "#/definitions/oic.r.switch.binary"}
2421         ],
2422         "required": [ "value" ]
2423     }
2424
2425     example: /
2426     {
2427         "id":      "unique_example_id",
2428         "value":   true
2429     }
2430
2431     responses :
2432     200:
2433     body:
2434     application/json:
2435     schema: /
2436     {
2437         "id":
2438 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2439         "$schema": "http://json-schema.org/draft-04/schema#",
2440         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2441 rights reserved.",
2442         "title": "Binary Switch",
2443         "definitions": {

```

```

2444         "oic.r.switch.binary": {
2445             "type": "object",
2446             "properties": {
2447                 "value": {
2448                     "type": "boolean",
2449                     "description": "Status of the switch"
2450                 }
2451             }
2452         },
2453     },
2454     "type": "object",
2455     "allOf": [
2456         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2457         { "$ref": "#/definitions/oic.r.switch.binary" }
2458     ],
2459     "required": [ "value" ]
2460 }
2461
2462 example: /
2463 {
2464     "id": "unique_example_id",
2465     "value": true
2466 }
2467

```

2468 6.4.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes		Status of the switch

2469 6.4.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BinarySwitchResURI		get	post		

2470 6.5 Brightness

2471 6.5.1 Introduction

2472 This resource describes the brightness of a light or lamp. brightness is an integer showing the
 2473 current brightness level as a quantized representation in the range 0-100. A brightness of 0 is the
 2474 minimum for the resource. A brightness of 100 is the maximum for the resource.

2475 6.5.2 Example URI

2476 /BrightnessResURI

2477 6.5.3 Resource Type

2478 The resource type (rt) is defined as: oic.r.light.brightness.

2479 6.5.4 RAML Definition

```

2480 #%RAML 0.8
2481 title: OICBrightness
2482 version: v1.1.0-20160519
2483 traits:
2484   - interface :
2485       queryParameters:
2486         if:
2487           enum: ["oic.if.a", "oic.if.baseline"]
2488
2489 /BrightnessResURI:
2490   description: |
2491     This resource describes the brightness of a light or lamp.
2492     brightness is an integer showing the current brightness level as a quantized representation in

```



```

2493 the range 0-100.
2494     A brightness of 0 is the minimum for the resource.
2495     A brightness of 100 is the maximum for the resource.
2496
2497 is : ['interface']
2498
2499 get:
2500     description: |
2501         Retrieves the current brightness level.
2502
2503 responses :
2504     200:
2505         body:
2506             application/json:
2507                 schema: /
2508                     {
2509                         "id":
2510 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
2511                         "$schema": "http://json-schema.org/draft-04/schema#",
2512                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
2513                         "title": "Brightness",
2514                         "definitions": {
2515                             "oic.r.light.brightness": {
2516                                 "type": "object",
2517                                 "properties": {
2518                                     "brightness": {
2519                                         "type": "integer",
2520                                         "description": "Quantized representation in the range 0-100 of the current
2521 sensed or set value for Brightness",
2522                                         "minimum": 0,
2523                                         "maximum": 100
2524                                     }
2525                                 }
2526                             },
2527                         },
2528                         "type": "object",
2529                         "allOf": [
2530                             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2531                             { "$ref": "#/definitions/oic.r.light.brightness" }
2532                         ],
2533                         "required": [ "brightness" ]
2534                     }
2535
2536     example: /
2537         {
2538             "rt":          ["oic.r.light.brightness"],
2539             "id":          "unique_example_id",
2540             "brightness": 50
2541         }
2542
2543 post:
2544     description: |
2545         Sets the desired brightness level.
2546
2547     body:
2548         application/json:
2549             schema: /
2550                 {
2551                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
2552                     "$schema": "http://json-schema.org/draft-04/schema#",
2553                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2554 reserved.",
2555                     "title": "Brightness",

```

```

2556         "definitions": {
2557             "oic.r.light.brightness": {
2558                 "type": "object",
2559                 "properties": {
2560                     "brightness": {
2561                         "type": "integer",
2562                         "description": "Quantized representation in the range 0-100 of the current
2563 sensed or set value for Brightness",
2564                         "minimum": 0,
2565                         "maximum": 100
2566                     }
2567                 }
2568             },
2569         },
2570         "type": "object",
2571         "allOf": [
2572             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2573             { "$ref": "#/definitions/oic.r.light.brightness" }
2574         ],
2575         "required": [ "brightness" ]
2576     }
2577
2578     example: /
2579         {
2580             "id": "unique_example_id",
2581             "brightness": 10
2582         }
2583
2584     responses :
2585         200:
2586             description: |
2587                 Indicates that the brightness was changed.
2588                 The new brightness level is provided in the response.
2589
2590         body:
2591             application/json:
2592                 schema: /
2593                     {
2594                         "id":
2595 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
2596                         "$schema": "http://json-schema.org/draft-04/schema#",
2597                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2598 rights reserved.",
2599                         "title": "Brightness",
2600                         "definitions": {
2601                             "oic.r.light.brightness": {
2602                                 "type": "object",
2603                                 "properties": {
2604                                     "brightness": {
2605                                         "type": "integer",
2606                                         "description": "Quantized representation in the range 0-100 of the current
2607 sensed or set value for Brightness",
2608                                         "minimum": 0,
2609                                         "maximum": 100
2610                                     }
2611                                 }
2612                             },
2613                         },
2614                         "type": "object",
2615                         "allOf": [
2616                             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2617                             { "$ref": "#/definitions/oic.r.light.brightness" }
2618                         ],
2619                         "required": [ "brightness" ]
2620                     }
2621

```

```

2622     example: /
2623         {
2624             "id":          "unique_example_id",
2625             "brightness": 10
2626         }
2627

```

2628 6.5.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
brightness	integer	yes		Quantized representation in the range 0-100 of the current sensed or set value for Brightness

2629 6.5.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BrightnessResURI		get	post		

2630 6.6 ColourChromaResURI

2631 6.6.1 Introduction

2632 6.6.2 Example URI

2633 6.6.3 Resource Type

2634 6.6.4 RAML Definition

```

2635 #%RAML 0.8
2636 title: OICColourChroma
2637 version: v1.1.0-20160519
2638 traits:
2639   - interface :
2640       queryParameters:
2641           if:
2642               enum: ["oic.if.a", "oic.if.baseline"]

```

2643

2644 6.6.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

2645 6.6.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

2646 6.7 Colour RGB

2647 6.7.1 Introduction

2648 This resource specifies the actual colour in the RGB space represented as an array of integers.
 2649 Each colour value is described with a Red, Green, Blue component. These colour values are
 2650 encoded as an array of integer values ([R,G,B]). The minimum and maximum colour value per
 2651 component may be described by range (from oic.r.baseresource). When range (from
 2652 oic.r.baseresource) is omitted, then the range is [0,255].

2653 6.7.2 Example URI

2654 /ColourRGBResURI

2655 6.7.3 Resource Type

2656 The resource type (rt) is defined as: oic.r.colour.rgb.

2657 6.7.4 RAML Definition

```
2658 #%RAML 0.8
2659 title: OICColourRGB
2660 version: v1.1.0-20160519
2661 traits:
2662   - interface :
2663     queryParameters:
2664       if:
2665         enum: ["oic.if.a", "oic.if.baseline"]
2666
2667 /ColourRGBResURI:
2668   description: |
2669     This resource specifies the actual colour in the RGB space represented as an array of integers.
2670     Each colour value is described with a Red, Green, Blue component.
2671     These colour values are encoded as an array of integer values ([R,G,B]).
2672     The minimum and maximum colour value per component may be described by range (from
2673     oic.r.baseresource).
2674     When range (from oic.r.baseresource) is omitted, then the range is [0,255].
2675
2676   is : ['interface']
2677   get:
2678     description: |
2679       Retrieves the current colour in RGB.
2680       Value is an array of integer values in the order R,G,B.
2681
2682   responses :
2683     200:
2684       body:
2685         application/json:
2686           schema: /
2687             {
2688               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2689               "$schema": "http://json-schema.org/draft-04/schema#",
2690               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2691 rights reserved.",
2692               "title": "Colour RGB",
2693               "definitions": {
2694                 "oic.r.colour.rgb": {
2695                   "type": "object",
2696                   "properties": {
2697                     "rgbValue": {
2698                       "type": "array",
2699                       "description": "RGB value; the first item is the R, second the G, third the
2700 B.",
2701                       "minItems": 3,
2702                       "maxItems": 3,
2703                       "items": {
2704                         "type": "integer"
2705                       }
2706                     }
2707                   }
2708                 },
2709               },
2710               "type": "object",
2711               "allOf": [
2712                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2713                 {"$ref": "#/definitions/oic.r.colour.rgb"}
2714               ],
2715               "required": ["rgbValue"]
2716             }
2717
2718   example: /
```

```

2719         {
2720             "rt":          ["oic.r.colour.rgb"],
2721             "id":          "unique_example_id",
2722             "rgbValue":   [255,255,255],
2723             "range":      [0,255]
2724         }
2725
2726     post:
2727         description: |
2728             Sets the current colourRGB value
2729
2730     body:
2731         application/json:
2732             schema: /
2733                 {
2734                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2735                     "$schema": "http://json-schema.org/draft-04/schema#",
2736                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2737 reserved.",
2738                     "title": "Colour RGB",
2739                     "definitions": {
2740                         "oic.r.colour.rgb": {
2741                             "type": "object",
2742                             "properties": {
2743                                 "rgbValue": {
2744                                     "type": "array",
2745                                     "description": "RGB value; the first item is the R, second the G, third the
2746 B.",
2747                                     "minItems": 3,
2748                                     "maxItems": 3,
2749                                     "items": {
2750                                         "type": "integer"
2751                                     }
2752                                 }
2753                             }
2754                         }
2755                     },
2756                     "type": "object",
2757                     "allOf": [
2758                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2759                         { "$ref": "#/definitions/oic.r.colour.rgb" }
2760                     ],
2761                     "required": ["rgbValue"]
2762                 }
2763
2764             example: /
2765                 {
2766                     "id":          "unique_example_id",
2767                     "rgbValue":   [255,0,0]
2768                 }
2769
2770     responses :
2771         200:
2772             body:
2773                 application/json:
2774                     schema: /
2775                         {
2776                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2777                             "$schema": "http://json-schema.org/draft-04/schema#",
2778                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2779 rights reserved.",
2780                             "title": "Colour RGB",
2781                             "definitions": {
2782                                 "oic.r.colour.rgb": {

```

```

2783         "type": "object",
2784         "properties": {
2785             "rgbValue": {
2786                 "type": "array",
2787                 "description": "RGB value; the first item is the R, second the G, third the
B.",
2788                 "minItems": 3,
2789                 "maxItems": 3,
2790                 "items": {
2791                     "type": "integer"
2792                 }
2793             }
2794         }
2795     },
2796     },
2797     },
2798     "type": "object",
2799     "allOf": [
2800         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2801         {"$ref": "#/definitions/oic.r.colour.rgb"}
2802     ],
2803     "required": ["rgbValue"]
2804 }
2805
2806 example: /
2807 {
2808     "id": "unique_example_id",
2809     "rgbValue": [255,0,0]
2810 }
2811

```

2812 6.7.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rgbValue	array: see schema	yes		RGB value; the first item is the R, second the G, third the B.

2813 6.7.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ColourRGBResURI		get	post		

2814 6.8 Dimming

2815 6.8.1 Introduction

2816 This resource describes a dimming function. The value is an integer showing the current dimming
2817 level. If step (from oic.r.baseresource) is present then it represents the increment between dimmer
2818 values. When range (from oic.r.baseresource) is omitted, then the range is [0,100]. A value of 0
2819 means total dimming; a value of 100 means no dimming.

2820 6.8.2 Example URI

2821 /DimmingResURI

2822 6.8.3 Resource Type

2823 The resource type (rt) is defined as: oic.r.light.dimming.

2824 6.8.4 RAML Definition

```

2825 #%RAML 0.8
2826 title: OICDimming
2827 version: v1.1.0-20160519
2828 traits:
2829   - interface :
2830       queryParameters:

```

```

2831     if:
2832         enum: ["oic.if.a", "oic.if.baseline"]
2833
2834 /DimmingResURI:
2835     description: |
2836         This resource describes a dimming function.
2837         The value is an integer showing the current dimming level.
2838         If step (from oic.r.baseresource) is present then it represents the increment between dimmer
2839         values.
2840         When range (from oic.r.baseresource) is omitted, then the range is [0,100].
2841         A value of 0 means total dimming; a value of 100 means no dimming.
2842
2843     is : ['interface']
2844     get:
2845         description: |
2846             Retrieves the current dimming level.
2847
2848         responses :
2849             200:
2850                 body:
2851                     application/json:
2852                         schema: /
2853                             {
2854                                 "id":
2855 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2856                                 "$schema": "http://json-schema.org/draft-04/schema#",
2857                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2858             rights reserved.",
2859                                 "title": "Dimming",
2860                                 "definitions": {
2861                                     "oic.r.light.dimming": {
2862                                         "type": "object",
2863                                         "properties": {
2864                                             "dimmingSetting": {
2865                                                 "type": "integer",
2866                                                 "description": "Current dimming value"
2867                                             }
2868                                         }
2869                                     }
2870                                 },
2871                                 "type": "object",
2872                                 "allOf": [
2873                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2874                                     {"$ref": "#/definitions/oic.r.light.dimming"}
2875                                 ],
2876                                 "required": ["dimmingSetting"]
2877                             }
2878
2879         example: /
2880             {
2881                 "rt":          ["oic.r.light.dimming"],
2882                 "id":          "unique_example_id",
2883                 "dimmingSetting": 30,
2884                 "step":        5,
2885                 "range":       [0,100]
2886             }
2887
2888     post:
2889         description: |
2890             Sets the desired dimming level.
2891
2892         body:

```

```

2893     application/json:
2894         schema: /
2895             {
2896                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2897                 "$schema": "http://json-schema.org/draft-04/schema#",
2898                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2899 reserved.",
2900                 "title": "Dimming",
2901                 "definitions": {
2902                     "oic.r.light.dimming": {
2903                         "type": "object",
2904                         "properties": {
2905                             "dimmingSetting": {
2906                                 "type": "integer",
2907                                 "description": "Current dimming value"
2908                             }
2909                         }
2910                     }
2911                 },
2912                 "type": "object",
2913                 "allOf": [
2914                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2915                     {"$ref": "#/definitions/oic.r.light.dimming"}
2916                 ],
2917                 "required": ["dimmingSetting"]
2918             }
2919
2920         example: /
2921             {
2922                 "id": "unique_example_id",
2923                 "dimmingSetting": 40
2924             }
2925
2926     responses :
2927         200:
2928             description: |
2929                 Indicates that the dimming was changed.
2930                 The new dimming level is provided in the response.
2931
2932             body:
2933                 application/json:
2934                     schema: /
2935                         {
2936                             "id":
2937 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2938                             "$schema": "http://json-schema.org/draft-04/schema#",
2939                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2940 rights reserved.",
2941                             "title": "Dimming",
2942                             "definitions": {
2943                                 "oic.r.light.dimming": {
2944                                     "type": "object",
2945                                     "properties": {
2946                                         "dimmingSetting": {
2947                                             "type": "integer",
2948                                             "description": "Current dimming value"
2949                                         }
2950                                     }
2951                                 }
2952                             },
2953                             "type": "object",
2954                             "allOf": [
2955                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2956                                 {"$ref": "#/definitions/oic.r.light.dimming"}
2957                             ],

```



```

2958         "required": ["dimmingSetting"]
2959     }
2960
2961     example: /
2962     {
2963         "id":             "unique_example_id",
2964         "dimmingSetting": 40
2965     }
2966
2967     403:
2968     description: |
2969         This response is generated by the OIC Server when the client sends:
2970         An update with an out of range property value for dimmingSetting.
2971         The server responds with the current resource representation.
2972
2973     body:
2974     application/json:
2975     schema: /
2976     {
2977         "id":
2978     "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2979         "$schema": "http://json-schema.org/draft-04/schema#",
2980         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2981 rights reserved.",
2982         "title": "Dimming",
2983         "definitions": {
2984             "oic.r.light.dimming": {
2985                 "type": "object",
2986                 "properties": {
2987                     "dimmingSetting": {
2988                         "type": "integer",
2989                         "description": "Current dimming value"
2990                     }
2991                 }
2992             }
2993         },
2994         "type": "object",
2995         "allOf": [
2996             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2997             {"$ref": "#/definitions/oic.r.light.dimming"}
2998         ],
2999         "required": ["dimmingSetting"]
3000     }
3001
3002     example: /
3003     {
3004         "id":             "unique_example_id",
3005         "dimmingSetting": 40
3006     }
3007

```

3008 6.8.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
dimmingSetting	integer	yes		Current dimming value

3009 6.8.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/DimmingResURI		get	post		

3010 6.9 Door

3011 6.9.1 Introduction

3012 This resource describes the open state of the door. A door is modelled by means of openState
3013 (Open/Closed), openDuration (ISO 8601 Time), and openAlarm (boolean). For openState, the
3014 value 'Open' indicates the door is open. The value 'Closed' indicates the door is closed. The type
3015 of openDuration is an ISO 8601 Time encoded string. The openAlarm value 'true' indicates that
3016 the open alarm is active. The openAlarm value 'false' indicates that open alarm is not active.

3017 6.9.2 Example URI

3018 /DoorResURI

3019 6.9.3 Resource Type

3020 The resource type (rt) is defined as: oic.r.door.

3021 6.9.4 RAML Definition

```
3022 #%RAML 0.8
3023 title: OICDoor
3024 version: v1.1.0-20160519
3025 traits:
3026   - interface-actuator :
3027     queryParameters:
3028       if:
3029         enum: ["oic.if.a", "oic.if.baseline"]
3030   - interface-all :
3031     queryParameters:
3032       if:
3033         enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]
3034
3035 /DoorResURI:
3036   description: |
3037     This resource describes the open state of the door.
3038     A door is modelled by means of openState (Open/Closed), openDuration (ISO 8601 Time), and
3039     openAlarm (boolean).
3040     For openState, the value 'Open' indicates the door is open.
3041     The value 'Closed' indicates the door is closed.
3042     The type of openDuration is an ISO 8601 Time encoded string.
3043     The openAlarm value 'true' indicates that the open alarm is active.
3044     The openAlarm value 'false' indicates that open alarm is not active.
3045
3046   get:
3047     description: |
3048       retrieves the state of the Door.
3049
3050   is : ['interface-all']
3051   responses :
3052     200:
3053       body:
3054         application/json:
3055           schema: /
3056             {
3057               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door.json#",
3058               "$schema": "http://json-schema.org/draft-04/schema#",
3059               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3060 rights reserved.",
3061               "title": "Door",
3062               "definitions": {
3063                 "oic.r.door": {
```

```

3064         "type": "object",
3065         "properties": {
3066             "openState": {
3067                 "enum": ["Open", "Closed"],
3068                 "readOnly": true,
3069                 "description": "The state of the door (open or closed)"
3070             },
3071             "openDuration": {
3072                 "type": "string",
3073                 "readOnly": true,
3074                 "description": "The time duration the door has been open"
3075             },
3076             "openAlarm": {
3077                 "type": "boolean",
3078                 "description": "The state of the door open alarm"
3079             }
3080         }
3081     },
3082 },
3083     "type": "object",
3084     "allOf": [
3085         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3086         {"$ref": "#/definitions/oic.r.door"}
3087     ],
3088     "required": ["openState"]
3089 }
3090
3091 example: /
3092 {
3093     "rt" :           ["oic.r.door"],
3094     "id":           "unique_example_id",
3095     "openState":    "Open",
3096     "openDuration": "P0Y0M0DT2H25M5S",
3097     "openAlarm":    true
3098 }
3099
3100 post:
3101 description: |
3102     Sets the current Door properties.
3103     The only property that can be set as part of an update operation is
3104     the openAlarm.
3105     This can be made active (true) or inactive (false)
3106
3107 is : ['interface-actuator']
3108 body:
3109     application/json:
3110         schema: /
3111             {
3112                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door-Update.json#",
3113                 "$schema": "http://json-schema.org/draft-04/schema#",
3114                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3115 reserved.",
3116                 "title": "Door",
3117                 "definitions": {
3118                     "oic.r.door": {
3119                         "type": "object",
3120                         "properties": {
3121                             "openAlarm": {
3122                                 "type": "boolean",
3123                                 "description": "The state of the door open alarm"
3124                             }
3125                         }
3126                     }
3127                 },
3128                 "type": "object",
3129                 "allOf": [
3130                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},

```

```

3131         {"$ref": "#/definitions/oic.r.door"}
3132     ]
3133 }
3134
3135 example: /
3136 {
3137     "id":         "unique_example_id",
3138     "openAlarm": false
3139 }
3140
3141 responses :
3142 200:
3143   body:
3144     application/json:
3145       schema: /
3146         {
3147           "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door-Update.json#",
3148           "$schema": "http://json-schema.org/draft-04/schema#",
3149           "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3150 rights reserved.",
3151           "title": "Door",
3152           "definitions": {
3153             "oic.r.door": {
3154               "type": "object",
3155               "properties": {
3156                 "openAlarm": {
3157                   "type": "boolean",
3158                   "description": "The state of the door open alarm"
3159                 }
3160             }
3161           },
3162           "type": "object",
3163           "allOf": [
3164             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3165             {"$ref": "#/definitions/oic.r.door"}
3166           ]
3167         }
3168       }
3169
3170 example: /
3171 {
3172     "id":         "unique_example_id",
3173     "openAlarm": false
3174 }
3175
3176

```

6.9.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
openDuration	string		Read Only	The time duration the door has been open
openAlarm	boolean			The state of the door open alarm
openState	multiple types: see schema	yes	Read Only	The state of the door (open or closed)

6.9.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/DoorResURI		get	post		

3178 6.10 Energy Consumption

3179 6.10.1 Introduction

3180 This resource describes the energy consumed by the device since power up (the energy value is
3181 in Watt Hours [Wh]) and the instantaneous power draw of the device (the power value is in Watts
3182 [W]) at the time the resource was queried. The power value is in Watts [W]. The energy value is in
3183 Watt Hours [Wh].

3184 6.10.2 Example URI

3185 /EnergyConsumptionResURI

3186 6.10.3 Resource Type

3187 The resource type (rt) is defined as: oic.r.energy.consumption.

3188 6.10.4 RAML Definition

3189 `##RAML 0.8`

3190 `title: OICEnergyConsumption`
3191 `version: v1.1.0-20160519`

3192 `traits:`

3193 `- interface :`

3194 `queryParameters:`

3195 `if:`

3196 `enum: ["oic.if.s", "oic.if.baseline"]`

3197

3198 `/EnergyConsumptionResURI:`

3199 `description: |`

3200 `This resource describes the energy consumed by the device since power up (the energy value is`
3201 `in Watt Hours [Wh])`
3202 `and the instantaneous power draw of the device (the power value is in Watts [W]) at the time`
3203 `the resource was queried.`

3204 `The power value is in Watts [W].`

3205 `The energy value is in Watt Hours [Wh].`

3206

3207 `is : ['interface']`

3208 `get:`

3209 `description: |`

3210 `Provides the current power draw and cumulative energy usage.`

3211

3212 `responses :`

3213 `200:`

3214 `body:`

3215 `application/json:`

3216 `schema: |`

3217 `{`

3218 `"id":`

3219 `"http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.consumption.json#",`

3220 `"$schema": "http://json-schema.org/draft-04/schema#",`

3221 `"description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`
3222 `rights reserved.",`

3223 `"title": "Energy Consumption",`

3224 `"definitions": {`

3225 `"oic.r.energy.consumption": {`

3226 `"type": "object",`

3227 `"properties": {`

3228 `"power": {`

3229 `"type": "number",`

3230 `"readOnly": true,`

3231 `"description": "Instantaneous Power"`

3232 `},`

3233 `"energy": {`

```

3234         "type": "number",
3235         "readOnly": true,
3236         "description": "Energy consumed"}
3237     }
3238 }
3239 },
3240 "type": "object",
3241 "allOf": [
3242     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3243     {"$ref": "#/definitions/oic.r.energy.consumption"}
3244 ],
3245 "required": ["power", "energy"]
3246 }
3247
3248 example: /
3249 {
3250     "rt":      ["oic.r.energy.consumption"],
3251     "id":      "unique_example_id",
3252     "power":   2000.1,
3253     "energy":  3500.4
3254 }
3255

```

3256 6.10.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
energy	number	yes	Read Only	Energy consumed
power	number	yes	Read Only	Instantaneous Power

3257 6.10.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyConsumptionResURI		get			

3258 6.11 Energy Usage

3259 6.11.1 Introduction

3260 This resource describes a cumulative time-based energy usage query.. The resource is a
3261 composite resource being made up as a collection of: TimePeriod Resource EnergyConsumption
3262 Resource

3263 6.11.2 Example URI

3264 /EnergyUsageResURI

3265 6.11.3 Resource Type

3266 The resource type (rt) is defined as: oic.r.energy.usage.

3267 6.11.4 RAML Definition

```

3268 #%RAML 0.8
3269 title: OICEnergyUsage
3270 version: v1.1.0-20160519
3271 traits:
3272   - interface :
3273     queryParameters:
3274       if:
3275         enum: ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
3276
3277 /EnergyUsageResURI:
3278   description: |
3279     This resource describes a cumulative time-based energy usage query..
3280     The resource is a composite resource being made up as a collection of:

```

```

3281     TimePeriod Resource
3282     EnergyConsumption Resource
3283
3284     is : ['interface']
3285     get:
3286         description: |
3287             Retrieves the energy usage information as a composite of consumption over time.
3288
3289     responses :
3290         200:
3291             body:
3292                 application/json:
3293                     schema: /
3294                         {
3295                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.usage.json#",
3296                             "$schema": "http://json-schema.org/draft-04/schema#",
3297                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3298 rights reserved.",
3299                             "title": "Energy Usage",
3300                             "definitions": {
3301                                 "oic.r.energy.usage": {
3302                                     "type": "object",
3303                                     "properties": {
3304                                         "resources": {
3305                                             "type": "array",
3306                                             "minItems": 2,
3307                                             "maxItems": 2,
3308                                             "items": {
3309                                                 "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
3310                                             }
3311                                         }
3312                                     }
3313                                 },
3314                             },
3315                             "type": "object",
3316                             "allOf": [
3317                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3318                                 {"$ref": "#/definitions/oic.r.energy.usage"}
3319                             ],
3320                             "required": ["resources"]
3321                         }
3322
3323     example: /
3324         {
3325             "rt": ["oic.r.energy.usage"],
3326             "id": "unique_example_id",
3327             "resources": [
3328                 {
3329                     "href": "/TimeIntervalResURI",
3330                     "rel": "contains",
3331                     "rt": ["oic.r.time.period"],
3332                     "if": ["oic.if.a"],
3333                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
3334                 },
3335                 {
3336                     "href": "/EnergyConsumptionResURI",
3337                     "rel": "contains",
3338                     "rt": ["oic.r.energy.consumption"],
3339                     "if": ["oic.if.s"],
3340                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
3341                 }
3342             ]
3343         }
3344

```

3345 **6.11.5 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EnergyUsageResURI		get			

3346 **6.12 Humidity**

3347 **6.12.1 Introduction**

3348 This resource describes a sensed or desired humidity. The value humidity is an integer describing
 3349 the percentage measured relative humidity. The value desiredHumidity is an integer showing the
 3350 desired target relative humidity.

3351 **6.12.2 Example URI**

3352 /HumidityResURI

3353 **6.12.3 Resource Type**

3354 The resource type (rt) is defined as: oic.r.humidity.

3355 **6.12.4 RAML Definition**

```

3356 #%RAML 0.8
3357 title: OICHumidity
3358 version: v1.1.0-20160519
3359 traits:
3360   - interface :
3361       queryParams:
3362           if:
3363               enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]
3364
3365 /HumidityResURI:
3366   description: |
3367     This resource describes a sensed or desired humidity.
3368     The value humidity is an integer describing the percentage measured relative humidity.
3369     The value desiredHumidity is an integer showing the desired target relative humidity.
3370
3371   is : ['interface']
3372   get:
3373     description: |
3374       Retrieves the current (relative) humidity level.
3375
3376   responses :
3377     200:
3378       body:
3379         application/json:
3380           schema: /
3381             {
3382               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity.json#",
3383               "$schema": "http://json-schema.org/draft-04/schema#",
3384               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3385 rights reserved.",
3386               "title": "Humidity",
3387               "definitions": {
3388                 "oic.r.humidity": {
3389                   "type": "object",
3390                   "properties": {
3391                     "humidity": {
3392                       "type": "integer",
3393                       "readOnly": true,
3394                       "description": "Current sensed value for Humidity",
3395                       "minimum": 0,
3396                       "maximum": 100

```



```

3397         },
3398         "desiredHumidity": {
3399             "type": "integer",
3400             "description": "Desired value for Humidity",
3401             "minimum": 0,
3402             "maximum": 100
3403         }
3404     }
3405 },
3406 },
3407 "type": "object",
3408 "allOf": [
3409     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3410     {"$ref": "#/definitions/oic.r.humidity"}
3411 ],
3412 "required": ["humidity"]
3413 }
3414
3415 example: /
3416 {
3417     "rt": ["oic.r.humidity"],
3418     "id": "unique_example_id",
3419     "humidity": 40,
3420     "desiredHumidity": 40
3421 }
3422
3423 post:
3424 description: |
3425     Sets the desired relative humidity level.
3426
3427 body:
3428     application/json:
3429         schema: /
3430             {
3431                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity-Update.json#",
3432                 "$schema": "http://json-schema.org/draft-04/schema#",
3433                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3434 reserved.",
3435                 "title": "Humidity",
3436                 "definitions": {
3437                     "oic.r.humidity": {
3438                         "type": "object",
3439                         "properties": {
3440                             "desiredHumidity": {
3441                                 "type": "integer",
3442                                 "description": "Desired value for Humidity",
3443                                 "minimum": 0,
3444                                 "maximum": 100
3445                             }
3446                         }
3447                     }
3448                 },
3449                 "type": "object",
3450                 "allOf": [
3451                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3452                     {"$ref": "#/definitions/oic.r.humidity"}
3453                 ]
3454             }
3455
3456 example: /
3457 {
3458     "id": "unique_example_id",
3459     "desiredHumidity": 45
3460 }
3461

```

```

3462     responses :
3463         200:
3464             description: |
3465                 Indicates that the relative humidity level was changed.
3466                 The new relative humidity level is provided in the response.
3467
3468             body:
3469                 application/json:
3470                     schema: /
3471                         {
3472                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity-
3473 Update.json#",
3474                             "$schema": "http://json-schema.org/draft-04/schema#",
3475                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3476 rights reserved.",
3477                             "title": "Humidity",
3478                             "definitions": {
3479                                 "oic.r.humidity": {
3480                                     "type": "object",
3481                                     "properties": {
3482                                         "desiredHumidity": {
3483                                             "type": "integer",
3484                                             "description": "Desired value for Humidity",
3485                                             "minimum": 0,
3486                                             "maximum": 100
3487                                         }
3488                                     }
3489                                 }
3490                             },
3491                             "type": "object",
3492                             "allOf": [
3493                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3494                                 {"$ref": "#/definitions/oic.r.humidity"}
3495                             ]
3496                         }
3497
3498                     example: /
3499                         {
3500                             "id": "unique_example_id",
3501                             "desiredHumidity": 45
3502                         }
3503

```

3504 6.12.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
desiredHumidity	integer			Desired value for Humidity
humidity	integer	yes	Read Only	Current sensed value for Humidity

3505 6.12.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/HumidityResURI		get	post		

3506 6.13 Ice Maker

3507 6.13.1 Introduction

3508 This resource describes an the operational state of an Ice Maker. The status is a string containing
3509 a value from the set of possible ice maker statuses. The possible statuses are defined by the
3510 enumeration [on, off, full] A status of 'on' means that the Ice Maker is operating. A status of 'off'

3511 means that the Ice Maker is not operating. A status of 'full' means that the ice collection bin is full
3512 (Ice Maker is operating).

3513 6.13.2 Example URI

3514 /IceMakerResURI

3515 6.13.3 Resource Type

3516 The resource type (rt) is defined as: oic.r.icemaker.

3517 6.13.4 RAML Definition

```
3518 #%RAML 0.8
3519 title: OICIceMaker
3520 version: v1.1.0-20160519
3521 traits:
3522   - interface :
3523     queryParameters:
3524       if:
3525         enum: ["oic.if.a", "oic.if.baseline"]
3526
3527 /IceMakerResURI:
3528   description: |
3529     This resource describes an the operational state of an Ice Maker.
3530     The status is a string containing a value from the set of possible ice maker statuses.
3531     The possible statuses are defined by the enumeration [on, off, full]
3532     A status of 'on' means that the Ice Maker is operating.
3533     A status of 'off' means that the Ice Maker is not operating.
3534     A status of 'full' means that the ice collection bin is full (Ice Maker is operating).
3535
3536   is : ['interface']
3537   get:
3538     description: |
3539       Retrieves the current Ice Maker status.
3540
3541     responses :
3542       200:
3543         body:
3544           application/json:
3545             schema: /
3546               {
3547                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker.json#",
3548                 "$schema": "http://json-schema.org/draft-04/schema#",
3549                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3550 rights reserved.",
3551                 "title": "Ice Maker",
3552                 "definitions": {
3553                   "oic.r.iceMaker": {
3554                     "type": "object",
3555                     "properties": {
3556                       "status": {
3557                         "enum": ["on","off","full"],
3558                         "description": "Status of the Ice Maker"
3559                       }
3560                     }
3561                   },
3562                 },
3563                 "type": "object",
3564                 "allOf": [
3565                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3566                   {"$ref": "#/definitions/oic.r.iceMaker"}
3567                 ],
3568                 "required": ["status"]
```

```

3569         }
3570
3571     example: /
3572     {
3573         "rt":      ["oic.r.icemaker"],
3574         "id":      "unique_example_id",
3575         "status":  "on"
3576     }
3577
3578     post:
3579     description: |
3580         Sets the desired Ice Maker status.
3581         Only valid settings for status in a Post shall be [on,off].
3582
3583     body:
3584     application/json:
3585     schema: /
3586     {
3587         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-Update.json#",
3588         "$schema": "http://json-schema.org/draft-04/schema#",
3589         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3590 reserved.",
3591         "title": "Ice Maker",
3592         "definitions": {
3593             "oic.r.icemaker": {
3594                 "type": "object",
3595                 "properties": {
3596                     "status": {
3597                         "enum": ["on","off"],
3598                         "description": "Set the status of the Ice Maker"
3599                     }
3600                 }
3601             },
3602             "type": "object",
3603             "allOf": [
3604                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3605                 {"$ref": "#/definitions/oic.r.icemaker"}
3606             ],
3607             "required": ["status"]
3608         }
3609     }
3610
3611     example: /
3612     {
3613         "id":      "unique_example_id",
3614         "status":  "off"
3615     }
3616
3617     responses :
3618     200:
3619     description: |
3620         Indicates that the Ice Maker status was changed.
3621         The new status is provided in the response.
3622
3623     body:
3624     application/json:
3625     schema: /
3626     {
3627         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-
3628 Update.json#",
3629         "$schema": "http://json-schema.org/draft-04/schema#",
3630         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3631 rights reserved.",

```

```

3632         "title": "Ice Maker",
3633         "definitions": {
3634             "oic.r.icemaker": {
3635                 "type": "object",
3636                 "properties": {
3637                     "status": {
3638                         "enum": ["on","off"],
3639                         "description": "Set the status of the Ice Maker"
3640                     }
3641                 }
3642             }
3643         },
3644         "type": "object",
3645         "allOf": [
3646             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3647             {"$ref": "#/definitions/oic.r.icemaker"}
3648         ],
3649         "required": ["status"]
3650     }
3651
3652     example: /
3653     {
3654         "id":         "unique_example_id",
3655         "status": "off"
3656     }
3657
3658     403:
3659     description: |
3660         This response is generated by the OIC Server when the client sends:
3661         An update with an invalid property value for status.
3662         The server responds with the current resource representation.
3663
3664     body:
3665     application/json:
3666     schema: /
3667     {
3668         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-
3669 Update.json#",
3670         "$schema": "http://json-schema.org/draft-04/schema#",
3671         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3672 rights reserved.",
3673         "title": "Ice Maker",
3674         "definitions": {
3675             "oic.r.icemaker": {
3676                 "type": "object",
3677                 "properties": {
3678                     "status": {
3679                         "enum": ["on","off"],
3680                         "description": "Set the status of the Ice Maker"
3681                     }
3682                 }
3683             }
3684         },
3685         "type": "object",
3686         "allOf": [
3687             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3688             {"$ref": "#/definitions/oic.r.icemaker"}
3689         ],
3690         "required": ["status"]
3691     }
3692
3693     example: /
3694     {
3695         "id":         "unique_example_id",
3696         "status": "off"

```

3697 }
3698

3699 6.13.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
status	multiple types: see schema	yes		Status of the Ice Maker

3700 6.13.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/IceMakerResURI		get	post		

3701 6.14 Lock

3702 6.14.1 Introduction

3703 Resource describing a lock. For the type of lockState, the value 'Locked' indicates that the door is
3704 Locked. The value 'Unlocked' indicates that the door is Unlocked.

3705 6.14.2 Example URI

3706 /LockStatusResURI

3707 6.14.3 Resource Type

3708 The resource type (rt) is defined as: oic.r.lock.status.

3709 6.14.4 RAML Definition

```
3710 #%RAML 0.8
3711 title: OICLock
3712 version: v1.1.0-20160519
3713 traits:
3714   - interface :
3715       queryParameters:
3716         if:
3717           enum: ["oic.if.a", "oic.if.baseline"]
3718
3719 /LockStatusResURI:
3720   description: |
3721     Resource describing a lock.
3722     For the type of lockState, the value 'Locked' indicates that the door is Locked.
3723     The value 'Unlocked' indicates that the door is Unlocked.
3724
3725   is : ['interface']
3726   get:
3727     description: |
3728       Retrieves the state of the lock.
3729
3730   responses :
3731     200:
3732       body:
3733         application/json:
3734           schema: /
3735             {
3736               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3737               "$schema": "http://json-schema.org/draft-04/schema#",
3738               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3739 rights reserved.",
3740               "title": "Lock",
3741               "definitions": {
3742                 "oic.r.lock.status": {
```

```

3743         "type": "object",
3744         "properties": {
3745             "lockState": {
3746                 "type": "string",
3747                 "enum": ["Locked", "Unlocked"],
3748                 "description": "State of the lock."
3749             }
3750         }
3751     },
3752 },
3753 "type": "object",
3754 "allOf": [
3755     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3756     {"$ref": "#/definitions/oic.r.lock.status"}
3757 ],
3758 "required": ["lockState"]
3759 }
3760
3761 example: /
3762 {
3763     "rt":          ["oic.r.lock.status"],
3764     "id":          "unique_example_id",
3765     "lockState":  "Locked"
3766 }
3767
3768 post:
3769 description: |
3770     Sets the current lock state.
3771
3772 body:
3773     application/json:
3774         schema: /
3775             {
3776                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3777                 "$schema": "http://json-schema.org/draft-04/schema#",
3778                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3779 reserved.",
3780                 "title": "Lock",
3781                 "definitions": {
3782                     "oic.r.lock.status": {
3783                         "type": "object",
3784                         "properties": {
3785                             "lockState": {
3786                                 "type": "string",
3787                                 "enum": ["Locked", "Unlocked"],
3788                                 "description": "State of the lock."
3789                             }
3790                         }
3791                     }
3792                 },
3793                 "type": "object",
3794                 "allOf": [
3795                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3796                     {"$ref": "#/definitions/oic.r.lock.status"}
3797                 ],
3798                 "required": ["lockState"]
3799             }
3800
3801 example: /
3802 {
3803     "id":          "unique_example_id",
3804     "lockState":  "Unlocked"
3805 }
3806
3807 responses :

```

```

3808     200:
3809         body:
3810             application/json:
3811                 schema: /
3812                     {
3813                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3814                         "$schema": "http://json-schema.org/draft-04/schema#",
3815                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3816 rights reserved.",
3817                         "title": "Lock",
3818                         "definitions": {
3819                             "oic.r.lock.status": {
3820                                 "type": "object",
3821                                 "properties": {
3822                                     "lockState" : {
3823                                         "type": "string",
3824                                         "enum": ["Locked", "Unlocked"],
3825                                         "description": "State of the lock."
3826                                     }
3827                                 }
3828                             },
3829                         },
3830                         "type": "object",
3831                         "allOf": [
3832                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3833                             {"$ref": "#/definitions/oic.r.lock.status"}
3834                         ],
3835                         "required": ["lockState"]
3836                     }
3837
3838                 example: /
3839                     {
3840                         "id": "unique_example_id",
3841                         "lockState": "Unlocked"
3842                     }
3843
3844     403:
3845         description: |
3846             This response is generated by the OIC Server when the client sends:
3847             An update with an invalid property value for lockState.
3848             The server responds with the current resource representation.
3849
3850         body:
3851             application/json:
3852                 schema: /
3853                     {
3854                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3855                         "$schema": "http://json-schema.org/draft-04/schema#",
3856                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3857 rights reserved.",
3858                         "title": "Lock",
3859                         "definitions": {
3860                             "oic.r.lock.status": {
3861                                 "type": "object",
3862                                 "properties": {
3863                                     "lockState" : {
3864                                         "type": "string",
3865                                         "enum": ["Locked", "Unlocked"],
3866                                         "description": "State of the lock."
3867                                     }
3868                                 }
3869                             },
3870                         },
3871                         "type": "object",
3872                         "allOf": [

```



```

3873         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3874         {"$ref": "#/definitions/oic.r.lock.status"}
3875     ],
3876     "required": ["lockState"]
3877 }
3878
3879     example: /
3880     {
3881         "lockState": "Unlocked"
3882     }
3883

```

3884 6.14.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lockState	string	yes		State of the lock.

3885 6.14.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/LockStatusResURI		get	post		

3886 6.15 Lock Code

3887 6.15.1 Introduction

3888 Resource describing a lock code. The lockCodeList is an array of possible codes that may be
3889 associated with a lock. These are all presented as strings.

3890 6.15.2 Example URI

3891 /LockCodeResURI

3892 6.15.3 Resource Type

3893 The resource type (rt) is defined as: oic.r.lock.code.

3894 6.15.4 RAML Definition

```

3895 #%RAML 0.8
3896 title: OICLockCode
3897 version: v1.1.0-20160519
3898 traits:
3899   - interface :
3900       queryParameters:
3901           if:
3902               enum: ["oic.if.a", "oic.if.baseline"]
3903
3904 /LockCodeResURI:
3905     description: |
3906         Resource describing a lock code.
3907         The lockCodeList is an array of possible codes that may be associated with a lock.
3908         These are all presented as strings.
3909
3910     is : ['interface']
3911     get:
3912         description: |
3913             Retrieves the current lock code values.
3914
3915     responses :
3916         200:
3917             body:
3918                 application/json:
3919                 schema: /

```

```

3920     {
3921         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
3922         "$schema": "http://json-schema.org/draft-04/schema#",
3923         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3924 rights reserved.",
3925         "title": "Lock Code",
3926         "definitions": {
3927             "oic.r.lock.code": {
3928                 "type": "object",
3929                 "properties": {
3930                     "lockCodeList" : {
3931                         "type": "array",
3932                         "items": {
3933                             "type": "string",
3934                             "description": "Value for the lock code"
3935                         }
3936                     }
3937                 }
3938             },
3939         },
3940         "type": "object",
3941         "allOf": [
3942             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3943             {"$ref": "#/definitions/oic.r.lock.code"}
3944         ],
3945         "required": ["lockCodeList"]
3946     }
3947
3948     example: /
3949     {
3950         "rt":          ["oic.r.lock.code"],
3951         "id":          "unique_example_id",
3952         "lockCodeList": ["012345","112233"]
3953     }
3954
3955     post:
3956     description: |
3957         Updates the current lock code values.
3958
3959     body:
3960     application/json:
3961     schema: /
3962     {
3963         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
3964         "$schema": "http://json-schema.org/draft-04/schema#",
3965         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3966 reserved.",
3967         "title": "Lock Code",
3968         "definitions": {
3969             "oic.r.lock.code": {
3970                 "type": "object",
3971                 "properties": {
3972                     "lockCodeList" : {
3973                         "type": "array",
3974                         "items": {
3975                             "type": "string",
3976                             "description": "Value for the lock code"
3977                         }
3978                     }
3979                 }
3980             },
3981         },
3982         "type": "object",
3983         "allOf": [
3984             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3985             {"$ref": "#/definitions/oic.r.lock.code"}
3986         ],

```

```

3987         "required": ["lockCodeList"]
3988     }
3989
3990     example: /
3991     {
3992         "id":          "unique_example_id",
3993         "lockCodeList": ["543210","332211"]
3994     }
3995
3996     responses :
3997         200:
3998             body:
3999                 application/json:
4000                 schema: /
4001                 {
4002                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
4003                     "$schema": "http://json-schema.org/draft-04/schema#",
4004                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
4005                     "title": "Lock Code",
4006                     "definitions": {
4007                         "oic.r.lock.code": {
4008                             "type": "object",
4009                             "properties": {
4010                                 "lockCodeList" : {
4011                                     "type": "array",
4012                                     "items": {
4013                                         "type": "string",
4014                                         "description": "Value for the lock code"
4015                                     }
4016                                 }
4017                             }
4018                         }
4019                     },
4020                     "type": "object",
4021                     "allOf": [
4022                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4023                         {"$ref": "#/definitions/oic.r.lock.code"}
4024                     ],
4025                     "required": ["lockCodeList"]
4026                 }
4027
4028
4029     example: /
4030     {
4031         "id":          "unique_example_id",
4032         "lockCodeList": ["543210","332211"]
4033     }
4034

```

4035 6.15.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lockCodeList	array: see schema	yes		

4036 6.15.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/LockCodeResURI		get	post		

4037 6.16 Mode

4038 6.16.1 Introduction

4039 This resource describes the modes of operation that a device can provide. The mode can be read
4040 or set. The supportedModes is an array of possible modes the device supports. The modes are an
4041 array of the currently active mode(s).

4042 6.16.2 Example URI

4043 /ModeResURI

4044 6.16.3 Resource Type

4045 The resource type (rt) is defined as: oic.r.mode.

4046 6.16.4 RAML Definition

4047 #%RAML 0.8

4048 title: OICMode

4049 version: v1.1.0-20160519

4050 traits:

4051 - interface :

4052 queryParameters:

4053 if:

4054 enum: ["oic.if.a", "oic.if.baseline"]

4055

4056 /ModeResURI:

4057 description: |

4058 This resource describes the modes of operation that a device can provide.

4059 The mode can be read or set.

4060 The supportedModes is an array of possible modes the device supports.

4061 The modes are an array of the currently active mode(s).

4062

4063 is : ['interface']

4064 get:

4065 description: |

4066 Retrieves the current mode.

4067

4068 responses :

4069 200:

4070 body:

4071 application/json:

4072 schema: /

4073 {
4074 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",

4075 "\$schema": "http://json-schema.org/draft-04/schema#",

4076 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4077 rights reserved.",

4078 "title": "Mode",

4079 "definitions": {

4080 "oic.r.mode": {

4081 "type": "object",

4082 "properties": {

4083 "supportedModes": {

4084 "type": "array",

4085 "readOnly": true,

4086 "description": "Array of possible modes the device supports.",

4087 "items": {

4088 "type": "string"

4089 }
4090 },

4091 "modes": {

4092 "type": "array",

```

4093         "description": "Array of the currently active mode(s)",
4094         "items": {
4095             "type": "string"
4096         }
4097     }
4098 }
4099 }
4100 },
4101 "type": "object",
4102 "allOf": [
4103     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4104     {"$ref": "#/definitions/oic.r.mode"}
4105 ],
4106 "required": ["supportedModes", "modes"]
4107 }
4108
4109 example: /
4110 {
4111     "rt":             ["oic.r.mode"],
4112     "id":             "unique_example_id",
4113     "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
4114     "modes":         ["active"]
4115 }
4116
4117 post:
4118     description: |
4119         Sets the desired mode.
4120
4121     body:
4122         application/json:
4123             schema: /
4124                 {
4125                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode-Update.json#",
4126                     "$schema": "http://json-schema.org/draft-04/schema#",
4127                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4128 reserved.",
4129                     "title": "Mode",
4130                     "definitions": {
4131                         "oic.r.mode": {
4132                             "type": "object",
4133                             "properties": {
4134                                 "modes": {
4135                                     "type": "array",
4136                                     "description": "Desired mode",
4137                                     "items": {
4138                                         "type": "string"
4139                                     }
4140                                 }
4141                             }
4142                         }
4143                     },
4144                     "type": "object",
4145                     "allOf": [
4146                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4147                         {"$ref": "#/definitions/oic.r.mode"}
4148                     ],
4149                     "required": ["modes"]
4150                 }
4151
4152             example: /
4153                 {
4154                     "id": "unique_example_id",
4155                     "modes": ["armedAway"]
4156                 }
4157

```

```

4158     responses :
4159         200:
4160             body:
4161                 application/json:
4162                     schema: /
4163                         {
4164                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode-Update.json#",
4165                             "$schema": "http://json-schema.org/draft-04/schema#",
4166                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4167 rights reserved.",
4168                             "title": "Mode",
4169                             "definitions": {
4170                                 "oic.r.mode": {
4171                                     "type": "object",
4172                                     "properties": {
4173                                         "modes": {
4174                                             "type": "array",
4175                                             "description": "Desired mode",
4176                                             "items": {
4177                                                 "type": "string"
4178                                             }
4179                                         }
4180                                     }
4181                                 },
4182                             "type": "object",
4183                             "allOf": [
4184                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4185                                 {"$ref": "#/definitions/oic.r.mode"}
4186                             ],
4187                             "required": ["modes"]
4188                         }
4189
4190
4191                     example: /
4192                         {
4193                             "id": "unique_example_id",
4194                             "modes": ["armedAway"]
4195                         }
4196
4197         403:
4198             description: |
4199                 This response is generated by the OIC Server when the client sends:
4200                 An update with an value for mode that is not found in supportedModes.
4201                 The server responds with the current resource representation.
4202
4203             body:
4204                 application/json:
4205                     schema: /
4206                         {
4207                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",
4208                             "$schema": "http://json-schema.org/draft-04/schema#",
4209                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4210 rights reserved.",
4211                             "title": "Mode",
4212                             "definitions": {
4213                                 "oic.r.mode": {
4214                                     "type": "object",
4215                                     "properties": {
4216                                         "supportedModes": {
4217                                             "type": "array",
4218                                             "readOnly": true,
4219                                             "description": "Array of possible modes the device supports.",
4220                                             "items": {
4221                                                 "type": "string"
4222                                             }
4223                                         }
4224                                     }
4225                                 }
4226                             }
4227

```

```

4223     },
4224     "modes": {
4225         "type": "array",
4226         "description": "Array of the currently active mode(s)",
4227         "items": {
4228             "type": "string"
4229         }
4230     }
4231 },
4232 },
4233 },
4234 "type": "object",
4235 "allOf": [
4236     {"$ref": "oic.baseresource.json#/definitions/oic.r.baseresource"},
4237     {"$ref": "#/definitions/oic.r.mode"}
4238 ],
4239 "required": ["supportedModes", "modes"]
4240 }
4241
4242 example: /
4243 {
4244     "id": "unique_example_id",
4245     "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
4246     "modes": ["active"]
4247 }
4248

```

4249 6.16.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
modes	array: see schema	yes		Array of the currently active mode(s)

4250 6.16.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ModeResURI		get	post		

4251 6.17 Open Level

4252 6.17.1 Introduction

4253 This resource describes how open or ajar an entity such as a window, door, blind or shutter is. The
4254 openLevel can be read (acting as a sensor). The openLevel can also be set (acting as an actuator).
4255 The openLevel is device dependent across the range provided. When range (from
4256 oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed, 100 means fully
4257 open. If a range is provided then the lower bound=closed, upper bound=open. If step (from
4258 oic.r.baseresource) is present then it represents the increment between possible values; if not
4259 provided 1 is assumed.

4260 6.17.2 Example URI

4261 /OpenLevelResURI

4262 6.17.3 Resource Type

4263 The resource type (rt) is defined as: oic.r.openlevel.

4264 6.17.4 RAML Definition

```

4265 #%RAML 0.8
4266 title: OICOpenLevel
4267 version: v1.1.0-20160519
4268 traits:

```

```

4269 - interface :
4270     queryParameters:
4271         if:
4272             enum: ["oic.if.a", "oic.if.baseline"]
4273
4274 /OpenLevelResURI:
4275     description: |
4276         This resource describes how open or ajar an entity such as a window, door, blind or shutter is.
4277         The openLevel can be read (acting as a sensor).
4278         The openLevel can also be set (acting as an actuator).
4279         The openLevel is device dependent across the range provided.
4280         When range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed,
4281         100 means fully open.
4282         If a range is provided then the lower bound=closed, upper bound=open.
4283         If step (from oic.r.baseresource) is present then it represents the increment between possible
4284         values; if not provided 1 is assumed.
4285
4286     is : ['interface']
4287     get:
4288         description: |
4289             Retrieves the current openLevel.
4290
4291     responses :
4292         200:
4293             body:
4294                 application/json:
4295                     schema: /
4296                         {
4297                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4298                             "$schema": "http://json-schema.org/draft-04/schema#",
4299                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4300                             rights reserved.",
4301                             "title": "Open Level",
4302                             "definitions": {
4303                                 "oic.r.openlevel": {
4304                                     "type": "object",
4305                                     "properties": {
4306                                         "openLevel": {
4307                                             "type": "integer",
4308                                             "description": "How open or ajar the entity is"
4309                                         },
4310                                         "increment": {
4311                                             "type": "integer",
4312                                             "description": "Deprecated, use 'step' instead.",
4313                                             "readOnly": true
4314                                         }
4315                                     }
4316                                 },
4317                             "type": "object",
4318                             "allOf": [
4319                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4320                                 {"$ref": "#/definitions/oic.r.openlevel"}
4321                             ],
4322                             "required": ["openLevel"]
4323                         }
4324
4325     example: /
4326         {
4327             "rt":          ["oic.r.openlevel"],
4328             "id":          "unique_example_id",
4329             "openLevel":  50,
4330             "step":       2,

```



```

4332         "range":      [0,100]
4333     }
4334
4335     post:
4336         description: |
4337             Sets the desired openLevel.
4338
4339         body:
4340             application/json:
4341                 schema: /
4342                     {
4343                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4344                         "$schema": "http://json-schema.org/draft-04/schema#",
4345                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4346 reserved.",
4347                         "title": "Open Level",
4348                         "definitions": {
4349                             "oic.r.openlevel": {
4350                                 "type": "object",
4351                                 "properties": {
4352                                     "openLevel": {
4353                                         "type": "integer",
4354                                         "description": "How open or ajar the entity is"
4355                                     },
4356                                     "increment": {
4357                                         "type": "integer",
4358                                         "description": "Deprecated, use 'step' instead.",
4359                                         "readOnly": true
4360                                     }
4361                                 }
4362                             },
4363                         },
4364                         "type": "object",
4365                         "allOf": [
4366                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4367                             {"$ref": "#/definitions/oic.r.openlevel"}
4368                         ],
4369                         "required": ["openLevel"]
4370                     }
4371
4372                 example: /
4373                     {
4374                         "id":          "unique_example_id",
4375                         "openLevel":  0
4376                     }
4377
4378     responses :
4379         200:
4380             body:
4381                 application/json:
4382                     schema: /
4383                         {
4384                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4385                             "$schema": "http://json-schema.org/draft-04/schema#",
4386                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4387 rights reserved.",
4388                             "title": "Open Level",
4389                             "definitions": {
4390                                 "oic.r.openlevel": {
4391                                     "type": "object",
4392                                     "properties": {
4393                                         "openLevel": {
4394                                             "type": "integer",
4395                                             "description": "How open or ajar the entity is"

```

```

4396         },
4397         "increment": {
4398             "type": "integer",
4399             "description": "Deprecated, use 'step' instead.",
4400             "readOnly": true
4401         }
4402     }
4403 }
4404 },
4405 "type": "object",
4406 "allOf": [
4407     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4408     {"$ref": "#/definitions/oic.r.openlevel"}
4409 ],
4410 "required": ["openLevel"]
4411 }
4412
4413 example: /
4414 {
4415     "id": "unique_example_id",
4416     "openLevel": 0
4417 }
4418
4419 403:
4420 description: |
4421     This response is generated by the OIC Server when the client sends:
4422     An update with an out of range property value for openLevel.
4423     The server responds with the current resource representation.
4424
4425 body:
4426 application/json:
4427     schema: /
4428     {
4429         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4430         "$schema": "http://json-schema.org/draft-04/schema#",
4431         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4432 rights reserved.",
4433         "title": "Open Level",
4434         "definitions": {
4435             "oic.r.openlevel": {
4436                 "type": "object",
4437                 "properties": {
4438                     "openLevel": {
4439                         "type": "integer",
4440                         "description": "How open or ajar the entity is"
4441                     },
4442                     "increment": {
4443                         "type": "integer",
4444                         "description": "Deprecated, use 'step' instead.",
4445                         "readOnly": true
4446                     }
4447                 }
4448             }
4449         },
4450         "type": "object",
4451         "allOf": [
4452             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4453             {"$ref": "#/definitions/oic.r.openlevel"}
4454         ],
4455         "required": ["openLevel"]
4456     }
4457
4458 example: /
4459 {
4460     "id": "unique_example_id",
4461     "openLevel": 50,

```

```

4462         "step":      2,
4463         "range":     [0,100]
4464     }
4465

```

4466 6.17.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
openLevel	integer	yes		How open or ajar the entity is
increment	integer		Read Only	Deprecated, use 'step' instead.

4467 6.17.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/OpenLevelResURI		get	post		

4468 6.18 Operational State

4469 6.18.1 Introduction

4470 This resource describes the operational and job states on a device. The states can be read or set,
4471 setting indicates a desired state. A device may reject an attempt to set a state that would result in
4472 adverse operational characteristics. The machineStates is an array of the possible operational
4473 states. The currentMachineState is the current state of operation of the device. The jobStates is
4474 an array of the possible job states. The currentJobState is the currently active jobState. The
4475 runningTime is the ISO8601 encoded elapsed time in the current operational state. The
4476 remainingTime is the ISO8601 encoded time till completion of the current operational state. The
4477 progressPercentage is the percentage completeness of the current jobState.

4478 6.18.2 Example URI

4479 /OperationalStateResURI

4480 6.18.3 Resource Type

4481 The resource type (rt) is defined as: oic.r.operational.state.

4482 6.18.4 RAML Definition

```

4483 #%RAML 0.8
4484 title: OICOperation
4485 version: v1.1.0-20160519
4486 traits:
4487   - interface :
4488       queryParameters:
4489         if:
4490           enum: ["oic.if.a", "oic.if.baseline"]
4491
4492 /OperationalStateResURI:
4493   description: |
4494     This resource describes the operational and job states on a device.
4495     The states can be read or set, setting indicates a desired state.
4496     A device may reject an attempt to set a state that would result
4497     in adverse operational characteristics.
4498     The machineStates is an array of the possible operational states.
4499     The currentMachineState is the current state of operation of the device.
4500     The jobStates is an array of the possible job states.
4501     The currentJobState is the currently active jobState.
4502     The runningTime is the ISO8601 encoded elapsed time in the current operational state.
4503     The remainingTime is the ISO8601 encoded time till completion of the current operational state.
4504     The progressPercentage is the percentage completeness of the current jobState.
4505
4506   is : ['interface']

```

```

4507 get:
4508     description: |
4509         Retrieves the current operational and job states.
4510
4511     responses :
4512         200:
4513             body:
4514                 application/json:
4515                     schema: /
4516
4517                     {
4518                         "id":
4519                         "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state.json#",
4520                         "$schema": "http://json-schema.org/draft-04/schema#",
4521                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4522 rights reserved.",
4523                         "title": "Operational State",
4524                         "definitions": {
4525                             "oic.r.operational.state": {
4526                                 "type": "object",
4527                                 "properties": {
4528                                     "machineStates": {
4529                                         "type": "array",
4530                                         "readOnly": true,
4531                                         "description": "array of the possible operational states.",
4532                                         "items": {
4533                                             "type": "string"
4534                                         }
4535                                     },
4536                                     "currentMachineState": {
4537                                         "type": "string",
4538                                         "description": "Current state of operation of the device."
4539                                     },
4540                                     "jobStates": {
4541                                         "type": "array",
4542                                         "readOnly": true,
4543                                         "description": "array of the possible job states.",
4544                                         "items": {
4545                                             "type": "string"
4546                                         }
4547                                     },
4548                                     "currentJobState": {
4549                                         "type": "string",
4550                                         "description": "Currently active jobState"
4551                                     },
4552                                     "runningTime": {
4553                                         "type": "string",
4554                                         "readOnly": true,
4555                                         "description": "Elapsed time in the current operational state"
4556                                     },
4557                                     "remainingTime": {
4558                                         "type": "string",
4559                                         "readOnly": true,
4560                                         "description": "Time till completion of the current operational state"
4561                                     },
4562                                     "progressPercentage": {
4563                                         "type": "integer",
4564                                         "readOnly": true,
4565                                         "description": "Percentage completeness of the current jobState",
4566                                         "minimum": 0,
4567                                         "maximum": 100
4568                                     }
4569                                 }
4570                             }
4571                         },
4572                         "type": "object",
4573                         "allOf": [
4574                             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4575                             { "$ref": "#/definitions/oic.r.operational.state" }
4576                         ]
4577                     }

```

```

4575         ],
4576         "required": ["machineStates", "currentMachineState"]
4577     }
4578
4579     example: /
4580     {
4581         "rt":             ["oic.r.operational.state"],
4582         "id":             "unique_example_id",
4583         "machineStates": ["pause", "stopped", "idle", "active"],
4584         "currentMachineState": "active",
4585         "jobStates":      ["preWash", "wash", "rinse", "spin", "dry", "airDry",
4586 "wrinklePrevent"],
4587         "currentJobState": "rinse",
4588         "runningTime":    "PT15M20S",
4589         "remainingTime":  "PT10M40S",
4590         "progressPercentage": 75
4591     }
4592
4593     post:
4594         description: |
4595             Sets the desired operational or job state.
4596
4597     body:
4598         application/json:
4599             schema: /
4600             {
4601                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state-
4602 Update.json#",
4603                 "$schema": "http://json-schema.org/draft-04/schema#",
4604                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4605 reserved.",
4606                 "title": "Operational State",
4607                 "definitions": {
4608                     "oic.r.operational.state": {
4609                         "type": "object",
4610                         "properties": {
4611                             "currentMachineState": {
4612                                 "type": "string",
4613                                 "description": "Current state of operation of the device."
4614                             },
4615                             "currentJobState": {
4616                                 "type": "string",
4617                                 "description": "Currently active jobState"
4618                             }
4619                         }
4620                     }
4621                 },
4622                 "type": "object",
4623                 "allOf": [
4624                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4625                     {"$ref": "#/definitions/oic.r.operational.state"}
4626                 ]
4627             }
4628
4629     example: /
4630     {
4631         "id":             "unique_example_id",
4632         "currentMachineState": "pause",
4633         "currentJobState":    "wash"
4634     }
4635
4636     responses :
4637         200:
4638             body:

```

```

4639     application/json:
4640         schema: /
4641             {
4642                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state-
4643 Update.json#",
4644                 "$schema": "http://json-schema.org/draft-04/schema#",
4645                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4646 rights reserved.",
4647                 "title": "Operational State",
4648                 "definitions": {
4649                     "oic.r.operational.state": {
4650                         "type": "object",
4651                         "properties": {
4652                             "currentMachineState": {
4653                                 "type": "string",
4654                                 "description": "Current state of operation of the device."
4655                             },
4656                             "currentJobState": {
4657                                 "type": "string",
4658                                 "description": "Currently active jobState"
4659                             }
4660                         }
4661                     }
4662                 },
4663                 "type": "object",
4664                 "allOf": [
4665                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4666                     {"$ref": "#/definitions/oic.r.operational.state"}
4667                 ]
4668             }
4669

```

```

4670     example: /
4671         {
4672             "id": "unique_example_id",
4673             "currentMachineState": "pause",
4674             "currentJobState": "wash"
4675         }
4676

```

4677 403:

```

4678     description: |
4679         This response is generated by the OIC Server when the client sends:
4680         An update with an value for currentMachineState that is not found in machineStates.
4681         An update with an value for currentJobState that is not found in jobStates.
4682         The server responds with the current resource representation.
4683

```

4684 body:

```

4685     application/json:
4686         schema: /
4687             {
4688                 "id":
4689 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state.json#",
4690                 "$schema": "http://json-schema.org/draft-04/schema#",
4691                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4692 rights reserved.",
4693                 "title": "Operational State",
4694                 "definitions": {
4695                     "oic.r.operational.state": {
4696                         "type": "object",
4697                         "properties": {
4698                             "machineStates": {
4699                                 "type": "array",
4700                                 "readOnly": true,
4701                                 "description": "array of the possible operational states.",
4702                                 "items": {
4703                                     "type": "string"
4704                                 }
4705                             }
4706                         }
4707                     }
4708                 }
4709             }

```

```

4705     },
4706     "currentMachineState": {
4707         "type": "string",
4708         "description": "Current state of operation of the device."
4709     },
4710     "jobStates": {
4711         "type": "array",
4712         "readOnly": true,
4713         "description": "array of the possible job states.",
4714         "items": {
4715             "type": "string"
4716         }
4717     },
4718     "currentJobState": {
4719         "type": "string",
4720         "description": "Currently active jobState"
4721     },
4722     "runningTime": {
4723         "type": "string",
4724         "readOnly": true,
4725         "description": "Elapsed time in the current operational state"
4726     },
4727     "remainingTime": {
4728         "type": "string",
4729         "readOnly": true,
4730         "description": "Time till completion of the current operational state"
4731     },
4732     "progressPercentage": {
4733         "type": "integer",
4734         "readOnly": true,
4735         "description": "Percentage completeness of the current jobState",
4736         "minimum": 0,
4737         "maximum": 100
4738     }
4739 }
4740 }
4741 },
4742 "type": "object",
4743 "allOf": [
4744     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4745     {"$ref": "#/definitions/oic.r.operational.state"}
4746 ],
4747 "required": ["machineStates", "currentMachineState"]
4748 }
4749
4750 example: /
4751 {
4752     "id": "unique_example_id",
4753     "machineStates": ["pause", "stopped", "idle", "active"],
4754     "currentMachineState": "active",
4755     "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
4756 "wrinklePrevent"],
4757     "currentJobState": "rinse",
4758     "runningTime": "PT15M20S",
4759     "remainingTime": "PT10M40S",
4760     "progressPercentage": 75
4761 }
4762

```

4763 6.18.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
currentMachineState	string	yes		Current state of operation of the device.
currentJobState	string			Currently active jobState

machineStates	array: schema	see yes	Read Only	array of the possible operational states.
runningTime	string		Read Only	Elapsed time in the current operational state
remainingTime	string		Read Only	Time till completion of the current operational state
progressPercentage	integer		Read Only	Percentage completeness of the current jobState
jobStates	array: schema	see	Read Only	array of the possible job states.

4764 **6.18.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/OperationalStateResURI		get	post		

4765 **6.19 Ramp Time**

4766 **6.19.1 Introduction**

4767 This resource that describes the Ramp Time of a dimming function. This specifies the actual speed
 4768 of changing between 2 dimming values. Time is specified in milliseconds [ms]. When range (from
 4769 oic.r.baseresource) is omitted the maximum value is 100 ms. The RampTime of 0ms indicates the
 4770 minimal delay possible by the implementation.

4771 **6.19.2 Example URI**

4772 /RampTimeResURI

4773 **6.19.3 Resource Type**

4774 The resource type (rt) is defined as: oic.r.light.ramptime.

4775 **6.19.4 RAML Definition**

4776 `##RAML 0.8`

4777 `title: OICRampTime`

4778 `version: v1.1.0-20160519`

4779 `traits:`

4780 `- interface :`

4781 `queryParameters:`

4782 `if:`

4783 `enum: ["oic.if.a", "oic.if.baseline"]`

4784

4785 `/RampTimeResURI:`

4786 `description: |`

4787 `This resource that describes the Ramp Time of a dimming function.`

4788 `This specifies the actual speed of changing between 2 dimming values.`

4789 `Time is specified in milliseconds [ms].`

4790 `When range (from oic.r.baseresource) is omitted the maximum value is 100 ms.`

4791 `The RampTime of 0ms indicates the minimal delay possible by the implementation.`

4792

4793 `is : ['interface']`

4794 `get:`


```

4795     description: |
4796         Retrieves the current RampTime.
4797
4798     responses :
4799         200:
4800             body:
4801                 application/json:
4802                     schema: /
4803                         {
4804                             "id":
4805 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4806                             "$schema": "http://json-schema.org/draft-04/schema#",
4807                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4808 rights reserved.",
4809                             "title": "Ramp Time",
4810                             "definitions": {
4811                                 "oic.r.light.ramptime": {
4812                                     "type": "object",
4813                                     "properties": {
4814                                         "rampTime": {
4815                                             "type": "integer",
4816                                             "description": "Actual speed of changing between 2 dimming values"
4817                                         }
4818                                     }
4819                                 }
4820                             },
4821                             "type": "object",
4822                             "allOf": [
4823                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4824                                 {"$ref": "#/definitions/oic.r.light.ramptime"}
4825                             ],
4826                             "required": ["rampTime"]
4827                         }
4828
4829                     example: /
4830                         {
4831                             "rt":          ["oic.r.light.ramptime"],
4832                             "id":          "unique_example_id",
4833                             "rampTime": 0,
4834                             "range":      [0,100]
4835                         }
4836
4837     post:
4838         description: |
4839             Sets the current RampTime.
4840
4841         body:
4842             application/json:
4843                 schema: /
4844                     {
4845                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4846                         "$schema": "http://json-schema.org/draft-04/schema#",
4847                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4848 reserved.",
4849                         "title": "Ramp Time",
4850                         "definitions": {
4851                             "oic.r.light.ramptime": {
4852                                 "type": "object",
4853                                 "properties": {
4854                                     "rampTime": {
4855                                         "type": "integer",
4856                                         "description": "Actual speed of changing between 2 dimming values"
4857                                     }
4858                                 }
4859                             }
4860                         }

```

```

4859     }
4860   },
4861   "type": "object",
4862   "allOf": [
4863     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4864     {"$ref": "#/definitions/oic.r.light.ramptime"}
4865   ],
4866   "required": ["rampTime"]
4867 }
4868
4869 example: /
4870 {
4871   "id":          "unique_example_id",
4872   "rampTime": 50
4873 }
4874
4875 responses :
4876 200:
4877   body:
4878     application/json:
4879       schema: /
4880         {
4881           "id":
4882 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4883           "$schema": "http://json-schema.org/draft-04/schema#",
4884           "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4885 rights reserved.",
4886           "title": "Ramp Time",
4887           "definitions": {
4888             "oic.r.light.ramptime": {
4889               "type": "object",
4890               "properties": {
4891                 "rampTime": {
4892                   "type": "integer",
4893                   "description": "Actual speed of changing between 2 dimming values"
4894                 }
4895             }
4896           },
4897           "type": "object",
4898           "allOf": [
4899             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4900             {"$ref": "#/definitions/oic.r.light.ramptime"}
4901           ],
4902           "required": ["rampTime"]
4903         }
4904       }
4905
4906 example: /
4907 {
4908   "id":          "unique_example_id",
4909   "rampTime": 50
4910 }
4911
4912 403:
4913   description: |
4914     This response is generated by the OIC Server when the client sends:
4915     An update with an out of range property value for rampTime.
4916     The server responds with the current resource representation.
4917
4918   body:
4919     application/json:
4920       schema: /

```

```

4921     {
4922         "id":
4923         "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4924         "$schema": "http://json-schema.org/draft-04/schema#",
4925         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4926 rights reserved.",
4927         "title": "Ramp Time",
4928         "definitions": {
4929             "oic.r.light.ramptime": {
4930                 "type": "object",
4931                 "properties": {
4932                     "rampTime": {
4933                         "type": "integer",
4934                         "description": "Actual speed of changing between 2 dimming values"
4935                     }
4936                 }
4937             }
4938         },
4939         "type": "object",
4940         "allOf": [
4941             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4942             {"$ref": "#/definitions/oic.r.light.ramptime"}
4943         ],
4944         "required": ["rampTime"]
4945     }
4946
4947     example: /
4948     {
4949         "id":          "unique_example_id",
4950         "rampTime": 40
4951     }
4952

```

4953 6.19.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rampTime	integer	yes		Actual speed of changing between 2 dimming values

4954 6.19.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/RampTimeResURI		get	post		

4955 6.20 Refrigeration

4956 6.20.1 Introduction

4957 This resource describes a refrigeration function. The filter state is a read-only value providing the
4958 percentage life time remaining for the water filter. RapidFreeze is a boolean that controls the rapid
4959 freeze capability if present. RapidCool is a boolean that controls the rapid cool capability if present.
4960 Defrost is a boolean that controls the defrost cycle if present. At least one of the listed Properties
4961 shall be present in a Resource Instance.

4962 6.20.2 Example URI

4963 /RefrigerationResURI

4964 6.20.3 Resource Type

4965 The resource type (rt) is defined as: oic.r.refrigeration.

4966 6.20.4 RAML Definition

4967 `##RAML 0.8`

4968 `title: OICRefrigeration`
4969 `version: v1.1.0-20160519`

```

4970 traits:
4971   - interface :
4972     queryParameters:
4973       if:
4974         enum: ["oic.if.a", "oic.if.baseline"]
4975
4976 /RefrigerationResURI:
4977   description: |
4978     This resource describes a refrigeration function.
4979     The filter state is a read-only value providing the percentage life time remaining for the
4980 water filter.
4981     RapidFreeze is a boolean that controls the rapid freeze capability if present.
4982     RapidCool is a boolean that controls the rapid cool capability if present.
4983     Defrost is a boolean that controls the defrost cycle if present.
4984     At least one of the listed Properties shall be present in a Resource Instance.
4985
4986   is : ['interface']
4987   get:
4988     description: |
4989       Retrieves the current Refrigeration function status; all Properties supported by the Device
4990 are returned.
4991
4992   responses :
4993     200:
4994       body:
4995         application/json:
4996           schema: /
4997             {
4998               "id":
4999 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration.json#",
5000               "$schema": "http://json-schema.org/draft-04/schema#",
5001               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5002 rights reserved.",
5003               "title": "Refrigeration",
5004               "definitions": {
5005                 "oic.r.refrigeration": {
5006                   "type": "object",
5007                   "anyOf": [
5008                     {"required": ["filter"]},
5009                     {"required": ["rapidFreeze"]},
5010                     {"required": ["rapidCool"]},
5011                     {"required": ["defrost"]}
5012                   ],
5013                   "properties": {
5014                     "filter": {
5015                       "type": "integer",
5016                       "readOnly": true,
5017                       "description": "Percentage life time remaining for the water filter",
5018                       "minimum": 0,
5019                       "maximum": 100
5020                     },
5021                     "rapidFreeze": {
5022                       "type": "boolean",
5023                       "description": "Indicates whether the unit has a rapid freeze capability
5024 active."
5025                     },
5026                     "rapidCool": {
5027                       "type": "boolean",
5028                       "description": "Indicates whether the unit has a rapid cool capability
5029 active"
5030                     },
5031                     "defrost": {
5032                       "type": "boolean",
5033                       "description": "Indicates whether a defrost cycle is currently active"

```

```

5034         }
5035     }
5036 }
5037 },
5038 "type": "object",
5039 "allOf": [
5040     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5041     {"$ref": "#/definitions/oic.r.refrigeration"}
5042 ]
5043 }
5044
5045 example: /
5046 {
5047     "rt":          ["oic.r.refrigeration"],
5048     "id":          "unique_example_id",
5049     "filter":     75,
5050     "rapidFreeze": false,
5051     "rapidCool":  false,
5052     "defrost":    true
5053 }
5054
5055 post:
5056     description: |
5057         Activates the desired Refrigeration functions.
5058         Supported values are rapidFreeze, rapidCool and defrost.
5059         At least on of the supported values shall be provided.
5060
5061     body:
5062         application/json:
5063             schema: /
5064                 {
5065                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration-
5066 Update.json#",
5067                     "$schema": "http://json-schema.org/draft-04/schema#",
5068                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5069 reserved.",
5070                     "title": "Refrigeration",
5071                     "definitions": {
5072                         "oic.r.refrigeration": {
5073                             "type": "object",
5074                             "anyOf": [
5075                                 {"required": ["rapidFreeze"]},
5076                                 {"required": ["rapidCool"]},
5077                                 {"required": ["defrost"]}
5078                             ],
5079                             "properties": {
5080                                 "rapidFreeze": {
5081                                     "type": "boolean",
5082                                     "description": "Indicates whether the unit has a rapid freeze capability
5083 active."
5084                                 },
5085                                 "rapidCool": {
5086                                     "type": "boolean",
5087                                     "description": "Indicates whether the unit has a rapid cool capability active"
5088                                 },
5089                                 "defrost": {
5090                                     "type": "boolean",
5091                                     "description": "Indicates whether a defrost cycle is currently active"
5092                                 }
5093                             }
5094                         }
5095                     },
5096                     "type": "object",
5097                     "allOf": [
5098                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5099                         {"$ref": "#/definitions/oic.r.refrigeration"}
5100 ]

```

```

5101         }
5102
5103     example: /
5104         {
5105             "id":          "unique_example_id",
5106             "rapidFreeze": true
5107         }
5108
5109     responses :
5110         200:
5111             description: |
5112                 Indicates that the Refrigeration function was changed.
5113                 The new status can be provided in the response.
5114
5115         body:
5116             application/json:
5117                 schema: /
5118                     {
5119                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration-
5120 Update.json#",
5121                         "$schema": "http://json-schema.org/draft-04/schema#",
5122                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5123 rights reserved.",
5124                         "title": "Refrigeration",
5125                         "definitions": {
5126                             "oic.r.refrigeration": {
5127                                 "type": "object",
5128                                 "anyOf": [
5129                                     {"required": ["rapidFreeze"]},
5130                                     {"required": ["rapidCool"]},
5131                                     {"required": ["defrost"]}
5132                                 ],
5133                                 "properties": {
5134                                     "rapidFreeze": {
5135                                         "type": "boolean",
5136                                         "description": "Indicates whether the unit has a rapid freeze capability
5137 active."
5138                                     },
5139                                     "rapidCool": {
5140                                         "type": "boolean",
5141                                         "description": "Indicates whether the unit has a rapid cool capability
5142 active"
5143                                     },
5144                                     "defrost": {
5145                                         "type": "boolean",
5146                                         "description": "Indicates whether a defrost cycle is currently active"
5147                                     }
5148                                 }
5149                             }
5150                         },
5151                         "type": "object",
5152                         "allOf": [
5153                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5154                             {"$ref": "#/definitions/oic.r.refrigeration"}
5155                         ]
5156                     }
5157
5158     example: /
5159         {
5160             "id":          "unique_example_id",
5161             "rapidFreeze": true
5162         }
5163

```

5164 **6.20.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
filter	integer	yes	Read Only	Percentage life time remaining for the water filter
rapidFreeze	boolean	yes		Indicates whether the unit has a rapid freeze capability active.
defrost	boolean	yes		Indicates whether a defrost cycle is currently active
rapidCool	boolean	yes		Indicates whether the unit has a rapid cool capability active

5165 **6.20.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/RefrigerationResURI		get	post		

5166 **6.21 Temperature**

5167 **6.21.1 Introduction**

5168 This resource describes a sensed or actuated Temperature value. The temperature describes the
 5169 current value measured. The units is a single value that is one of C, F or K. It provides the unit of
 5170 measurement for the temperature value. It is a read-only value that is provided by the server. If
 5171 the units Property is missing the default is Celsius [C]. When range (from oic.r.baseresource) is
 5172 omitted the default is +/- MAXINT.

5173 **6.21.2 Example URI**

5174 /TemperatureResURI

5175 **6.21.3 Resource Type**

5176 The resource type (rt) is defined as: oic.r.temperature.

5177 **6.21.4 RAML Definition**

```

5178 #%RAML 0.8
5179 title: OICTemperature
5180 version: v1.1.0-20160519
5181 traits:
5182   - interface :
5183     queryParameters:
5184       if:
5185         enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]
5186
5187 /TemperatureResURI:
5188   description: |
5189     This resource describes a sensed or actuated Temperature value.
5190     The temperature describes the current value measured.
5191     The units is a single value that is one of C, F or K.
5192     It provides the unit of measurement for the temperature value.
5193     It is a read-only value that is provided by the server.
5194     If the units Property is missing the default is Celsius [C].
  
```

```

5195     When range (from oic.r.baseresource) is omitted the default is +/- MAXINT.
5196
5197     is : ['interface']
5198     get:
5199         description: |
5200             Retrieves the current temperature value.
5201             A client can specify the units for the requested temperature by use of a query parameter.
5202             If no query parameter is provided the server provides its default measure or set value.
5203             It is recommended to return always the units Property in the result.
5204
5205     queryParameters:
5206         units:
5207             enum: CFK
5208     responses :
5209         200:
5210             body:
5211                 application/json:
5212                     schema: /
5213                         {
5214                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5215                             "$schema": "http://json-schema.org/draft-04/schema#",
5216                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
5217                             "title": "Temperature",
5218                             "definitions": {
5219                                 "oic.r.temperature": {
5220                                     "type": "object",
5221                                     "properties": {
5222                                         "temperature": {
5223                                             "type": "number",
5224                                             "description": "Current temperature setting or measurement"
5225                                         },
5226                                         "units": {
5227                                             "enum": ["C","F","K"],
5228                                             "description": "Units for the temperature value",
5229                                             "readOnly": true
5230                                         }
5231                                     }
5232                                 }
5233                             },
5234                             "type": "object",
5235                             "allOf": [
5236                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5237                                 {"$ref": "#/definitions/oic.r.temperature"}
5238                             ],
5239                             "required": ["temperature"]
5240                         }
5241
5242     example: /
5243         {
5244             "rt": ["oic.r.temperature"],
5245             "id": "unique_example_id",
5246             "temperature": 20.0,
5247             "units": "C",
5248             "range": [0.0,100.0]
5249         }
5250
5251
5252     403:
5253         description: |
5254             This response is generated by the OIC Server when the client sends:
5255             A retrieve with q queryParameter indicating a unit that the server does not support.
5256             The server responds with the current resource representation including the

```



```

5257         units property illustrating the supported units and the error.
5258
5259     body:
5260     application/json:
5261         schema: /
5262             {
5263                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5264                 "$schema": "http://json-schema.org/draft-04/schema#",
5265                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5266 rights reserved.",
5267                 "title": "Temperature",
5268                 "definitions": {
5269                     "oic.r.temperature": {
5270                         "type": "object",
5271                         "properties": {
5272                             "temperature": {
5273                                 "type": "number",
5274                                 "description": "Current temperature setting or measurement"
5275                             },
5276                             "units": {
5277                                 "enum": ["C","F","K"],
5278                                 "description": "Units for the temperature value",
5279                                 "readOnly": true
5280                             }
5281                         }
5282                     }
5283                 },
5284                 "type": "object",
5285                 "allOf": [
5286                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5287                     {"$ref": "#/definitions/oic.r.temperature"}
5288                 ],
5289                 "required": ["temperature"]
5290             }
5291
5292     example: /
5293         {
5294             "id":          "unique_example_id",
5295             "temperature": 20.0,
5296             "units":      "C"
5297         }
5298
5299     post:
5300     description: |
5301     Sets the desired temperature value.
5302     If a unit is included and the server does not support the unit indicated the request will
5303 fail.
5304     If the units are omitted value is taken to be in C.
5305
5306     body:
5307     application/json:
5308         schema: /
5309             {
5310                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5311                 "$schema": "http://json-schema.org/draft-04/schema#",
5312                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5313 reserved.",
5314                 "title": "Temperature",
5315                 "definitions": {
5316                     "oic.r.temperature": {
5317                         "type": "object",
5318                         "properties": {
5319                             "temperature": {
5320                                 "type": "number",
5321                                 "description": "Current temperature setting or measurement"

```

```

5322         },
5323         "units": {
5324             "enum": ["C", "F", "K"],
5325             "description": "Units for the temperature value",
5326             "readOnly": true
5327         }
5328     }
5329 }
5330 },
5331 "type": "object",
5332 "allOf": [
5333     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5334     {"$ref": "#/definitions/oic.r.temperature"}
5335 ],
5336 "required": ["temperature"]
5337 }
5338
5339 example: /
5340 {
5341     "id": "unique_example_id",
5342     "temperature": 18.0
5343 }
5344
5345 responses :
5346 200:
5347     body:
5348         application/json:
5349             schema: /
5350                 {
5351                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5352                     "$schema": "http://json-schema.org/draft-04/schema#",
5353                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5354 rights reserved.",
5355                     "title": "Temperature",
5356                     "definitions": {
5357                         "oic.r.temperature": {
5358                             "type": "object",
5359                             "properties": {
5360                                 "temperature": {
5361                                     "type": "number",
5362                                     "description": "Current temperature setting or measurement"
5363                                 },
5364                                 "units": {
5365                                     "enum": ["C", "F", "K"],
5366                                     "description": "Units for the temperature value",
5367                                     "readOnly": true
5368                                 }
5369                             }
5370                         }
5371                     },
5372                     "type": "object",
5373                     "allOf": [
5374                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5375                         {"$ref": "#/definitions/oic.r.temperature"}
5376                     ],
5377                     "required": ["temperature"]
5378                 }
5379
5380 example: /
5381 {
5382     "id": "unique_example_id",
5383     "temperature": 18.0
5384 }
5385
5386 403:

```

```

5387     description: |
5388         This response is generated by the OIC Server when the client sends:
5389         An update with an out of range property value for temperature.
5390         An update with an unsupported unit for this server.
5391         The server responds with the current resource representation including
5392         the range property illustrating the supported range and the error.
5393
5394     body:
5395         application/json:
5396
5397             schema: /
5398
5399             {
5400                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5401                 "$schema": "http://json-schema.org/draft-04/schema#",
5402                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
5403                 "title": "Temperature",
5404                 "definitions": {
5405                     "oic.r.temperature": {
5406                         "type": "object",
5407                         "properties": {
5408                             "temperature": {
5409                                 "type": "number",
5410                                 "description": "Current temperature setting or measurement"
5411                             },
5412                             "units": {
5413                                 "enum": ["C", "F", "K"],
5414                                 "description": "Units for the temperature value",
5415                                 "readOnly": true
5416                             }
5417                         }
5418                     },
5419                     "type": "object",
5420                     "allOf": [
5421                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5422                         {"$ref": "#/definitions/oic.r.temperature"}
5423                     ],
5424                     "required": ["temperature"]
5425                 }
5426
5427             example: /
5428
5429             {
5430                 "id": "unique_example_id",
5431                 "temperature": 20.0,
5432                 "units": "C",
5433                 "range": [0.0,100.0]
5434             }

```

6.21.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
units	multiple types: see schema		Read Only	Units for the temperature value
temperature	number	yes		Current temperature setting or measurement

6.21.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/TemperatureResURI		get	post		

5437 6.22 Time Period

5438 6.22.1 Introduction

5439 This resource describes the time period over which any additionally provided information is derived
5440 or bounded. The startTime and stopTime are ISO8601 encoded strings. startTime must be present.
5441 The interval is the interval of the time period in minutes, if present this value must be no less than
5442 1 minute. stoptime and interval are mutually exclusive; both Properties cannot be present in a
5443 Resource instance.

5444 6.22.2 Example URI

5445 /TimePeriodResURI

5446 6.22.3 Resource Type

5447 The resource type (rt) is defined as: oic.r.time.period.

5448 6.22.4 RAML Definition

5449 `##RAML 0.8`

5450 `title: OICTimePeriod`

5451 `version: v1.1.0-20160519`

5452 `traits:`

5453 `- interface :`

5454 `queryParameters:`

5455 `if:`

5456 `enum: ["oic.if.a", "oic.if.baseline"]`

5457

5458 `/TimePeriodResURI:`

5459 `description: |`

5460 `This resource describes the time period over which any additionally provided`

5461 `information is derived or bounded.`

5462 `The startTime and stopTime are ISO8601 encoded strings`

5463 `startTime must be present.`

5464 `The interval is the interval of the time period in minutes, if present this value must be no`

5465 `less than 1 minute.`

5466 `stoptime and interval are mutually exclusive; both Properties cannot be present in a Resource`

5467 `instance.`

5468

5469 `is : ['interface']`

5470 `get:`

5471 `description: |`

5472 `Defines a time period for information retrieval, action or other behaviour.`

5473

5474 `responses :`

5475 `200:`

5476 `body:`

5477 `application/json:`

5478 `schema: |`

5479 `{`

5480 `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",`

5481 `"$schema": "http://json-schema.org/draft-04/schema#",`

5482 `"description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`

5483 `rights reserved.",`

5484 `"title": "Time Period",`

5485 `"definitions": {`

5486 `"oic.r.time.period": {`

5487 `"type": "object",`

5488 `"properties": {`

5489 `"startTime":{`

5490 `"type": "string",`

5491 `"description": "Start time for the time period"`

```

5492         },
5493         "stopTime": {
5494             "type": "string",
5495             "description": "Stop time for the time period, if present interval cannot
5496 be present"
5497         },
5498         "interval": {
5499             "type": "integer",
5500             "description": "Time interval in minutes after the startTime, if present
5501 stopTime cannot be present"
5502         }
5503     },
5504     "required": ["startTime"]
5505 }
5506 },
5507 "type": "object",
5508 "allOf": [
5509     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5510     {"$ref": "#/definitions/oic.r.time.period"}
5511 ]
5512 }
5513
5514 example: /
5515 {
5516     "rt": ["oic.r.time.period"],
5517     "id": "unique_example_id",
5518     "startTime": "2015-01-09T14:30Z",
5519     "stopTime": "2015-01-09T14:45Z"
5520 }
5521
5522 post:
5523     description: |
5524     Sets or updates a time period for information retrieval, action or other behavior.
5525
5526     body:
5527     application/json:
5528     schema: /
5529     {
5530         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
5531         "$schema": "http://json-schema.org/draft-04/schema#",
5532         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5533 reserved.",
5534         "title": "Time Period",
5535         "definitions": {
5536             "oic.r.time.period": {
5537                 "type": "object",
5538                 "properties": {
5539                     "startTime": {
5540                         "type": "string",
5541                         "description": "Start time for the time period"
5542                     },
5543                     "stopTime": {
5544                         "type": "string",
5545                         "description": "Stop time for the time period, if present interval cannot be
5546 present"
5547                     },
5548                     "interval": {
5549                         "type": "integer",
5550                         "description": "Time interval in minutes after the startTime, if present
5551 stopTime cannot be present"
5552                     }
5553                 },
5554                 "required": ["startTime"]
5555             }
5556         },
5557         "type": "object",
5558         "allOf": [

```

```

5559         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5560         {"$ref": "#/definitions/oic.r.time.period"}
5561     ]
5562 }
5563
5564     example: /
5565     {
5566         "id":          "unique_example_id",
5567         "startTime": "2015-01-09T14:30Z",
5568         "stopTime":  "2015-01-09T14:45Z"
5569     }
5570
5571     responses :
5572     200:
5573         body:
5574         application/json:
5575             schema: /
5576             {
5577                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
5578                 "$schema": "http://json-schema.org/draft-04/schema#",
5579                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5580 rights reserved.",
5581                 "title": "Time Period",
5582                 "definitions": {
5583                     "oic.r.time.period": {
5584                         "type": "object",
5585                         "properties": {
5586                             "startTime": {
5587                                 "type": "string",
5588                                 "description": "Start time for the time period"
5589                             },
5590                             "stopTime": {
5591                                 "type": "string",
5592                                 "description": "Stop time for the time period, if present interval cannot
5593 be present"
5594                             },
5595                             "interval": {
5596                                 "type": "integer",
5597                                 "description": "Time interval in minutes after the startTime, if present
5598 stopTime cannot be present"
5599                             }
5600                         },
5601                         "required": ["startTime"]
5602                     }
5603                 },
5604                 "type": "object",
5605                 "allOf": [
5606                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5607                     {"$ref": "#/definitions/oic.r.time.period"}
5608                 ]
5609             }
5610
5611     example: /
5612     {
5613         "id":          "unique_example_id",
5614         "startTime": "2015-01-09T14:30Z",
5615         "stopTime":  "2015-01-09T14:45Z"
5616     }
5617

```

5618 6.22.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
stopTime	string			Stop time for the time period, if

				present interval cannot be present
startTime	string	yes		Start time for the time period
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

5619 **6.22.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TimePeriodResURI		get	post		

5620 **6.23 Activity Count**

5621 **6.23.1 Introduction**

5622 This resource specifies an activity count. The resource can be readonly (oic.if.s interface) in which
5623 instance it represents a count. The resource can be readwrite (oic.if.a interface) in which instance
5624 it represents a goal or target for a count. The count property is an integer representing either the
5625 current count or goal value.

5626 **6.23.2 Example URI**

5627 /ActivityCountResURI

5628 **6.23.3 Resource Type**

5629 The resource type (rt) is defined as: oic.r.sensor.activity.count.

5630 **6.23.4 RAML Definition**

```

5631 #%RAML 0.8
5632 title: OICActivityCount
5633 version: v1.1.0-20160519
5634 traits:
5635   - interface :
5636     queryParameters:
5637       if:
5638         enum: ["oic.if.s", "oic.if.a", "oic.if.baseline"]
5639
5640 /ActivityCountResURI:
5641   description: |
5642     This resource specifies an activity count.
5643     The resource can be readonly (oic.if.s interface) in which instance it represents a count.
5644     The resource can be readwrite (oic.if.a interface) in which instance it represents a goal or
5645     target for a count.
5646     The count property is an integer representing either the current count or goal value.
5647
5648   is : ['interface']
5649   get:
5650     description: |
5651       Retrieves the current activity count.
5652
5653   responses :
5654     200:
5655       body:
5656         application/json:

```

```

5657         schema: /
5658             {
5659                 "id":
5660 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
5661                 "$schema": "http://json-schema.org/draft-04/schema#",
5662                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5663 rights reserved.",
5664                 "title": "Activity Count Sensor",
5665                 "definitions": {
5666                     "oic.r.sensor.activity.count": {
5667                         "properties": {
5668                             "count": {
5669                                 "type": "integer",
5670                                 "description": "Current or Target count."
5671                             }
5672                         }
5673                     }
5674                 },
5675                 "type": "object",
5676                 "allOf": [
5677                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5678                     {"$ref": "#/definitions/oic.r.sensor.activity.count"}
5679                 ],
5680                 "required": ["count"]
5681             }
5682
5683         example: /
5684             {
5685                 "rt":      ["oic.r.sensor.activity.count"],
5686                 "id":      "unique_example_id",
5687                 "count": 2500
5688             }
5689
5690     post:
5691         description: |
5692             Sets the count target
5693
5694     body:
5695         application/json:
5696             schema: /
5697                 {
5698                     "id":
5699 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
5700                     "$schema": "http://json-schema.org/draft-04/schema#",
5701                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5702 reserved.",
5703                     "title": "Activity Count Sensor",
5704                     "definitions": {
5705                         "oic.r.sensor.activity.count": {
5706                             "properties": {
5707                                 "count": {
5708                                     "type": "integer",
5709                                     "description": "Current or Target count."
5710                                 }
5711                             }
5712                         }
5713                     },
5714                     "type": "object",
5715                     "allOf": [
5716                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5717                         {"$ref": "#/definitions/oic.r.sensor.activity.count"}
5718                     ],
5719                     "required": ["count"]
5720                 }
5721
5722         example: /

```



```

5723     {
5724         "id": "unique_example_id",
5725         "count": 5000
5726     }
5727
5728     responses :
5729         200:
5730             body:
5731                 application/json:
5732                     schema: /
5733                         {
5734                             "id":
5735 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
5736                             "$schema": "http://json-schema.org/draft-04/schema#",
5737                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5738 rights reserved.",
5739                             "title": "Activity Count Sensor",
5740                             "definitions": {
5741                                 "oic.r.sensor.activity.count": {
5742                                     "properties": {
5743                                         "count": {
5744                                             "type": "integer",
5745                                             "description": "Current or Target count."
5746                                         }
5747                                     }
5748                                 },
5749                             },
5750                             "type": "object",
5751                             "allOf": [
5752                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5753                                 {"$ref": "#/definitions/oic.r.sensor.activity.count"}
5754                             ],
5755                             "required": ["count"]
5756                         }
5757
5758                     example: /
5759                         {
5760                             "id": "unique_example_id",
5761                             "count": 5000
5762                         }
5763

```

5764 6.23.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
count	integer	yes		Current or Target count.

5765 6.23.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ActivityCountResURI		get	post		

5766 6.24 Atmospheric Pressure Sensor

5767 6.24.1 Introduction

5768 This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring
5769 point expressed in millibars. The value is float which describes the atmospheric pressure in hPa
5770 (hectoPascals). Note that hPa and the also commonly used unit of millibars (mbar) are numerically
5771 equivalent.

5772 6.24.2 Example URI

5773 /AtmosphericPressureResURI

5774 6.24.3 Resource Type

5775 The resource type (rt) is defined as: oic.r.sensor.atmosphericpressure.

5776 6.24.4 RAML Definition

5777 `##RAML 0.8`

5778 `title: OICAtmosphericPressureSensor`

5779 `version: v1.1.0-20160519`

5780 `traits:`

5781 `- interface :`

5782 `queryParameters:`

5783 `if:`

5784 `enum: ["oic.if.s", "oic.if.baseline"]`

5785

5786 `/AtmosphericPressureResURI:`

5787 `description: |`

5788 `This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring`

5789 `point expressed in millibars.`

5790 `The value is float which describes the atmospheric pressure in hPa (hectoPascals).`

5791 `Note that hPa and the also commonly used unit of millibars (mbar) are numerically equivalent.`

5792

5793 `is : ['interface']`

5794 `get:`

5795 `responses :`

5796 `200:`

5797 `body:`

5798 `application/json:`

5799 `schema: /`

5800 `{`

5801 `"id":`

5802 `"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.atmosphericPressure.json#",`

5803 `"$schema": "http://json-schema.org/draft-04/schema#",`

5804 `"description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`

5805 `rights reserved.",`

5806 `"title": "Atmospheric Pressure Sensor",`

5807 `"definitions": {`

5808 `"oic.r.sensor.atmosphericpressure": {`

5809 `"properties": {`

5810 `"atmosphericPressure": {`

5811 `"type": "number",`

5812 `"readOnly": true,`

5813 `"description": "Current atmospheric pressure in hPa."`

5814 `}`

5815 `}`

5816 `}`

5817 `},`

5818 `"type": "object",`

5819 `"allOf": [`

5820 `{"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},`

5821 `{"$ref": "#/definitions/oic.r.sensor.atmosphericpressure"}`

5822 `],`

5823 `"required": ["atmosphericPressure"]`

5824 `}`

5825

5826 `example: /`

5827 `{`

5828 `"rt": ["oic.r.sensor.atmosphericpressure"],`

5829 `"id": "unique_example_id",`

5830 `"atmosphericPressure": 1000.4`

5831 `}`

5832

5833 **6.24.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
atmosphericPressure	number	yes	Read Only	Current atmospheric pressure in hPa.

5834 **6.24.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AtmosphericPressureResURI		get			

5835 **6.25 Audio Controls**

5836 **6.25.1 Introduction**

5837 This resource defines basic audio control functions. The volume is an integer containing a
 5838 percentage [0,100]. A volume of 0 (zero) means no sound produced. A volume of 100 means
 5839 maximum sound production. The mute control is implemented as a boolean. A mute value of true
 5840 means that the device is muted (no audio). A mute value of false means that the device is not
 5841 muted (audio).

5842 **6.25.2 Example URI**

5843 /AudioResURI

5844 **6.25.3 Resource Type**

5845 The resource type (rt) is defined as: oic.r.audio.

5846 **6.25.4 RAML Definition**

```

5847 #%RAML 0.8
5848 title: OICAudio
5849 version: v1.1.0-20160519
5850 traits:
5851   - interface :
5852     queryParameters:
5853       if:
5854         enum: ["oic.if.a", "oic.if.baseline"]
5855
5856 /AudioResURI:
5857   description: |
5858     This resource defines basic audio control functions.
5859     The volume is an integer containing a percentage [0,100].
5860     A volume of 0 (zero) means no sound produced.
5861     A volume of 100 means maximum sound production.
5862     The mute control is implemented as a boolean.
5863     A mute value of true means that the device is muted (no audio).
5864     A mute value of false means that the device is not muted (audio).
5865
5866   is : ['interface']
5867   get:
5868     responses :
5869       200:
5870         body:
5871           application/json:
5872             schema: /
5873               {
5874                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
5875                 "$schema": "http://json-schema.org/draft-04/schema#",
5876                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5877 rights reserved.",
5878                 "definitions": {
  
```

```

5879         "oic.r.audio": {
5880             "type": "object",
5881             "properties": {
5882                 "volume": {
5883                     "type": "integer",
5884                     "description": "Volume setting of an audio rendering device.",
5885                     "minimum": 0,
5886                     "maximum": 100
5887                 },
5888                 "mute": {
5889                     "type": "boolean",
5890                     "description": "Mute setting of an audio rendering device"
5891                 }
5892             }
5893         },
5894     },
5895     "type": "object",
5896     "allOf": [
5897         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5898         {"$ref": "#/definitions/oic.r.audio"}
5899     ],
5900     "required": ["volume","mute"]
5901 }
5902
5903     example: /
5904     {
5905         "rt":      ["oic.r.audio"],
5906         "id":      "unique_example_id",
5907         "volume": 50,
5908         "mute":    false
5909     }
5910
5911     post:
5912     body:
5913     application/json:
5914     schema: /
5915     {
5916         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
5917         "$schema": "http://json-schema.org/draft-04/schema#",
5918         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5919 reserved.",
5920         "definitions": {
5921             "oic.r.audio": {
5922                 "type": "object",
5923                 "properties": {
5924                     "volume": {
5925                         "type": "integer",
5926                         "description": "Volume setting of an audio rendering device.",
5927                         "minimum": 0,
5928                         "maximum": 100
5929                     },
5930                     "mute": {
5931                         "type": "boolean",
5932                         "description": "Mute setting of an audio rendering device"
5933                     }
5934                 }
5935             }
5936         },
5937         "type": "object",
5938         "allOf": [
5939             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5940             {"$ref": "#/definitions/oic.r.audio"}
5941         ],
5942         "required": ["volume","mute"]
5943     }
5944
5945     example: /

```

```

5946     {
5947         "id": "unique_example_id",
5948         "volume": 75,
5949         "mute": false
5950     }
5951
5952     responses :
5953         200:
5954             body:
5955                 application/json:
5956                     schema: /
5957                         {
5958                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
5959                             "$schema": "http://json-schema.org/draft-04/schema#",
5960                             "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5961 rights reserved.",
5962                             "definitions": {
5963                                 "oic.r.audio": {
5964                                     "type": "object",
5965                                     "properties": {
5966                                         "volume": {
5967                                             "type": "integer",
5968                                             "description": "Volume setting of an audio rendering device.",
5969                                             "minimum": 0,
5970                                             "maximum": 100
5971                                         },
5972                                         "mute": {
5973                                             "type": "boolean",
5974                                             "description": "Mute setting of an audio rendering device"
5975                                         }
5976                                     }
5977                                 }
5978                             },
5979                             "type": "object",
5980                             "allOf": [
5981                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5982                                 {"$ref": "#/definitions/oic.r.audio"}
5983                             ],
5984                             "required": ["volume", "mute"]
5985                         }
5986
5987                     example: /
5988                         {
5989                             "id": "unique_example_id",
5990                             "volume": 75,
5991                             "mute": false
5992                         }
5993

```

5994 6.25.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
volume	integer	yes		Volume setting of an audio rendering device.
mute	boolean	yes		Mute setting of an audio rendering device

5995 6.25.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AudioResURI		get	post		

5996 6.26 Auto Focus

5997 6.26.1 Introduction

5998 This resource describes an auto focus on/off feature. The value is a boolean. An AutoFocus value
5999 of 'true' means that the switch is on. An AutoFocus value of 'false' means that the switch is off.
6000 Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus
6001 works only in the selected area.

6002 6.26.2 Example URI

6003 /AutoFocusResURI

6004 6.26.3 Resource Type

6005 The resource type (rt) is defined as: oic.r.autofocus.

6006 6.26.4 RAML Definition

```
6007 #%RAML 0.8
6008 title: OICAutoFocus
6009 version: v1.1.0-20160519
6010 traits:
6011   - interface :
6012     queryParameters:
6013       if:
6014         enum: ["oic.if.a", "oic.if.baseline"]
6015
6016 /AutoFocusResURI:
6017   description: |
6018     This resource describes an auto focus on/off feature.
6019     The value is a boolean.
6020     An AutoFocus value of 'true' means that the switch is on.
6021     An AutoFocus value of 'false' means that the switch is off.
6022     Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus
6023     works only in the selected area.
6024
6025   is : ['interface']
6026   get:
6027     responses :
6028       200:
6029         body:
6030           application/json:
6031             schema: /
6032               {
6033                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
6034                 "$schema": "http://json-schema.org/draft-04/schema#",
6035                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6036 rights reserved.",
6037                 "title": "Auto Focus",
6038                 "definitions": {
6039                   "oic.r.autofocus": {
6040                     "type": "object",
6041                     "properties": {
6042                       "autoFocus": {
6043                         "type": "boolean",
6044                         "description": "Status of the Auto Focus"
6045                       }
6046                     }
6047                   }
6048                 },
6049                 "type": "object",
6050                 "allOf": [
6051                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6052                   {"$ref": "#/definitions/oic.r.autofocus"}
6053                 ]
6054               }
```

```

6053         ],
6054         "required": [ "autoFocus" ]
6055     }
6056
6057     example: /
6058     {
6059         "rt":          ["oic.r.autofocus"],
6060         "id":          "unique_example_id",
6061         "autoFocus":  false
6062     }
6063
6064     post:
6065     body:
6066     application/json:
6067     schema: /
6068     {
6069         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
6070         "$schema": "http://json-schema.org/draft-04/schema#",
6071         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6072 reserved.",
6073         "title": "Auto Focus",
6074         "definitions": {
6075             "oic.r.autofocus": {
6076                 "type": "object",
6077                 "properties": {
6078                     "autoFocus": {
6079                         "type": "boolean",
6080                         "description": "Status of the Auto Focus"
6081                     }
6082                 }
6083             }
6084         },
6085         "type": "object",
6086         "allOf": [
6087             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6088             {"$ref": "#/definitions/oic.r.autofocus"}
6089         ],
6090         "required": [ "autoFocus" ]
6091     }
6092
6093     example: /
6094     {
6095         "id":          "unique_example_id",
6096         "autoFocus":  true
6097     }
6098
6099     responses :
6100     200:
6101     body:
6102     application/json:
6103     schema: /
6104     {
6105         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
6106         "$schema": "http://json-schema.org/draft-04/schema#",
6107         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6108 rights reserved.",
6109         "title": "Auto Focus",
6110         "definitions": {
6111             "oic.r.autofocus": {
6112                 "type": "object",
6113                 "properties": {
6114                     "autoFocus": {
6115                         "type": "boolean",
6116                         "description": "Status of the Auto Focus"

```

```

6117         }
6118     }
6119 }
6120 },
6121 "type": "object",
6122 "allOf": [
6123     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6124     {"$ref": "#/definitions/oic.r.autoFocus"}
6125 ],
6126 "required": [ "autoFocus" ]
6127 }
6128
6129 example: /
6130 {
6131     "id":          "unique_example_id",
6132     "autoFocus":  true
6133 }
6134

```

6.26.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoFocus	boolean	yes		Status of the Auto Focus

6.26.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AutoFocusResURI		get	post		

6.27 Automatic Document Feeder

6.27.1 Introduction

6139 This resource describes the state of an automatic document feeder, typically used with a scanner.
6140 The states are read only. The adfStates is an array of the possible operational states.
6141 adfProcessing is the OK state, other states are errors or require 'user attention'. The
6142 currentAdfState is the current value of the ADF state on the device.

6.27.2 Example URI

6144 /AutomaticDocumentFeederResURI

6.27.3 Resource Type

6146 The resource type (rt) is defined as: oic.r.automaticdocumentfeeder.

6.27.4 RAML Definition

```

6148 #%RAML 0.8
6149 title: OICAutomaticDocumentFeeder
6150 version: v1.1.0-20160519
6151 traits:
6152   - interface :
6153       queryParameters:
6154           if:
6155               enum: ["oic.if.s", "oic.if.baseline"]
6156
6157 /AutomaticDocumentFeederResURI:
6158     description: |
6159         This resource describes the state of an automatic document feeder, typically used with a
6160 scanner.
6161         The states are read only.
6162         The adfStates is an array of the possible operational states.
6163         adfProcessing is the OK state, other states are errors or require 'user attention'.
6164         The currentAdfState is the current value of the ADF state on the device.
6165

```



```

6166     is : ['interface']
6167     get:
6168         description: |
6169             Retrieves the current automatic document feeder state.
6170
6171     responses :
6172         200:
6173             body:
6174                 application/json:
6175                     schema: /
6176                         {
6177                             "id":
6178 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.automaticDocumentFeeder.json#",
6179                             "$schema": "http://json-schema.org/draft-04/schema#",
6180                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6181 rights reserved.",
6182                             "title": "Automatic Document Feeder",
6183                             "definitions": {
6184                                 "oic.r.automaticdocumentfeeder": {
6185                                     "type": "object",
6186                                     "properties": {
6187                                         "adfStates": {
6188                                             "type": "array",
6189                                             "readOnly": true,
6190                                             "description": "array of the possible adf states.",
6191                                             "items": {
6192                                                 "type": "string"
6193                                             }
6194                                         },
6195                                         "currentAdfState": {
6196                                             "type": "string",
6197                                             "readOnly": true,
6198                                             "description": "Current adf state."
6199                                         }
6200                                     }
6201                                 }
6202                             },
6203                             "type": "object",
6204                             "allOf": [
6205                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6206                                 {"$ref": "#/definitions/oic.r.automaticdocumentfeeder"}
6207                             ],
6208                             "required": ["adfStates", "currentAdfState"]
6209                         }
6210
6211         example: /
6212             {
6213                 "rt":             ["oic.r.automaticdocumentfeeder"],
6214                 "id":             "unique_example_id",
6215                 "adfStates":      ["adfProcessing", "adfEmpty", "adfJam", "adfLoaded",
6216 "adfMispick", "adfHatchOpen", "adfDuplexPageTooShort", "adfDuplexPageTooLong",
6217 "adfMultipickDetected", "adfInputTrayFailed", "adfInputTrayOverloaded"],
6218                 "currentAdfState": "adfProcessing"
6219             }
6220

```

6.27.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
adfStates	array: see schema	yes	Read Only	array of the possible adf states.
currentAdfState	string	yes	Read Only	Current adf state.

6222 **6.27.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AutomaticDocumentFeederResURI		get			

6223 **6.28 Button Switch**

6224 **6.28.1 Introduction**

6225 This resource describes the operation of a button style switch. The value is a boolean. A value of
 6226 'true' means that the button is being pushed/pressed. A value of 'false' means that the button is
 6227 not being pushed/pressed.

6228 **6.28.2 Example URI**

6229 /ButtonResURI

6230 **6.28.3 Resource Type**

6231 The resource type (rt) is defined as: oic.r.button.

6232 **6.28.4 RAML Definition**

```

6233 #%RAML 0.8
6234 title: OICButton
6235 version: v1.1.0-20160519
6236 traits:
6237   - interface :
6238       queryParams:
6239           if:
6240               enum: ["oic.if.s", "oic.if.baseline"]
6241
6242 /ButtonResURI:
6243   description: |
6244     This resource describes the operation of a button style switch.
6245     The value is a boolean.
6246     A value of 'true' means that the button is being pushed/pressed.
6247     A value of 'false' means that the button is not being pushed/pressed.
6248
6249   is : ['interface']
6250   get:
6251     responses :
6252       200:
6253         body:
6254           application/json:
6255             schema: /
6256               {
6257                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.button.json#",
6258                 "$schema": "http://json-schema.org/draft-04/schema#",
6259                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6260 rights reserved.",
6261                 "title": "Button Switch",
6262                 "definitions": {
6263                   "oic.r.button": {
6264                     "properties": {
6265                       "value": {
6266                         "type": "boolean",
6267                         "readOnly": true,
6268                         "description": "Status of the button"
6269                       }
6270                     }
6271                   }
6272                 },
6273                 "type": "object",
6274                 "allOf": [

```

```

6275         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6276         {"$ref": "#/definitions/oic.r.button"}
6277     ],
6278     "required": ["value"]
6279 }
6280
6281     example: /
6282     {
6283         "rt":      ["oic.r.button"],
6284         "id":      "unique_example_id",
6285         "value":   true
6286     }
6287

```

6.28.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	Status of the button

6.28.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ButtonResURI		get			

6.29 Carbon Dioxide Sensor

6.29.1 Introduction

This resource describes whether carbon dioxide has been sensed or not. The value is a boolean. A value of 'true' means that carbon dioxide has been detected. A value of 'false' means that carbon dioxide has not been detected.

6.29.2 Example URI

/CarbonDioxideResURI

6.29.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.carbondioxide.

6.29.4 RAML Definition

```

6300 #%RAML 0.8
6301 title: OICCarbonDioxideSensor
6302 version: v1.1.0-20160519
6303 traits:
6304   - interface :
6305     queryParameters:
6306       if:
6307         enum: ["oic.if.s", "oic.if.baseline"]
6308
6309 /CarbonDioxideResURI:
6310   description: |
6311     This resource describes whether carbon dioxide has been sensed or not.
6312     The value is a boolean.
6313     A value of 'true' means that carbon dioxide has been detected.
6314     A value of 'false' means that carbon dioxide has not been detected.
6315
6316   is : ['interface']
6317   get:
6318     responses :
6319       200:
6320         body:
6321           application/json:

```

```

6322     schema: /
6323     {
6324     "id":
6325     "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.carbonDioxide.json#",
6326     "$schema": "http://json-schema.org/draft-04/schema#",
6327     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6328     rights reserved.",
6329     "title": "Carbon Dioxide Sensor",
6330     "definitions": {
6331     "oic.r.sensor.carbondioxide": {
6332     "allOf": [
6333     {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
6334     ]
6335     }
6336     },
6337     "type": "object",
6338     "allOf": [
6339     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6340     {"$ref": "#/definitions/oic.r.sensor.carbondioxide"}
6341     ],
6342     "required": ["value"]
6343     }
6344
6345     example: /
6346     {
6347     "rt": ["oic.r.sensor.carbondioxide"],
6348     "id": "unique_example_id",
6349     "value": true
6350     }
6351

```

6352 6.29.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

6353 6.29.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/CarbonDioxideResURI		get			

6354 6.30 Carbon Monoxide Sensor

6355 6.30.1 Introduction

6356 This resource describes whether carbon monoxide has been sensed or not. The value is a boolean.
6357 A value of 'true' means that carbon monoxide has been detected. A value of 'false' means that
6358 carbon monoxide has not been detected.

6359 6.30.2 Example URI

6360 /CarbonMonoxideResURI

6361 6.30.3 Resource Type

6362 The resource type (rt) is defined as: oic.r.sensor.carbonmonoxide.

6363 6.30.4 RAML Definition

```

6364 #%RAML 0.8
6365 title: OICCarbonMonoxideSensor
6366 version: v1.1.0-20160519
6367 traits:
6368   - interface :
6369     queryParameters:
6370     if:

```

```

6371         enum: ["oic.if.s", "oic.if.baseline"]
6372
6373 /CarbonMonoxideResURI:
6374     description: |
6375         This resource describes whether carbon monoxide has been sensed or not.
6376         The value is a boolean.
6377         A value of 'true' means that carbon monoxide has been detected.
6378         A value of 'false' means that carbon monoxide has not been detected.
6379
6380     is : ['interface']
6381     get:
6382         responses :
6383             200:
6384                 body:
6385                     application/json:
6386                         schema: /
6387                             {
6388                                 "id":
6389 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.carbonMonoxide.json#",
6390                                 "$schema": "http://json-schema.org/draft-04/schema#",
6391                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6392 rights reserved.",
6393                                 "title": "Carbon Monoxide Sensor",
6394                                 "definitions": {
6395                                     "oic.r.sensor.carbonmonoxide": {
6396                                         "allOf": [
6397                                             {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
6398                                         ]
6399                                     }
6400                                 },
6401                                 "type": "object",
6402                                 "allOf": [
6403                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6404                                     {"$ref": "#/definitions/oic.r.sensor.carbonmonoxide"}
6405                                 ],
6406                                 "required": ["value"]
6407                             }
6408
6409                 example: /
6410                     {
6411                         "rt":      ["oic.r.sensor.carbonmonoxide"],
6412                         "id":      "unique_example_id",
6413                         "value":   true
6414                     }
6415

```

6.30.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

6.30.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/CarbonMonoxideResURI		get			

6418 6.31 Auto White Balance

6419 6.31.1 Introduction

6420 This resource describes an auto balance on/off feature. The value is a boolean. An
6421 AutoWhiteBalance value of 'true' means that the switch is on. An AutoWhiteBalance value of 'false'
6422 means that the switch is off.

6423 6.31.2 Example URI

6424 /AutoWhiteBalanceResURI

6425 6.31.3 Resource Type

6426 The resource type (rt) is defined as: oic.r.colour.autowhitebalance.

6427 6.31.4 RAML Definition

```
6428 #%RAML 0.8
6429 title: OICAutoWhiteBalance
6430 version: v1.1.0-20160519
6431 traits:
6432   - interface :
6433       queryParameters:
6434         if:
6435           enum: ["oic.if.a", "oic.if.baseline"]
6436
6437 /AutoWhiteBalanceResURI:
6438   description: |
6439     This resource describes an auto balance on/off feature.
6440     The value is a boolean.
6441     An AutoWhiteBalance value of 'true' means that the switch is on.
6442     An AutoWhiteBalance value of 'false' means that the switch is off.
6443
6444   is : ['interface']
6445   get:
6446     responses :
6447       200:
6448         body:
6449           application/json:
6450             schema: /
6451               {
6452                 "id":
6453 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6454                 "$schema": "http://json-schema.org/draft-04/schema#",
6455                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6456 rights reserved.",
6457                 "title": "Auto White Balance",
6458                 "definitions": {
6459                   "oic.r.colour.autowhitebalance": {
6460                     "type": "object",
6461                     "properties": {
6462                       "autoWhiteBalance": {
6463                         "type": "boolean",
6464                         "description": "Status of the Auto White balance"
6465                       }
6466                     }
6467                   }
6468                 },
6469                 "type": "object",
6470                 "allOf": [
6471                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6472                   {"$ref": "#/definitions/oic.r.colour.autowhitebalance"}
6473                 ],
6474                 "required": [ "autoWhiteBalance" ]
```

```

6475         }
6476
6477     example: /
6478         {
6479             "rt":             ["oic.r.colour.autowhitebalance"],
6480             "id":             "unique_example_id",
6481             "autoWhiteBalance": false
6482         }
6483
6484     post:
6485         body:
6486             application/json:
6487                 schema: /
6488                     {
6489                         "id":
6490 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6491                         "$schema": "http://json-schema.org/draft-04/schema#",
6492                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6493 reserved.",
6494                         "title": "Auto White Balance",
6495                         "definitions": {
6496                             "oic.r.colour.autowhitebalance": {
6497                                 "type": "object",
6498                                 "properties": {
6499                                     "autoWhiteBalance": {
6500                                         "type": "boolean",
6501                                         "description": "Status of the Auto White balance"
6502                                     }
6503                                 }
6504                             },
6505                             "type": "object",
6506                             "allOf": [
6507                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6508                                 { "$ref": "#/definitions/oic.r.colour.autowhitebalance" }
6509                             ],
6510                             "required": [ "autoWhiteBalance" ]
6511                         }
6512
6513
6514     example: /
6515         {
6516             "id":             "unique_example_id",
6517             "autoWhiteBalance": true
6518         }
6519
6520     responses :
6521         200:
6522             body:
6523                 application/json:
6524                     schema: /
6525                         {
6526                             "id":
6527 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6528                             "$schema": "http://json-schema.org/draft-04/schema#",
6529                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6530 rights reserved.",
6531                             "title": "Auto White Balance",
6532                             "definitions": {
6533                                 "oic.r.colour.autowhitebalance": {
6534                                     "type": "object",
6535                                     "properties": {
6536                                         "autoWhiteBalance": {
6537                                             "type": "boolean",
6538                                             "description": "Status of the Auto White balance"

```

```

6539     }
6540   }
6541 }
6542 },
6543 "type": "object",
6544 "allOf": [
6545   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6546   {"$ref": "#/definitions/oic.r.colour.autowhitebalance"}
6547 ],
6548 "required": [ "autoWhiteBalance" ]
6549 }
6550
6551 example: /
6552 {
6553   "id": "unique_example_id",
6554   "autoWhiteBalance": true
6555 }
6556

```

6.31.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoWhiteBalance	boolean	yes		Status of the Auto White balance

6.31.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AutoWhiteBalanceResURI		get	post		

6.32 Colour Saturation

6.32.1 Introduction

This resource describes a Colour saturation value. The value is an integer. A coloursaturation has a range of [0,100]. A coloursaturation value of 0 means producing black and white images. A coloursaturation value of 50 means producing device specific normal colour images. A coloursaturation value of 100 means producing device very full colour images.

6.32.2 Example URI

/ColourSaturationResURI

6.32.3 Resource Type

The resource type (rt) is defined as: oic.r.colour.saturation.

6.32.4 RAML Definition

```

6570 #%RAML 0.8
6571 title: OICColourSaturation
6572 version: v1.1.0-20160519
6573 traits:
6574   - interface :
6575     queryParameters:
6576       if:
6577         enum: ["oic.if.a", "oic.if.baseline"]
6578
6579 /ColourSaturationResURI:
6580   description: |
6581     This resource describes a Colour saturation value.
6582     The value is an integer.
6583     A coloursaturation has a range of [0,100].
6584     A coloursaturation value of 0 means producing black and white images.
6585     A coloursaturation value of 50 means producing device specific normal colour images.

```



```

6586     A coloursaturation value of 100 means producing device very full colour images.
6587
6588     is : ['interface']
6589
6590     get:
6591         responses :
6592             200:
6593                 body:
6594                     application/json:
6595                         schema: /
6596                             {
6597                                 "id":
6598 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
6599                                 "$schema": "http://json-schema.org/draft-04/schema#",
6600                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
6601                                 "title": "Colour Saturation",
6602                                 "definitions": {
6603                                     "oic.r.colour.saturation": {
6604                                         "type": "object",
6605                                         "properties": {
6606                                             "colourSaturation": {
6607                                                 "type": "integer",
6608                                                 "description": "The colour saturation value",
6609                                                 "minimum": 0,
6610                                                 "maximum": 100
6611                                             }
6612                                         }
6613                                     }
6614                                 },
6615                                 "type": "object",
6616                                 "allOf": [
6617                                     {"$ref": "oic.core.json#/definitions/oic.core"},
6618                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6619                                     {"$ref": "#/definitions/oic.r.colour.saturation"}
6620                                 ],
6621                                 "required": [ "colourSaturation" ]
6622                             }
6623
6624                         example: /
6625                             {
6626                                 "rt":          ["oic.r.colour.saturation"],
6627                                 "id":          "unique_example_id",
6628                                 "colourSaturation": 50
6629                             }
6630
6631     post:
6632         body:
6633             application/json:
6634                 schema: /
6635                     {
6636                         "id":
6637 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
6638                         "$schema": "http://json-schema.org/draft-04/schema#",
6639                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
reserved.",
6640                         "title": "Colour Saturation",
6641                         "definitions": {
6642                             "oic.r.colour.saturation": {
6643                                 "type": "object",
6644                                 "properties": {
6645                                     "colourSaturation": {
6646                                         "type": "integer",
6647                                         "description": "The colour saturation value",
6648                                         "minimum": 0,
6649                                         "maximum": 100
6650

```

```

6651         }
6652     }
6653 }
6654 },
6655 "type": "object",
6656 "allOf": [
6657     {"$ref": "oic.core.json#/definitions/oic.core"},
6658     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6659     {"$ref": "#/definitions/oic.r.colour.saturation"}
6660 ],
6661 "required": [ "colourSaturation" ]
6662 }
6663
6664 example: /
6665 {
6666     "id": "unique_example_id",
6667     "colourSaturation": 60
6668 }
6669
6670 responses :
6671     200:
6672         body:
6673             application/json:
6674                 schema: /
6675                     {
6676                         "id":
6677 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
6678 "$schema": "http://json-schema.org/draft-04/schema#",
6679 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6680 rights reserved.",
6681 "title": "Colour Saturation",
6682 "definitions": {
6683     "oic.r.colour.saturation": {
6684         "type": "object",
6685         "properties": {
6686             "colourSaturation": {
6687                 "type": "integer",
6688                 "description": "The colour saturation value",
6689                 "minimum": 0,
6690                 "maximum": 100
6691             }
6692         }
6693     },
6694 },
6695 "type": "object",
6696 "allOf": [
6697     {"$ref": "oic.core.json#/definitions/oic.core"},
6698     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6699     {"$ref": "#/definitions/oic.r.colour.saturation"}
6700 ],
6701 "required": [ "colourSaturation" ]
6702 }
6703
6704 example: /
6705 {
6706     "id": "unique_example_id",
6707     "colourSaturation": 60
6708 }
6709

```

6.32.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
colourSaturation	integer	yes		The colour saturation value

6711 6.32.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ColourSaturationResURI		get	post		

6712 6.33 Contact Sensor

6713 6.33.1 Introduction

6714 This resource describes whether a contact sensor has been tripped or not. Typical use case is in
6715 Security Systems detecting window or door open. The value is a boolean. A value of 'true' means
6716 that contact has been broken (open). A value of 'false' means that contact is in place (closed).

6717 6.33.2 Example URI

6718 /ContactResURI

6719 6.33.3 Resource Type

6720 The resource type (rt) is defined as: oic.r.sensor.contact.

6721 6.33.4 RAML Definition

```
6722 #%RAML 0.8
6723 title: OICContactSensor
6724 version: v1.1.0-20160519
6725 traits:
6726   - interface :
6727     queryParameters:
6728       if:
6729         enum: ["oic.if.s", "oic.if.baseline"]
6730
6731 /ContactResURI:
6732   description: |
6733     This resource describes whether a contact sensor has been tripped or not.
6734     Typical use case is in Security Systems detecting window or door open.
6735     The value is a boolean.
6736     A value of 'true' means that contact has been broken (open).
6737     A value of 'false' means that contact is in place (closed).
6738
6739   is : ['interface']
6740   get:
6741     responses :
6742       200:
6743         body:
6744           application/json:
6745             schema: /
6746               {
6747                 "id":
6748                   "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.contact.json#",
6749                 "$schema": "http://json-schema.org/draft-04/schema#",
6750                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6751 rights reserved.",
6752                 "title": "Contact Sensor",
6753                 "definitions": {
6754                   "oic.r.sensor.contact": {
6755                     "allOf": [
6756                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
6757                     ]
6758                   }
6759                 },
6760                 "type": "object",
6761                 "allOf": [
6762                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6763                   {"$ref": "#/definitions/oic.r.sensor.contact"}
6764                 ]
6765               }
```

```

6764         ],
6765         "required": ["value"]
6766     }
6767
6768     example: /
6769     {
6770         "rt":      ["oic.r.sensor.contact"],
6771         "id":      "unique_example_id",
6772         "value":   true
6773     }
6774

```

6775 6.33.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

6776 6.33.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ContactResURI		get			

6777 6.34 Demand Response Load Control (DRLC).

6778 6.34.1 Introduction

6779 This resource describes any to be applied or currently being applied DRLC signal. The DRType is
6780 the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0. Start is a string
6781 containing an ISO8601 encoded start time. The duration value is in minutes. Override indicates
6782 whether the consumer has overridden the request (true) or not (false).

6783 6.34.2 Example URI

6784 /DRLCResURI

6785 6.34.3 Resource Type

6786 The resource type (rt) is defined as: oic.r.energy.drlc.

6787 6.34.4 RAML Definition

```

6788 #%RAML 0.8
6789 title: OICDRLC
6790 version: v1.1.0-20160519
6791 traits:
6792   - interface :
6793       queryParameters:
6794           if:
6795               enum: ["oic.if.b", "oic.if.baseline"]
6796
6797 /DRLCResURI:
6798   description: |
6799       This resource describes any to be applied or currently being applied DRLC signal.
6800       The DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0.
6801       Start is a string containing an ISO8601 encoded start time.
6802       The duration value is in minutes.
6803       Override indicates whether the consumer has overridden the request (true) or not (false).
6804
6805   is : ['interface']
6806   get:
6807       description: |
6808           Provides the current DRLC action that is being applied.
6809

```

```

6810     responses :
6811         200:
6812             body:
6813                 application/json:
6814                     schema: /
6815                         {
6816                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlic.json#",
6817                             "$schema": "http://json-schema.org/draft-04/schema#",
6818                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6819 rights reserved.",
6820                             "definitions": {
6821                                 "oic.r.energy.drlic": {
6822                                     "type": "object",
6823                                     "properties": {
6824                                         "DRType": {
6825                                             "type": "integer",
6826                                             "description": "The to be applied demand-response type"
6827                                         },
6828                                         "start": {
6829                                             "type": "string",
6830                                             "description": "The start time for the application of DR"
6831                                         },
6832                                         "duration": {
6833                                             "type": "integer",
6834                                             "description": "The duration of the to be applied DR type"
6835                                         },
6836                                         "override": {
6837                                             "type": "boolean",
6838                                             "description": "Whether the consumer has overridden the application of DR"
6839                                         }
6840                                     }
6841                                 },
6842                                 "type": "object",
6843                                 "allOf": [
6844                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6845                                     {"$ref": "#/definitions/oic.r.energy.drlic"}
6846                                 ],
6847                                 "required": ["DRType"]
6848                             }
6849                         }
6850
6851                     example: /
6852                         {
6853                             "rt": ["oic.r.energy.drlic"],
6854                             "id": "unique_example_id",
6855                             "DRType": 1,
6856                             "start": "2015-01-09T16:45Z",
6857                             "duration": 10,
6858                             "override": false
6859                         }
6860
6861         put:
6862             description: |
6863                 Provides the DRIC action to be applied to the device or updates an existing action.
6864
6865             body:
6866                 application/json:
6867                     schema: /
6868                         {
6869                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlic.json#",
6870                             "$schema": "http://json-schema.org/draft-04/schema#",
6871                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6872 reserved.",
6873                             "definitions": {
6874                                 "oic.r.energy.drlic": {

```

```

6875         "type": "object",
6876         "properties": {
6877             "DRType": {
6878                 "type": "integer",
6879                 "description": "The to be applied demand-response type"
6880             },
6881             "start": {
6882                 "type": "string",
6883                 "description": "The start time for the application of DR"
6884             },
6885             "duration": {
6886                 "type": "integer",
6887                 "description": "The duration of the to be applied DR type"
6888             },
6889             "override": {
6890                 "type": "boolean",
6891                 "description": "Whether the consumer has overridden the application of DR"
6892             }
6893         }
6894     },
6895     "type": "object",
6896     "allOf": [
6897         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6898         {"$ref": "#/definitions/oic.r.energy.drlc"}
6899     ],
6900     "required": ["DRType"]
6901 }
6902
6903
6904 example: /
6905 {
6906     "rt":         ["oic.r.energy.drlc"],
6907     "id":         "unique_example_id",
6908     "DRType":    1,
6909     "start":     "2015-01-09T16:45Z",
6910     "duration":  10
6911 }
6912
6913 responses :
6914 200:
6915     description: |
6916         Indicates that the target DRLC resource was changed.
6917         The new resource attributes are provided in the response.
6918
6919     body:
6920     application/json:
6921         schema: /
6922             {
6923                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlc.json#",
6924                 "$schema": "http://json-schema.org/draft-04/schema#",
6925                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6926 rights reserved.",
6927                 "definitions": {
6928                     "oic.r.energy.drlc": {
6929                         "type": "object",
6930                         "properties": {
6931                             "DRType": {
6932                                 "type": "integer",
6933                                 "description": "The to be applied demand-response type"
6934                             },
6935                             "start": {
6936                                 "type": "string",
6937                                 "description": "The start time for the application of DR"
6938                             },
6939                             "duration": {
6940                                 "type": "integer",
6941                                 "description": "The duration of the to be applied DR type"

```

```

6942         },
6943         "override": {
6944             "type": "boolean",
6945             "description": "Whether the consumer has overridden the application of DR"
6946         }
6947     }
6948 }
6949 },
6950 "type": "object",
6951 "allOf": [
6952     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6953     {"$ref": "#/definitions/oic.r.energy.drlc"}
6954 ],
6955 "required": ["DRType"]
6956 }
6957

```

```

6958 example: /
6959 {
6960     "DRType": 1,
6961     "id": "unique_example_id",
6962     "start": "2015-01-09T17:00Z",
6963     "duration": 15,
6964     "override": false
6965 }
6966

```

6967 **201:**

```

6968     description: |
6969         Indicates successful creation of the DRLC resource with the attributes provided.
6970         The response includes the URI of the created resource.
6971

```

```

6972     body:
6973         application/json:

```

```

6974         schema: /
6975         {
6976             "id": "http://openinterconnect.org/iotdatamodels/chemas/oic.create.json#",
6977             "$schema": "http://json-schema.org/draft-04/schema#",
6978             "description" : "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights
6979 reserved.",
6980             "definitions": {
6981                 "oic.create": {
6982                     "type": "object",
6983                     "properties": {
6984                         "ResURI": { "type": "string"}
6985                     }
6986                 }
6987             },
6988             "type": "object",
6989             "allOf": [
6990                 {"$ref": "#/definitions/oic.create"}
6991             ]
6992         }
6993

```

```

6994     example: /
6995     {
6996         "ResURI": "/MyDevice/MyDRLCURI"
6997     }
6998

```

6999 6.34.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
DRType	integer	yes		The to be applied demand-response type

start	string			The start time for the application of DR
duration	integer			The duration of the to be applied DR type
override	boolean			Whether the consumer has overridden the application of DR

7000 **6.34.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DRLCResURI	put	get			

7001 **6.35 Energy Overload/Circuit Breaker**

7002 **6.35.1 Introduction**

7003 This resource describes whether an energy overload detector/circuit breaker is currently tripped.
7004 The value is a boolean. A value of 'true' means that energy overload has been tripped. A value of
7005 'false' means that energy overload has not been tripped.

7006 **6.35.2 Example URI**

7007 /EnergyOverloadResURI

7008 **6.35.3 Resource Type**

7009 The resource type (rt) is defined as: oic.r.energy.overload.

7010 **6.35.4 RAML Definition**

```

7011 #%RAML 0.8
7012 title: OICEnergyOverload
7013 version: v1.1.0-20160519
7014 traits:
7015   - interface :
7016       queryParameters:
7017         if:
7018           enum: ["oic.if.s", "oic.if.baseline"]
7019
7020 /EnergyOverloadResURI:
7021   description: |
7022     This resource describes whether an energy overload detector/circuit breaker
7023     is currently tripped.
7024     The value is a boolean.
7025     A value of 'true' means that energy overload has been tripped.
7026     A value of 'false' means that energy overload has not been tripped.
7027
7028   is : ['interface']
7029   get:
7030     responses :
7031       200:
7032         body:
7033           application/json:
7034             schema: /
7035               {
7036                 "id":
7037                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.overload.json#",
7038                 "$schema": "http://json-schema.org/draft-04/schema#",

```



```

7039         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7040 rights reserved.",
7041         "title": "Energy Overload Sensor",
7042         "definitions": {
7043             "oic.r.energy.overload": {
7044                 "allOf": [
7045                     {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
7046                 ]
7047             }
7048         },
7049         "type": "object",
7050         "allOf": [
7051             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7052             {"$ref": "#/definitions/oic.r.energy.overload"}
7053         ],
7054         "required": ["value"]
7055     }
7056
7057     example: /
7058     {
7059         "rt":      ["oic.r.energy.overload"],
7060         "id":      "unique_example_id",
7061         "value": true
7062     }
7063

```

7064 6.35.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

7065 6.35.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyOverloadResURI		get			

7066 6.36 Generic Sensor

7067 6.36.1 Introduction

7068 This resource describes whether some value or property or entity has been sensed or not. The
7069 value is a boolean. A value of 'true' means that the target has been sensed. A value of 'false'
7070 means that the target has not been sensed.

7071 6.36.2 Example URI

7072 /GenericSensorResURI

7073 6.36.3 Resource Type

7074 The resource type (rt) is defined as: oic.r.sensor.

7075 6.36.4 RAML Definition

```

7076 #%RAML 0.8
7077 title: OICGenericSensor
7078 version: v1.1.0-20160519
7079 traits:
7080   - interface :
7081       queryParameters:
7082           if:
7083               enum: ["oic.if.s", "oic.if.baseline"]
7084
7085 /GenericSensorResURI:
7086   description: |

```

7087 This resource describes whether some value or property or entity has been sensed or not.
 7088 The value is a boolean.
 7089 A value of 'true' means that the target has been sensed.
 7090 A value of 'false' means that the target has not been sensed.
 7091

```

7092 is : ['interface']
7093 get:
7094   responses :
7095     200:
7096       body:
7097         application/json:
7098           schema: /
7099             {
7100               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.json#",
7101               "$schema": "http://json-schema.org/draft-04/schema#",
7102               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7103 rights reserved.",
7104               "title": "Generic Sensor",
7105               "definitions": {
7106                 "oic.r.sensor": {
7107                   "type": "object",
7108                   "properties": {
7109                     "value": {
7110                       "type": "boolean",
7111                       "readOnly": true,
7112                       "description": "true = sensed, false = not sensed."
7113                     }
7114                   }
7115                 }
7116               },
7117               "type": "object",
7118               "allOf": [
7119                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7120                 {"$ref": "#/definitions/oic.r.sensor"}
7121               ]
7122             }
7123
7124           example: /
7125             {
7126               "rt": ["oic.r.sensor"],
7127               "id": "unique_example_id",
7128               "value": true
7129             }
7130
  
```

7131 **6.36.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	boolean		Read Only	true = sensed, false = not sensed.

7132 **6.36.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GenericSensorResURI		get			

7133 **6.37 Glass Break Sensor**

7134 **6.37.1 Introduction**

7135 This resource describes a glass break sensor. The value is a boolean. A value of 'true' means that
 7136 glass break has been sensed. A value of 'false' means that glass break not been sensed.

7137 **6.37.2 Example URI**

7138 /GlassBreakResURI

7139 **6.37.3 Resource Type**

7140 The resource type (rt) is defined as: oic.r.sensor.glassbreak.

7141 **6.37.4 RAML Definition**

```
7142 #%RAML 0.8
7143 title: OICGlassBreakSensor
7144 version: v1.1.0-20160519
7145 traits:
7146   - interface :
7147     queryParameters:
7148       if:
7149         enum: ["oic.if.s", "oic.if.baseline"]
7150
7151 /GlassBreakResURI:
7152   description: |
7153     This resource describes a glass break sensor.
7154     The value is a boolean.
7155     A value of 'true' means that glass break has been sensed.
7156     A value of 'false' means that glass break not been sensed.
7157
7158   is : ['interface']
7159   get:
7160     responses :
7161       200:
7162         body:
7163           application/json:
7164             schema: /
7165               {
7166                 "id":
7167 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.glassBreak.json#",
7168                 "$schema": "http://json-schema.org/draft-04/schema#",
7169                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7170 rights reserved.",
7171                 "title": "Glass Break Sensor",
7172                 "definitions": {
7173                   "oic.r.sensor.glassbreak": {
7174                     "allOf": [
7175                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
7176                     ]
7177                   }
7178                 },
7179                 "type": "object",
7180                 "allOf": [
7181                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7182                   {"$ref": "#/definitions/oic.r.sensor.glassbreak"}
7183                 ],
7184                 "required": ["value"]
7185               }
7186
7187           example: /
7188             {
7189               "rt": ["oic.r.sensor.glassbreak"],
7190               "id": "unique_example_id",
7191               "value": true
7192             }
7193
```

7194 **6.37.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.
-------	---------	-----	-----------	--

7195 **6.37.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GlassBreakResURI		get			

7196 **6.38 Heart Rate Zone**

7197 **6.38.1 Introduction**

7198 This resource describes a measured heart rate by the current Zone using the Zoladz method The
7199 Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is the
7200 highest. The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3",
7201 "Zone4", "Zone5".

7202 **6.38.2 Example URI**

7203 /HeartRateZoneResURI

7204 **6.38.3 Resource Type**

7205 The resource type (rt) is defined as: oic.r.sensor.heart.zone.

7206 **6.38.4 RAML Definition**

```

7207 #%RAML 0.8
7208 title: OICHeartRateZone
7209 version: v1.1.0-20160519
7210 traits:
7211   - interface :
7212     queryParameters:
7213       if:
7214         enum: ["oic.if.s", "oic.if.baseline"]
7215
7216 /HeartRateZoneResURI:
7217   description: |
7218     This resource describes a measured heart rate by the current Zone using the Zoladz method
7219     The Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is
7220     the highest.
7221     The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3", "Zone4",
7222     "Zone5".
7223
7224   is : ['interface']
7225   get:
7226     responses :
7227       200:
7228         body:
7229           application/json:
7230             schema: /
7231               {
7232                 "id":
7233 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.heart.zone.json#",
7234                 "$schema": "http://json-schema.org/draft-04/schema#",
7235                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7236 rights reserved.",
7237                 "title": "Heart Rate Zone",
7238                 "definitions": {
7239                   "oic.r.sensor.heart.zone": {
7240                     "properties": {
7241                       "heartRateZone": {
7242                         "enum": ["Zone1", "Zone2", "Zone3", "Zone4", "Zone5"],

```

```

7243         "readOnly": true,
7244         "description": "Current heart rate zone based on the Zoladz system."
7245     }
7246 }
7247 },
7248 },
7249 "type": "object",
7250 "allOf": [
7251     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7252     {"$ref": "#/definitions/oic.r.sensor.heart.zone"}
7253 ],
7254 "required": ["heartRateZone"]
7255 }
7256
7257 example: /
7258 {
7259     "rt":          ["oic.r.sensor.heart.zone"],
7260     "id":          "unique_example_id",
7261     "heartRateZone": "Zone3"
7262 }
7263

```

7264 6.38.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
heartRateZone	multiple types: see schema	yes	Read Only	Current heart rate zone based on the Zoladz system.

7265 6.38.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/HeartRateZoneResURI		get			

7266 6.39 Illuminance Sensor

7267 6.39.1 Introduction

7268 This resource describes an illuminance sensor. Illuminance is a float and represents the sensed
7269 luminous flux per unit area in lux.

7270 6.39.2 Example URI

7271 /IlluminanceSensorResURI

7272 6.39.3 Resource Type

7273 The resource type (rt) is defined as: oic.r.sensor.illuminance.

7274 6.39.4 RAML Definition

```

7275 #%RAML 0.8
7276 title: OICilluminanceSensor
7277 version: v1.1.0-20160519
7278 traits:
7279   - interface :
7280       queryParameters:
7281           if:
7282               enum: ["oic.if.s", "oic.if.baseline"]
7283
7284 /IlluminanceSensorResURI:
7285     description: |
7286       This resource describes an illuminance sensor.
7287       Illuminance is a float and represents the sensed luminous flux per unit area in lux.
7288

```

```

7289   is : ['interface']
7290   get:
7291     responses :
7292       200:
7293         body:
7294           application/json:
7295             schema: /
7296               {
7297                 "id":
7298 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.illuminance.json#",
7299                 "$schema": "http://json-schema.org/draft-04/schema#",
7300                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7301 rights reserved.",
7302                 "title": "Illuminance Sensor",
7303                 "definitions": {
7304                   "oic.r.sensor.illuminance": {
7305                     "properties": {
7306                       "illuminance": {
7307                         "type": "number",
7308                         "readOnly": true,
7309                         "description": "Sensed luminous flux per unit area in lux."
7310                       }
7311                     }
7312                   }
7313                 },
7314                 "type": "object",
7315                 "allOf": [
7316                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7317                   {"$ref": "#/definitions/oic.r.sensor.illuminance"}
7318                 ],
7319                 "required": ["illuminance"]
7320               }
7321
7322           example: /
7323             {
7324               "rt":           ["oic.r.sensor.illuminance"],
7325               "id":           "unique_example_id",
7326               "illuminance": 450.0
7327             }
7328

```

7329 6.39.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
illuminance	number	yes	Read Only	Sensed luminous flux per unit area in lux.

7330 6.39.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/IlluminanceSensorResURI		get			

7331 6.40 Magnetic Field Direction Sensor

7332 6.40.1 Introduction

7333 This resource describes the direction of the Earth's magnetic field at the observer's current point
7334 in space. Typical use case includes measurement of compass readings on a personal device. The
7335 value is an array containing Hx, Hy, Hz (in that order) each of which are floats. Each of Hx, Hy and
7336 Hz are expressed in A/m (Amperes per metre)

7337 6.40.2 Example URI

7338 /MagneticFieldDirectionResURI

7339 6.40.3 Resource Type

7340 The resource type (rt) is defined as: oic.r.sensor.magneticfielddirection.

7341 6.40.4 RAML Definition

```
7342 #%RAML 0.8
7343 title: OICMagneticFieldDirection
7344 version: v1.1.0-20160519
7345 traits:
7346   - interface :
7347     queryParameters:
7348       if:
7349         enum: ["oic.if.s", "oic.if.baseline"]
7350
7351 /MagneticFieldDirectionResURI:
7352   description: |
7353     This resource describes the direction of the Earth's magnetic field at the observer's current
7354     point in space.
7355     Typical use case includes measurement of compass readings on a personal device.
7356     The value is an array containing Hx, Hy, Hz (in that order) each of which are floats.
7357     Each of Hx, Hy and Hz are expressed in A/m (Amperes per metre)
7358
7359   is : ['interface']
7360   get:
7361     responses :
7362       200:
7363         body:
7364           application/json:
7365             schema: /
7366               {
7367                 "id":
7368 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.magneticFieldDirection.json#",
7369                 "$schema": "http://json-schema.org/draft-04/schema#",
7370                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7371 rights reserved.",
7372                 "title": "Magnetic Field Direction Sensor",
7373                 "definitions": {
7374                   "oic.r.sensor.magneticfielddirection": {
7375                     "properties": {
7376                       "value": {
7377                         "type": "array",
7378                         "readOnly": true,
7379                         "description": "Array containing Hx, Hy, Hz.",
7380                         "minItems": 3,
7381                         "maxItems": 3,
7382                         "items": {
7383                           "type": "number"
7384                         }
7385                       }
7386                     }
7387                   }
7388                 },
7389                 "type": "object",
7390                 "allOf": [
7391                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7392                   {"$ref": "#/definitions/oic.r.sensor.magneticfielddirection"}
7393                 ],
7394                 "required": ["value"]
7395               }
7396
7397   example: /
7398     {
7399       "rt":      ["oic.r.sensor.magneticfielddirection"],
```

```

7400         "id":      "unique_example_id",
7401         "value":   [100.0,15.0,90.0]
7402     }
7403

```

7404 6.40.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	array: see schema	yes	Read Only	Array containing Hx, Hy, Hz.

7405 6.40.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MagneticFieldDirectionResURI		get			

7406 6.41 Media

7407 6.41.1 Introduction

7408 This resource specifies the media types that an OCF Server supports. The resource is an array of
7409 media elements. Each element contains: A URL at which the specified media type can be
7410 accessed. A string array containing the definition of the media using SDP. Each entry in the
7411 sdp array is an SDP line. Each line shall follow the SDP description syntax as defined in the
7412 SDP specification. The SDP specification can be found at <http://tools.ietf.org/html/rfc4566>.

7413 6.41.2 Example URI

7414 /MediaResURI

7415 6.41.3 Resource Type

7416 The resource type (rt) is defined as: oic.r.media.

7417 6.41.4 RAML Definition

```

7418 #%RAML 0.8
7419 title: OICMedia
7420 version: v1.1.0-20160519
7421 traits:
7422   - interface :
7423       queryParameters:
7424         if:
7425           enum: ["oic.if.s", "oic.if.baseline"]
7426
7427 /MediaResURI:
7428   description: |
7429     This resource specifies the media types that an OCF Server supports.
7430     The resource is an array of media elements
7431     Each element contains:
7432       A URL at which the specified media type can be accessed.
7433       A string array containing the definition of the media using SDP.
7434       Each entry in the sdp array is an SDP line.
7435       Each line shall follow the SDP description syntax as defined in the SDP specification.
7436       The SDP specification can be found at http://tools.ietf.org/html/rfc4566.
7437
7438   is : ['interface']
7439   get:
7440     description: |
7441       Retrieves the current media resource.
7442
7443   responses :
7444     200:
7445       body:
7446         application/json:

```



```

7447     schema: /
7448     {
7449         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.media.json#",
7450         "$schema": "http://json-schema.org/draft-04/schema#",
7451         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7452 rights reserved.",
7453         "title": "Media",
7454         "definitions": {
7455             "oic.r.media": {
7456                 "properties": {
7457                     "media": {
7458                         "type": "array",
7459                         "items": {
7460                             "type": "object",
7461                             "properties": {
7462                                 "url": {
7463                                     "type": "string",
7464                                     "description": "url for the media instance"
7465                                 },
7466                                 "sdp": {
7467                                     "type": "array",
7468                                     "description": "Array of strings, one per SDP line",
7469                                     "items": {
7470                                         "type": "string",
7471                                         "description": "SDP media or attribute line"
7472                                     }
7473                                 }
7474                             }
7475                         }
7476                     }
7477                 }
7478             },
7479             "type": "object",
7480             "allOf": [
7481                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7482                 {"$ref": "#/definitions/oic.r.media"}
7483             ],
7484             "required": ["media"]
7485         }
7486     }
7487
7488     example: /
7489     {
7490         "rt": ["oic.r.media"],
7491         "id": "unique_example_id",
7492         "media": [
7493             {
7494                 "url": "some example url",
7495                 "sdp": [
7496                     "m=video 1 RTP/AVP 96",
7497                     "a=rtpmap:96 H264/9000",
7498                     "a=fmtp:96 profile-level-id=42A028;packetization-mode=1"
7499                 ]
7500             },
7501             {
7502                 "url": "some other example1 url",
7503                 "sdp": [
7504                     "m=audio 2 RTP/AVP 97",
7505                     "a=rtpmap:97 MP4A-LATM/90000"
7506                 ]
7507             },
7508             {
7509                 "url": "some other example2 url",
7510                 "sdp": [
7511                     "m=video 3 RTP/AVP 98",
7512                     "a=rtpmap:98 jpeg/90000",
7513                     "a=fmtp:98 sampling=YCbCr-4:2:0;width=256;height=256"
7514                 ]
7515             }
7516         ]
7517     }

```

```

7516     ]
7517     }
7518

```

7519 6.41.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
media	array: see schema	yes		
url (media)	string			url for the media instance
sdp (media)	array: see schema			Array of strings, one per SDP line

7520 6.41.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MediaResURI		get			

7521 6.42 Media Source

7522 6.42.1 Introduction

7523 This resource defines a media source that exists on a device. The source can be an input source
7524 or output source, this resource is agnostic of that. The sourceName specifies a pre-defined media
7525 input or output (e.g."HDMI", "DVI") The sourceNumber is a numeric identifier to specify the
7526 instance (e.g. "PC", 1) The sourceType is an enumeration defining whether the source is audio,
7527 video or both. The status is a boolean that determines if the specific source instance is selected
7528 or not. A status of true means that the source instance is selected. A status of false means
7529 that the source instance is not selected.

7530 6.42.2 Example URI

7531 /mediaSourceResURI

7532 6.42.3 Resource Type

7533 The resource type (rt) is defined as: oic.r.mediasource.

7534 6.42.4 RAML Definition

```

7535 #%RAML 0.8
7536 title: OIC Media Source
7537 version: v1.1.0-20160519
7538 traits:
7539   - interface :
7540     queryParameters:
7541       if:
7542         enum: ["oic.if.a", "oic.if.baseline"]
7543
7544 /mediaSourceResURI:
7545   description: |
7546     This resource defines a media source that exists on a device.
7547     The source can be an input source or output source, this resource is agnostic of that.
7548     The sourceName specifies a pre-defined media input or output (e.g."HDMI", "DVI")
7549     The sourceNumber is a numeric identifier to specify the instance (e.g
7550     "PC", 1)
7551     The sourceType is an enumeration defining whether the source is audio, video or both.
7552     The status is a boolean that determines if the specific source instance is selected or not.
7553     A status of true means that the source instance is selected.
7554     A status of false means that the source instance is not selected.
7555
7556   is : ['interface']
7557   get:
7558     responses :

```

```

7559     200:
7560     body:
7561         application/json:
7562             schema: /
7563                 {
7564                     "$schema": "http://json-schema.org/draft-04/schema#",
7565                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7566 rights reserved.",
7567                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediasource.json#",
7568                     "title": "Media Source",
7569                     "definitions": {
7570                         "oic.r.mediasource": {
7571                             "properties": {
7572                                 "sourceName": {
7573                                     "type": "string",
7574                                     "description": "Specifies a pre-defined media input or output"
7575                                 },
7576                                 "sourceNumber": {
7577                                     "type": [ "integer", "string" ],
7578                                     "readOnly": true,
7579                                     "description": "Numeric identifier to specify the instance"
7580                                 },
7581                                 "sourceType": {
7582                                     "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7583                                     "readOnly": true,
7584                                     "description": "Specifies the type of the source"
7585                                 },
7586                                 "status": {
7587                                     "type": "boolean",
7588                                     "description": "Specifies if the specific source instance is selected or
7589 not"
7590                                 }
7591                             }
7592                         }
7593                     },
7594                     "type": "object",
7595                     "allOf": [
7596                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7597                         { "$ref": "#/definitions/oic.r.mediasource" }
7598                     ],
7599                     "required": [ "sourceName", "status" ]
7600                 }
7601
7602             example: /
7603                 {
7604                     "rt": [ "oic.r.mediasource" ],
7605                     "id": "unique_example_id",
7606                     "sourceName": "HDMI-CEC",
7607                     "sourceNumber": "1",
7608                     "sourceType": "audioPlusVideo",
7609                     "status": true
7610                 }
7611
7612     post:
7613         description: |
7614             Changes the status of the source.
7615             Allows changes of the sourceName and the status.
7616
7617         body:
7618             application/json:
7619                 schema: /
7620                     {
7621                         "$schema": "http://json-schema.org/draft-04/schema#",
7622                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7623 reserved.",

```

```

7624     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
7625     "title": "Media Source",
7626     "definitions": {
7627         "oic.r.mediasource": {
7628             "properties": {
7629                 "sourceName": {
7630                     "type": "string",
7631                     "description": "Specifies a pre-defined media input or output"
7632                 },
7633                 "sourceNumber": {
7634                     "type": [ "integer", "string" ],
7635                     "readOnly": true,
7636                     "description": "Numeric identifier to specify the instance"
7637                 },
7638                 "sourceType": {
7639                     "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7640                     "readOnly": true,
7641                     "description": "Specifies the type of the source"
7642                 },
7643                 "status": {
7644                     "type": "boolean",
7645                     "description": "Specifies if the specific source instance is selected or not"
7646                 }
7647             }
7648         },
7649     },
7650     "type": "object",
7651     "allOf": [
7652         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7653         { "$ref": "#/definitions/oic.r.mediasource" }
7654     ],
7655     "required": [ "sourceName", "status" ]
7656 }
7657
7658 example: /
7659 {
7660     "id": "unique_example_id",
7661     "sourceName": "my new name",
7662     "sourceNumber": "1",
7663     "status": true
7664 }
7665
7666 responses :
7667 200:
7668   body:
7669     application/json:
7670       schema: /
7671         {
7672           "$schema": "http://json-schema.org/draft-04/schema#",
7673           "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7674 rights reserved.",
7675           "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
7676           "title": "Media Source",
7677           "definitions": {
7678             "oic.r.mediasource": {
7679               "properties": {
7680                 "sourceName": {
7681                     "type": "string",
7682                     "description": "Specifies a pre-defined media input or output"
7683                 },
7684                 "sourceNumber": {
7685                     "type": [ "integer", "string" ],
7686                     "readOnly": true,
7687                     "description": "Numeric identifier to specify the instance"
7688                 },
7689                 "sourceType": {
7690                     "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],

```

```

7691         "readOnly": true,
7692         "description": "Specifies the type of the source"
7693     },
7694     "status": {
7695         "type": "boolean",
7696         "description": "Specifies if the specific source instance is selected or
not"
7697     }
7698 }
7699 }
7700 }
7701 },
7702 "type": "object",
7703 "allOf": [
7704     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7705     {"$ref": "#/definitions/oic.r.mediasource"}
7706 ],
7707 "required": ["sourceName", "status"]
7708 }
7709
7710 example: /
7711 {
7712     "id": "unique_example_id",
7713     "sourceName": "my new name",
7714     "sourceNumber": "1",
7715     "status": true
7716 }
7717

```

7718 6.42.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sourceName	string	yes		Specifies a pre-defined media input or output
status	boolean	yes		Specifies if the specific source instance is selected or not
sourceNumber	[u'integer', u'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source

7719 6.42.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceResURI		get	post		

7720 6.43 Media Source List

7721 6.43.1 Introduction

7722 This resource provides the list of media sources available on the device. The sources are an array
7723 of mediaSource(s) as separately defined. The basic resource type oic.r.mediaSourceList does not
7724 provide any indications whether the source is input or output. Hence, two specializations of this
7725 resource exist. When a device exposes input sources then an instance of this resource with a
7726 resource type of oic.r.media.input is exposed. When a device exposes output sources then an
7727 instance of this resource with a resource type of oic.r.media.output is exposed. A device that
7728 exposes both input and output media sources then exposes two instances of this resource, one
7729 with a resource type of oic.r.media.input and one with a resource type of oic.r.media.output

```

7730 6.43.2 Example URI
7731 /mediaSourceListResURI
7732 6.43.3 Resource Type
7733 The resource type (rt) is defined as: oic.r.mediasourcelist.
7734 6.43.4 RAML Definition
7735 #%RAML 0.8
7736 title: OICMediaSourceList
7737 version: v1.1.0-20160519
7738 traits:
7739   - interface :
7740       queryParameters:
7741           if:
7742               enum: ["oic.if.a", "oic.if.baseline"]
7743
7744 /mediaSourceListResURI:
7745     description: |
7746       This resource provides the list of media sources available on the device.
7747       The sources are an array of mediaSource(s) as separately defined.
7748       The basic resource type oic.r.mediaSourceList does not provide any indications whether the
7749       source is input or output.
7750       Hence, two specializations of this resource exist.
7751       When a device exposes input sources then an instance of this resource with a resource type of
7752       oic.r.media.input is exposed.
7753       When a device exposes output sources then an instance of this resource with a resource type of
7754       oic.r.media.output is exposed.
7755       A device that exposes both input and output media sources then exposes two instances of this
7756       resource,
7757       one with a resource type of oic.r.media.input and one with a resource type of
7758       oic.r.media.output
7759
7760     is : ['interface']
7761     get:
7762       responses :
7763         200:
7764           body:
7765             application/json:
7766               schema: /
7767                 {
7768                   "$schema": "http://json-schema.org/draft-04/schema#",
7769                   "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7770                   rights reserved.",
7771                   "id":
7772                   "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7773                   "title": "Media Source List",
7774                   "definitions": {
7775                     "oic.r.mediasourcelist": {
7776                       "properties": {
7777                         "sources": {
7778                           "type": "array",
7779                           "items": {
7780                             "oneOf": [
7781                               { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7782                             ]
7783                           }
7784                         }
7785                       }
7786                     }
7787                   },
7788                   "type": "object",
7789                   "allOf": [

```

```

7790         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7791         { "$ref": "#/definitions/oic.r.mediasourcelist" }
7792     ],
7793     "required": ["sources"]
7794 }
7795
7796 example: /
7797     {
7798         "rt": ["oic.r.mediasourcelist"],
7799         "id": "unique_example_id",
7800         "sources": [
7801             {
7802                 "sourceName": "HDMI-CEC",
7803                 "sourceNumber": "1",
7804                 "sourceType": "audioPlusVideo",
7805                 "status": true
7806             },
7807             {
7808                 "sourceName": "dualRCA",
7809                 "sourceNumber": "1",
7810                 "sourceType": "audioOnly",
7811                 "status": false
7812             }
7813         ]
7814     }
7815
7816 post:
7817     description: |
7818         Changes the status of the source(s).
7819         Allows changes of the sourceName and the status.
7820
7821     body:
7822         application/json:
7823             schema: /
7824                 {
7825                     "$schema": "http://json-schema.org/draft-04/schema#",
7826                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7827 reserved.",
7828                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7829                     "title": "Media Source List",
7830                     "definitions": {
7831                         "oic.r.mediasourcelist": {
7832                             "properties": {
7833                                 "sources": {
7834                                     "type": "array",
7835                                     "items": {
7836                                         "oneOf": [
7837                                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
7838                                         ]
7839                                     }
7840                                 }
7841                             }
7842                         }
7843                     },
7844                     "type": "object",
7845                     "allOf": [
7846                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7847                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
7848                     ],
7849                     "required": ["sources"]
7850                 }
7851
7852 example: /
7853     {
7854         "id": "unique_example_id",
7855         "sources": [

```

```

7856     {
7857         "sourceName": "my new name",
7858         "sourceNumber": "1",
7859         "status": true
7860     }
7861 ]
7862 }
7863
7864 responses :
7865 200:
7866     body:
7867     application/json:
7868         schema: /
7869         {
7870             "$schema": "http://json-schema.org/draft-04/schema#",
7871             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
7872             "id":
7873             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7874             "title": "Media Source List",
7875             "definitions": {
7876                 "oic.r.mediasourcelist": {
7877                     "properties": {
7878                         "sources": {
7879                             "type": "array",
7880                             "items": {
7881                                 "oneOf": [
7882                                     { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
7883                                 ]
7884                             }
7885                         }
7886                     }
7887                 }
7888             },
7889             "type": "object",
7890             "allOf": [
7891                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7892                 { "$ref": "#/definitions/oic.r.mediasourcelist" }
7893             ],
7894             "required": ["sources"]
7895         }
7896     }
7897
7898     example: /
7899     {
7900         "id": "unique_example_id",
7901         "sources": [
7902             {
7903                 "sourceName": "my new name",
7904                 "sourceNumber": "1",
7905                 "status": true
7906             }
7907         ]
7908     }
7909
7910

```

6.43.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		
sourceName	string	yes		Specifies a pre-defined media input or output
status	boolean	yes		Specifies if the specific source

				instance is selected or not
sourceNumber	[u'integer', u'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source

7911 **6.43.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/mediaSourceListResURI		get	post		

7912 **6.43.7 Referenced JSON schemas**

7913 **6.43.7.1 oic.r.mediaSource.json**

```

7914 {
7915   "$schema": "http://json-schema.org/draft-04/schema#",
7916   "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7917 reserved.",
7918   "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
7919   "title": "Media Source",
7920   "definitions": {
7921     "oic.r.mediasource": {
7922       "properties": {
7923         "sourceName": {
7924           "type": "string",
7925           "description": "Specifies a pre-defined media input or output"
7926         },
7927         "sourceNumber": {
7928           "type": [ "integer", "string" ],
7929           "readOnly": true,
7930           "description": "Numeric identifier to specify the instance"
7931         },
7932         "sourceType": {
7933           "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7934           "readOnly": true,
7935           "description": "Specifies the type of the source"
7936         },
7937         "status": {
7938           "type": "boolean",
7939           "description": "Specifies if the specific source instance is selected or not"
7940         }
7941       }
7942     }
7943   },
7944   "type": "object",
7945   "allOf": [
7946     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7947     { "$ref": "#/definitions/oic.r.mediasource" }
7948   ],
7949   "required": [ "sourceName", "status" ]
7950 }
7951

```

7952 **6.44 Media Source Input**

7953 **6.44.1 Introduction**

7954 This resource provides the list of input media sources available on the device. The sources are an
7955 array of mediaSource(s) as separately defined.

7956 **6.44.2 Example URI**

7957 /mediaSourceInputResURI

7958 6.44.3 Resource Type

7959 The resource type (rt) is defined as: oic.r.media.input.

7960 6.44.4 RAML Definition

```
7961 #%RAML 0.8
7962 title: OICMediaSourceInput
7963 version: v1.1.0-20160519
7964 traits:
7965   - interface :
7966     queryParameters:
7967       if:
7968         enum: ["oic.if.a", "oic.if.baseline"]
7969
7970 /mediaSourceInputResURI:
7971   description: |
7972     This resource provides the list of input media sources available on the device.
7973     The sources are an array of mediaSource(s) as separately defined.
7974
7975   is : ['interface']
7976   get:
7977     responses :
7978       200:
7979         body:
7980           application/json:
7981             schema: /
7982               {
7983                 "$schema": "http://json-schema.org/draft-04/schema#",
7984                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7985 rights reserved.",
7986                 "id":
7987 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7988                 "title": "Media Source List",
7989                 "definitions": {
7990                   "oic.r.mediasourcelist": {
7991                     "properties": {
7992                       "sources": {
7993                         "type": "array",
7994                         "items": {
7995                           "oneOf": [
7996                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7997                           ]
7998                         }
7999                       }
8000                     }
8001                   }
8002                 },
8003                 "type": "object",
8004                 "allOf": [
8005                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8006                   { "$ref": "#/definitions/oic.r.mediasourcelist" }
8007                 ],
8008                 "required": ["sources"]
8009               }
8010
8011   example: /
8012     {
8013       "rt": ["oic.r.media.input"],
8014       "id": "unique_example_id",
8015       "sources": [
8016         {
8017           "sourceName": "HDMI-CEC",
8018           "sourceNumber": "1",
```

```

8019         "sourceType": "audioPlusVideo",
8020         "status": true
8021     },
8022     {
8023         "sourceName": "dualRCA",
8024         "sourceNumber": "1",
8025         "sourceType": "audioOnly",
8026         "status": false
8027     }
8028 ]
8029 }
8030
8031 post:
8032     description: |
8033         Changes the status of the source(s).
8034         Allows changes of the sourceName and the status.
8035
8036     body:
8037         application/json:
8038             schema: /
8039                 {
8040                     "$schema": "http://json-schema.org/draft-04/schema#",
8041                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8042 reserved.",
8043                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8044                     "title": "Media Source List",
8045                     "definitions": {
8046                         "oic.r.mediasourcelist": {
8047                             "properties": {
8048                                 "sources": {
8049                                     "type": "array",
8050                                     "items": {
8051                                         "oneOf": [
8052                                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
8053                                         ]
8054                                     }
8055                                 }
8056                             }
8057                         },
8058                     },
8059                     "type": "object",
8060                     "allOf": [
8061                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8062                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
8063                     ],
8064                     "required": ["sources"]
8065                 }
8066
8067     example: /
8068         {
8069             "id": "unique_example_id",
8070             "sources": [
8071                 {
8072                     "sourceName": "my new name",
8073                     "sourceNumber": "1",
8074                     "status": true
8075                 }
8076             ]
8077         }
8078
8079     responses :
8080         200:
8081             body:
8082                 application/json:
8083                     schema: /

```

```

8084     {
8085         "$schema": "http://json-schema.org/draft-04/schema#",
8086         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
8087         "id":
8088         "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8089         "title": "Media Source List",
8090         "definitions": {
8091             "oic.r.mediasourcelist": {
8092                 "properties": {
8093                     "sources": {
8094                         "type": "array",
8095                         "items": {
8096                             "oneOf": [
8097                                 { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
8098                             ]
8099                         }
8100                     }
8101                 }
8102             }
8103         },
8104         "type": "object",
8105         "allOf": [
8106             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8107             { "$ref": "#/definitions/oic.r.mediasourcelist" }
8108         ],
8109         "required": ["sources"]
8110     }
8111 }
8112

```

```

8113 example: /
8114 {
8115     "id": "unique_example_id",
8116     "sources": [
8117         {
8118             "sourceName": "my new name",
8119             "sourceNumber": "1",
8120             "status": true
8121         }
8122     ]
8123 }
8124

```

8125 6.44.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		

8126 6.44.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceInputResURI		get	post		

8127 6.45 Media Source Output

8128 6.45.1 Introduction

8129 This resource provides the list of output media sources available on the device. The sources are
8130 an array of mediaSource(s) as separately defined.

8131 6.45.2 Example URI

8132 /mediaSourceOutputResURI

8133 6.45.3 Resource Type

8134 The resource type (rt) is defined as: oic.r.media.output.

8135 6.45.4 RAML Definition

8136 [#%RAML 0.8](#)

```

8137 title: OICMediaSourceOutput
8138 version: v1.1.0-20160519
8139 traits:
8140   - interface :
8141     queryParameters:
8142       if:
8143         enum: ["oic.if.a", "oic.if.baseline"]
8144
8145 /mediaSourceOutputResURI:
8146   description: |
8147     This resource provides the list of output media sources available on the device.
8148     The sources are an array of mediaSource(s) as separately defined.
8149
8150   is : ['interface']
8151   get:
8152     responses :
8153       200:
8154         body:
8155           application/json:
8156             schema: /
8157               {
8158                 "$schema": "http://json-schema.org/draft-04/schema#",
8159                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8160 rights reserved.",
8161                 "id":
8162 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8163                 "title": "Media Source List",
8164                 "definitions": {
8165                   "oic.r.mediasourcelist": {
8166                     "properties": {
8167                       "sources": {
8168                         "type": "array",
8169                         "items": {
8170                           "oneOf": [
8171                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
8172                           ]
8173                         }
8174                       }
8175                     }
8176                   }
8177                 },
8178                 "type": "object",
8179                 "allOf": [
8180                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8181                   { "$ref": "#/definitions/oic.r.mediasourcelist" }
8182                 ],
8183                 "required": ["sources"]
8184               }
8185
8186   example: /
8187     {
8188       "rt": ["oic.r.media.output"],
8189       "id": "unique_example_id",
8190       "sources": [
8191         {
8192           "sourceName": "HDMI-CEC",
8193           "sourceNumber": "1",
8194           "sourceType": "audioPlusVideo",
8195           "status": true
8196         },
8197         {
8198           "sourceName": "dualRCA",
8199           "sourceNumber": "1",
8200           "sourceType": "audioOnly",

```

```

8201         "status": false
8202     }
8203 ]
8204 }
8205
8206 post:
8207     description: |
8208         Changes the status of the source(s).
8209         Allows changes of the sourceName and the status.
8210
8211     body:
8212         application/json:
8213             schema: /
8214                 {
8215                     "$schema": "http://json-schema.org/draft-04/schema#",
8216                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8217 reserved.",
8218                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8219                     "title": "Media Source List",
8220                     "definitions": {
8221                         "oic.r.mediasourcelist": {
8222                             "properties": {
8223                                 "sources": {
8224                                     "type": "array",
8225                                     "items": {
8226                                         "oneOf": [
8227                                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
8228                                         ]
8229                                     }
8230                                 }
8231                             }
8232                         }
8233                     },
8234                     "type": "object",
8235                     "allOf": [
8236                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8237                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
8238                     ],
8239                     "required": ["sources"]
8240                 }
8241
8242     example: /
8243         {
8244             "id": "unique_example_id",
8245             "sources": [
8246                 {
8247                     "sourceName": "my new name",
8248                     "sourceNumber": "1",
8249                     "status": true
8250                 }
8251             ]
8252         }
8253
8254     responses :
8255         200:
8256             body:
8257                 application/json:
8258                     schema: /
8259                         {
8260                             "$schema": "http://json-schema.org/draft-04/schema#",
8261                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8262 rights reserved.",
8263                             "id":
8264 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",

```

```

8265         "title": "Media Source List",
8266         "definitions": {
8267             "oic.r.mediasourcelist": {
8268                 "properties": {
8269                     "sources": {
8270                         "type": "array",
8271                         "items": {
8272                             "oneOf": [
8273                                 { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediaSource" }
8274                             ]
8275                         }
8276                     }
8277                 }
8278             },
8279             "type": "object",
8280             "allOf": [
8281                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8282                 { "$ref": "#/definitions/oic.r.mediasourcelist" }
8283             ],
8284             "required": ["sources"]
8285         }
8286     }
8287
8288     example: /
8289     {
8290         "id": "unique_example_id",
8291         "sources": [
8292             {
8293                 "sourceName": "my new name",
8294                 "sourceNumber": "1",
8295                 "status": true
8296             }
8297         ]
8298     }
8299

```

8300 6.45.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: schema	see	yes	

8301 6.45.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceOutputResURI		get	post		

8302 6.46 Motion Sensor

8303 6.46.1 Introduction

8304 This resource describes whether motion has been sensed or not. The value is a boolean. A value
8305 of 'true' means that motion has been sensed. A value of 'false' means that motion not been sensed.

8306 6.46.2 Example URI

8307 /MotionResURI

8308 6.46.3 Resource Type

8309 The resource type (rt) is defined as: oic.r.sensor.motion.

8310 6.46.4 RAML Definition

```

8311 #%RAML 0.8
8312 title: OICMotionSensor
8313 version: v1.1.0-20160519
8314 traits:
8315   - interface :
8316       queryParameters:

```

```

8317         if:
8318             enum: ["oic.if.s", "oic.if.baseline"]
8319
8320 /MotionResURI:
8321     description: |
8322         This resource describes whether motion has been sensed or not.
8323         The value is a boolean.
8324         A value of 'true' means that motion has been sensed.
8325         A value of 'false' means that motion not been sensed.
8326
8327     is : ['interface']
8328     get:
8329         responses :
8330             200:
8331                 body:
8332                     application/json:
8333                         schema: /
8334                             {
8335                                 "id":
8336 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.motion.json#",
8337                                 "$schema": "http://json-schema.org/draft-04/schema#",
8338                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8339 rights reserved.",
8340                                 "title": "Motion Sensor",
8341                                 "definitions": {
8342                                     "oic.r.sensor.motion": {
8343                                         "allOf": [
8344                                             {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
8345                                         ]
8346                                     }
8347                                 },
8348                                 "type": "object",
8349                                 "allOf": [
8350                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8351                                     {"$ref": "#/definitions/oic.r.sensor.motion"}
8352                                 ],
8353                                 "required": ["value"]
8354                             }
8355
8356                         example: /
8357                             {
8358                                 "rt": ["oic.r.sensor.motion"],
8359                                 "id": "unique_example_id",
8360                                 "value": true
8361                             }
8362

```

8363 6.46.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

8364 6.46.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MotionResURI		get			

8365 6.47 Night Mode

8366 6.47.1 Introduction

8367 This resource describes a night mode on/off feature. A nightMode value of 'true' means that the
8368 feature is on. A nightMode value of 'false' means that the feature is off.

8369 6.47.2 Example URI

8370 /NightModeResURI

8371 6.47.3 Resource Type

8372 The resource type (rt) is defined as: oic.r.nightmode.

8373 6.47.4 RAML Definition

```
8374 #%RAML 0.8
8375 title: OICNightMode
8376 version: v1.1.0-20160519
8377 traits:
8378   - interface :
8379       queryParams:
8380         if:
8381           enum: ["oic.if.a", "oic.if.baseline"]
8382
8383 /NightModeResURI:
8384   description: |
8385     This resource describes a night mode on/off feature.
8386     A nightMode value of 'true' means that the feature is on.
8387     A nightMode value of 'false' means that the feature is off.
8388
8389   is : ['interface']
8390   get:
8391     responses :
8392       200:
8393         body:
8394           application/json:
8395             schema: /
8396               {
8397                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8398                 "$schema": "http://json-schema.org/draft-04/schema#",
8399                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8400 rights reserved.",
8401                 "title": "Night Mode",
8402                 "definitions": {
8403                   "oic.r.nightmode": {
8404                     "type": "object",
8405                     "properties": {
8406                       "nightMode": {
8407                         "type": "boolean",
8408                         "description": "Status of the Night Mode"
8409                       }
8410                     }
8411                   }
8412                 },
8413                 "type": "object",
8414                 "allOf": [
8415                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8416                   {"$ref": "#/definitions/oic.r.nightmode"}
8417                 ],
8418                 "required": [ "nightMode" ]
8419               }
8420
8421   example: /
```

```

8422         {
8423             "rt":          ["oic.r.nightmode"],
8424             "id":          "unique_example_id",
8425             "nightMode":  false
8426         }
8427
8428     post:
8429     body:
8430     application/json:
8431         schema: /
8432             {
8433                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8434                 "$schema": "http://json-schema.org/draft-04/schema#",
8435                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8436 reserved.",
8437                 "title": "Night Mode",
8438                 "definitions": {
8439                     "oic.r.nightmode": {
8440                         "type": "object",
8441                         "properties": {
8442                             "nightMode": {
8443                                 "type": "boolean",
8444                                 "description": "Status of the Night Mode"
8445                             }
8446                         }
8447                     }
8448                 },
8449                 "type": "object",
8450                 "allOf": [
8451                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8452                     {"$ref": "#/definitions/oic.r.nightmode"}
8453                 ],
8454                 "required": [ "nightMode" ]
8455             }
8456
8457     example: /
8458         {
8459             "id":          "unique_example_id",
8460             "nightMode":  true
8461         }
8462
8463     responses :
8464     200:
8465     body:
8466     application/json:
8467         schema: /
8468             {
8469                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8470                 "$schema": "http://json-schema.org/draft-04/schema#",
8471                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8472 rights reserved.",
8473                 "title": "Night Mode",
8474                 "definitions": {
8475                     "oic.r.nightmode": {
8476                         "type": "object",
8477                         "properties": {
8478                             "nightMode": {
8479                                 "type": "boolean",
8480                                 "description": "Status of the Night Mode"
8481                             }
8482                         }
8483                     }
8484                 },
8485                 "type": "object",
8486                 "allOf": [

```

```

8487         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8488         {"$ref": "#/definitions/oic.r.nightmode"}
8489     ],
8490     "required": [ "nightMode" ]
8491 }
8492
8493     example: /
8494     {
8495         "id":          "unique_example_id",
8496         "nightMode":  true
8497     }
8498

```

8499 6.47.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
nightMode	boolean	yes		Status of the Night Mode

8500 6.47.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/NightModeResURI		get	post		

8501 6.48 Presence Sensor

8502 6.48.1 Introduction

8503 This resource describes whether presence has been sensed or not. The value is a boolean. A
8504 value of 'true' means that presence has been sensed. A value of 'false' means that presence not
8505 been sensed.

8506 6.48.2 Example URI

8507 /PresenceResURI

8508 6.48.3 Resource Type

8509 The resource type (rt) is defined as: oic.r.sensor.presence.

8510 6.48.4 RAML Definition

```

8511 #%RAML 0.8
8512 title: OICPresenceSensor
8513 version: v1.1.0-20160519
8514 traits:
8515   - interface :
8516       queryParameters:
8517         if:
8518             enum: ["oic.if.s", "oic.if.baseline"]
8519
8520 /PresenceResURI:
8521     description: |
8522         This resource describes whether presence has been sensed or not.
8523         The value is a boolean.
8524         A value of 'true' means that presence has been sensed.
8525         A value of 'false' means that presence not been sensed.
8526
8527     is : ['interface']
8528     get:
8529         responses :
8530             200:
8531                 body:
8532                     application/json:

```

```

8533     schema: /
8534         {
8535             "id":
8536             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.presence.json#",
8537             "$schema": "http://json-schema.org/draft-04/schema#",
8538             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8539 rights reserved.",
8540             "title": "Presence Sensor",
8541             "definitions": {
8542                 "oic.r.sensor.presence": {
8543                     "allOf": [
8544                         {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
8545                     ]
8546                 }
8547             },
8548             "type": "object",
8549             "allOf": [
8550                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8551                 {"$ref": "#/definitions/oic.r.sensor.presence"}
8552             ],
8553             "required": ["value"]
8554         }
8555
8556     example: /
8557         {
8558             "rt": ["oic.r.sensor.presence"],
8559             "id": "unique_example_id",
8560             "value": true
8561         }
8562

```

8563 6.48.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

8564 6.48.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/PresenceResURI		get			

8565 6.49 Pan Tilt Zoom Movement

8566 6.49.1 Introduction

8567 This resource specifies the pan tilt and zoom capabilities of a device. The resource rt is dynamic
8568 and reflects whether the values apply to physical movement of the device or digital/virtual
8569 enhancements to the image. For physical movement the rt is 'oic.r.movement.ptz'. For
8570 digital/virtual image enhancements the rt is 'oic.r.image.ptz'. The Pan and Tilt are specified in
8571 degrees. The Zoom Factor is a value in the range 1-100 for linear (optical) zoom. The Zoom Factor
8572 is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom. If there is no zoom value to set
8573 the Zoom Factor shall be '1x'. The value 0 degrees means neutral, this is the vendor defined setting.
8574 Note that this resource also can be used to create an offset for physical movement. When that is
8575 the case, the rt value is: oic.r.movement.offset.ptz Note that this resource also can be used to
8576 create an offset for image movement. When that is the case, the rt value is: oic.r.image.offset.ptz
8577 When the pan_range value is omitted, then the range is [-180.0,180.0]. If pan is not supported
8578 then the range shall be [0.0,0.0] When the tilt_range value is omitted, then the range is [-
8579 180.0,180.0]. If tilt is not supported then the range shall be [0.0,0.0]

8580 6.49.2 Example URI

8581 /PanTiltZoomResURI

8582 6.49.3 Resource Type

8583 The resource type (rt) is defined as: oic.r.ptz.

8584 6.49.4 RAML Definition

```
8585 #%RAML 0.8
8586 title: OICPanTiltZoom
8587 version: v1.1.0-20160519
8588 traits:
8589   - interface :
8590     queryParameters:
8591       if:
8592         enum: ["oic.if.a", "oic.if.baseline"]
8593
8594 /PanTiltZoomResURI:
8595   description: |
8596     This resource specifies the pan tilt and zoom capabilities of a device.
8597     The resource rt is dynamic and reflects whether the values apply to
8598     physical movement of the device or digital/virtual enhancements to the image.
8599     For physical movement the rt is 'oic.r.movement.ptz'.
8600     For digital/virtual image enhancements the rt is 'oic.r.image.ptz'.
8601     The Pan and Tilt are specified in degrees.
8602     The Zoom Factor is a value in the range 1-100 for linear (optical) zoom.
8603     The Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom.
8604     If there is no zoom value to set the Zoom Factor shall be '1x'.
8605     The value 0 degrees means neutral, this is the vendor defined setting.
8606     Note that this resource also can be used to create an offset for physical movement.
8607     When that is the case, the rt value is: oic.r.movement.offset.ptz
8608     Note that this resource also can be used to create an offset for image movement.
8609     When that is the case, the rt value is: oic.r.image.offset.ptz
8610     When the pan_range value is omitted, then the range is [-180.0,180.0].
8611     If pan is not supported then the range shall be [0.0,0.0]
8612     When the tilt_range value is omitted, then the range is [-180.0,180.0].
8613     If tilt is not supported then the range shall be [0.0,0.0]
8614
8615   is : ['interface']
8616   get:
8617     description: |
8618       Retrieves the current pan, tilt and zoom setting.
8619
8620   responses :
8621     200:
8622       body:
8623         application/json:
8624           schema: /
8625             {
8626               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8627               "$schema": "http://json-schema.org/draft-04/schema#",
8628               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8629 rights reserved.",
8630               "title": "Pan Tilt Zoom",
8631               "definitions": {
8632                 "oic.r.ptz": {
8633                   "type": "object",
8634                   "properties": {
8635                     "pan": {
8636                       "type": "number",
8637                       "description": "horizontal pan in degrees"
8638                     },
8639                     "tilt": {
8640                       "type": "number",
8641                       "description": "vertical tilt in degrees"
8642                     }
8643                   }
8644                 }
8645             }
```

```

8643         "pan_range": {
8644             "type": "array",
8645             "readOnly": true,
8646             "description": "Min and Max values for the pan setting",
8647             "minItems": 2,
8648             "maxItems": 2,
8649             "items": {
8650                 "type": "number"
8651             }
8652         },
8653         "tilt_range": {
8654             "type": "array",
8655             "readOnly": true,
8656             "description": "Min and Max values for the tilt setting",
8657             "minItems": 2,
8658             "maxItems": 2,
8659             "items": {
8660                 "type": "number"
8661             }
8662         },
8663         "zoomFactor": {
8664             "type": "string",
8665             "description": "The Zoomfactor value"
8666         },
8667         "zoomFactorRange": {
8668             "type": "string",
8669             "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8670             "readOnly": true,
8671             "description": "allowed Zoom Factor values. Linear equates to a 1-100
8672 min/max."
8673         }
8674     }
8675 }
8676 },
8677 "type": "object",
8678 "allOf": [
8679     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8680     {"$ref": "#/definitions/oic.r.ptz"}
8681 ],
8682 "required": ["pan", "tilt", "zoomFactor"]
8683 }
8684
8685 example: /
8686 {
8687     "rt":          ["oic.r.ptz"],
8688     "id":          "unique_example_id",
8689     "pan":         0.0,
8690     "tilt":        0.0,
8691     "zoomFactor": "2x"
8692 }
8693
8694 post:
8695     description: |
8696     Sets the current pan, tilt and zoom value
8697
8698     body:
8699     application/json:
8700     schema: /
8701     {
8702         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8703         "$schema": "http://json-schema.org/draft-04/schema#",
8704         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8705 reserved.",
8706         "title": "Pan Tilt Zoom",
8707         "definitions": {
8708             "oic.r.ptz": {
8709                 "type": "object",

```

```

8710     "properties": {
8711         "pan": {
8712             "type": "number",
8713             "description": "horizontal pan in degrees"
8714         },
8715         "tilt": {
8716             "type": "number",
8717             "description": "vertical tilt in degrees"
8718         },
8719         "pan_range": {
8720             "type": "array",
8721             "readOnly": true,
8722             "description": "Min and Max values for the pan setting",
8723             "minItems": 2,
8724             "maxItems": 2,
8725             "items": {
8726                 "type": "number"
8727             }
8728         },
8729         "tilt_range": {
8730             "type": "array",
8731             "readOnly": true,
8732             "description": "Min and Max values for the tilt setting",
8733             "minItems": 2,
8734             "maxItems": 2,
8735             "items": {
8736                 "type": "number"
8737             }
8738         },
8739         "zoomFactor": {
8740             "type": "string",
8741             "description": "The Zoomfactor value"
8742         },
8743         "zoomFactorRange": {
8744             "type": "string",
8745             "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8746             "readOnly": true,
8747             "description": "allowed Zoom Factor values. Linear equates to a 1-100 min/max."
8748         }
8749     }
8750 }
8751 },
8752 "type": "object",
8753 "allOf": [
8754     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8755     {"$ref": "#/definitions/oic.r.ptz"}
8756 ],
8757 "required": ["pan", "tilt", "zoomFactor"]
8758 }
8759
8760 example: /
8761 {
8762     "id":          "unique_example_id",
8763     "pan":         10.0,
8764     "tilt":        -10.0,
8765     "zoomFactor": "4x"
8766 }
8767
8768 responses :
8769 200:
8770     body:
8771         application/json:
8772             schema: /
8773                 {
8774                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8775                     "$schema": "http://json-schema.org/draft-04/schema#",
8776                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All

```

```

8777 rights reserved.",
8778 "title": "Pan Tilt Zoom",
8779 "definitions": {
8780   "oic.r.ptz": {
8781     "type": "object",
8782     "properties": {
8783       "pan": {
8784         "type": "number",
8785         "description": "horizontal pan in degrees"
8786       },
8787       "tilt": {
8788         "type": "number",
8789         "description": "vertical tilt in degrees"
8790       },
8791       "pan_range": {
8792         "type": "array",
8793         "readOnly": true,
8794         "description": "Min and Max values for the pan setting",
8795         "minItems": 2,
8796         "maxItems": 2,
8797         "items": {
8798           "type": "number"
8799         }
8800       },
8801       "tilt_range": {
8802         "type": "array",
8803         "readOnly": true,
8804         "description": "Min and Max values for the tilt setting",
8805         "minItems": 2,
8806         "maxItems": 2,
8807         "items": {
8808           "type": "number"
8809         }
8810       },
8811       "zoomFactor": {
8812         "type": "string",
8813         "description": "The Zoomfactor value"
8814       },
8815       "zoomFactorRange": {
8816         "type": "string",
8817         "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8818         "readOnly": true,
8819         "description": "allowed Zoom Factor values. Linear equates to a 1-100
8820 min/max."
8821       }
8822     }
8823   },
8824   "type": "object",
8825   "allOf": [
8826     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8827     { "$ref": "#/definitions/oic.r.ptz" }
8828   ],
8829   "required": ["pan", "tilt", "zoomFactor"]
8830 }
8831 }
8832
8833 example: /
8834 {
8835   "id": "unique_example_id",
8836   "pan": 10.0,
8837   "tilt": -10.0,
8838   "zoomFactor": "4x"
8839 }
8840

```

8841 6.49.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

tilt_range	array: schema	see		Read Only	Min and Max values for the tilt setting
zoomFactor	string		yes		The Zoomfactor value
tilt	number		yes		vertical tilt in degrees
pan_range	array: schema	see		Read Only	Min and Max values for the pan setting
zoomFactorRange	string			Read Only	allowed Zoom Factor values. Linear equates to a 1-100 min/max.
pan	number		yes		horizontal pan in degrees

8842 **6.49.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/PanTiltZoomResURI		get	post		

8843 **6.50 Signal Strength**

8844 **6.50.1 Introduction**

8845 This resource describes the strength of a signal by means of lqi and rssi. The lqi is a floating point
8846 number that represents Link Quality Indicator. The rssi is a floating point number that represents
8847 the received signal strength indicator.

8848 **6.50.2 Example URI**

8849 /SignalStrengthResURI

8850 **6.50.3 Resource Type**

8851 The resource type (rt) is defined as: oic.r.signalstrength.

8852 **6.50.4 RAML Definition**

```
8853 #%RAML 0.8
8854 title: OICSignalStrength
8855 version: v1.1.0-20160519
8856 traits:
8857   - interface :
8858     queryParameters:
8859       if:
8860         enum: ["oic.if.s", "oic.if.baseline"]
8861
8862 /SignalStrengthResURI:
8863   description: |
8864     This resource describes the strength of a signal by means of lqi and rssi.
8865     The lqi is a floating point number that represents Link Quality Indicator.
8866     The rssi is a floating point number that represents the received signal strength indicator.
8867
8868   is : ['interface']
8869   get:
8870     responses :
8871       200:
8872         body:
8873           application/json:
```

```

8874     schema: /
8875     {
8876     "id":
8877     "http://openinterconnect.org/iotdatamodels/schemas/oic.r.signalStrength.json#",
8878     "$schema": "http://json-schema.org/draft-04/schema#",
8879     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8880 rights reserved.",
8881     "title": "Signal Strength",
8882     "definitions": {
8883     "oic.r.signalstrength": {
8884     "type": "object",
8885     "properties": {
8886     "lqi": {
8887     "type": "number",
8888     "readOnly": true,
8889     "description": "current value of Link Quality Indicator"
8890     },
8891     "rssi": {
8892     "type": "number",
8893     "readOnly": true,
8894     "description": "current value of Received Signal Strength Indicator"
8895     }
8896     }
8897     },
8898     "type": "object",
8899     "allOf": [
8900     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8901     {"$ref": "#/definitions/oic.r.signalstrength"}
8902     ],
8903     "required": ["lqi","rssi"]
8904     }
8905
8906
8907     example: /
8908     {
8909     "rt": ["oic.r.signalstrength"],
8910     "id": "unique_example_id",
8911     "lqi": 10.0,
8912     "rssi": 55.0
8913     }
8914

```

6.50.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rssi	number	yes	Read Only	current value of Received Signal Strength Indicator
lqi	number	yes	Read Only	current value of Link Quality Indicator

6.50.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SignalStrengthResURI		get			

6.51 Speech Synthesis-TTS

6.51.1 Introduction

8919 This resource may be created on the OIC Server that is capable of rendering speech by an OIC
8920 Client and allows the client to provide an SSML document with text to render or may be created
8921 on the OIC Server by some resident application. The audio rendered is at this stage local to the
8922 Server (i.e. not streamed). The utterance is an SSML document. The supportedLanguages is an

8923 array of the RFC 5646 defined language tags that are supported. The supportedVoices is an SSML
8924 document fragment indicating the voices that are supported.

8925 **6.51.2 Example URI**

8926 /SpeechTTSResURI

8927 **6.51.3 Resource Type**

8928 The resource type (rt) is defined as: oic.r.speech.tts.

8929 **6.51.4 RAML Definition**

8930 `##RAML 0.8`

8931 `title: OICSpeechTTS`

8932 `version: v1.1.0-20160519`

8933 `traits:`

8934 `- interface :`

8935 `queryParameters:`

8936 `if:`

8937 `enum: ["oic.if.a", "oic.if.baseline"]`

8938

8939 `/SpeechTTSResURI:`

8940 `description: |`

8941 `This resource may be created on the OIC Server that is capable of rendering speech by an OIC`
8942 `Client`

8943 `and allows the client to provide an SSML document with text to render`

8944 `or may be created on the OIC Server by some resident application.`

8945 `The audio rendered is at this stage local to the Server (i.e`

8946 `not streamed).`

8947 `The utterance is an SSML document.`

8948 `The supportedLanguages is an array of the RFC 5646 defined language tags that are supported.`

8949 `The supportedVoices is an SSML document fragment indicating the voices that are supported.`

8950

8951 `is : ['interface']`

8952 `get:`

8953 `description: |`

8954 `Utterance in the example shall be a properly escaped (JSON rules) SSML document`

8955 `An example is given below:`

8956 `"<?xml version=\"1.0\" encoding=\"ISO-8859-1\"?>\n\r`

8957 `< speak version=\"1.1\" xmlns=\"http://www.w3.org/2001/10/synthesis\" \n\r`

8958 `\txmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\" \n\r`

8959 `\txsi:schemaLocation=\"http://www.w3.org/2001/10/synthesis\" \n\r`

8960 `\thttp://www.w3.org/TR/speech-synthesis11/synthesis.xsd\" \n\r`

8961 `\txml:lang=\"en-US\">\n\r`

8962 `\n\r`

8963 `\tThe title of the movie is:\n\r`

8964 `\t\"Monty Pythons The Meaning of Life\" \n\r`

8965 `\twhich is directed by Terry Jones.\n\r`

8966 `</speak\"`

8967

8968 `responses :`

8969 `200:`

8970 `body:`

8971 `application/json:`

8972 `schema: |`

8973 `{`

8974 `\"id\": \"http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#\",`

8975 `\"$schema\": \"http://json-schema.org/draft-04/schema#\",`

8976 `\"description\" : \"Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`

8977 `rights reserved.\" ,`

8978 `\"title\": \"Speech Synthesis-TTS\",`

8979 `\"definitions\": {`

8980 `\"oic.r.speech.tts\": {`

```

8981         "type": "object",
8982         "properties": {
8983             "utterance": {
8984                 "type": "string",
8985                 "description": "SSML document including the speech body"
8986             },
8987             "supportedLanguages": {
8988                 "type": "array",
8989                 "readOnly": true,
8990                 "description": "array of supported language tags",
8991                 "items": {
8992                     "type": "string"
8993                 }
8994             },
8995             "supportedVoices": {
8996                 "type": "string",
8997                 "readOnly": true,
8998                 "description": "SSML document fragment indicating supported voices"
8999             }
9000         }
9001     },
9002     "type": "object",
9003     "allOf": [
9004         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9005         {"$ref": "#/definitions/oic.r.speech.tts"}
9006     ],
9007     "required": ["utterance"]
9008 }
9009
9010
9011     example: /
9012     {
9013         "rt":             ["oic.r.speech.tts"],
9014         "id":             "unique_example_id",
9015         "utterance":     "SSML Document",
9016         "supportedLanguages": ["en-US", "en-GB", "fr-CA"],
9017         "supportedVoices": "<voice gender=\"female\" variant=\"2\"></voice>\n\r<voice
9018 name=\"Mike\"></voice>"
9019     }
9020
9021     post:
9022         description: |
9023             Changes the utterance being rendered.
9024             Example shows a change in language selected.
9025
9026     body:
9027         application/json:
9028             schema: /
9029             {
9030                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#",
9031                 "$schema": "http://json-schema.org/draft-04/schema#",
9032                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9033 reserved.",
9034                 "title": "Speech Synthesis-TTS",
9035                 "definitions": {
9036                     "oic.r.speech.tts": {
9037                         "type": "object",
9038                         "properties": {
9039                             "utterance": {
9040                                 "type": "string",
9041                                 "description": "SSML document including the speech body"
9042                             },
9043                             "supportedLanguages": {
9044                                 "type": "array",
9045                                 "readOnly": true,
9046                                 "description": "array of supported language tags",
9047                                 "items": {

```

```

9048         "type": "string"
9049     }
9050 },
9051     "supportedVoices": {
9052         "type": "string",
9053         "readOnly": true,
9054         "description": "SSML document fragment indicating supported voices"
9055     }
9056 }
9057 }
9058 },
9059     "type": "object",
9060     "allOf": [
9061         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9062         {"$ref": "#/definitions/oic.r.speech.tts"}
9063     ],
9064     "required": ["utterance"]
9065 }
9066
9067 example: /
9068 {
9069     "rt":         ["oic.r.speech.tts"],
9070     "id":         "unique_example_id",
9071     "utterance": "SSML Document"
9072 }
9073
9074 responses :
9075     200:
9076         body:
9077             application/json:
9078                 schema: /
9079                 {
9080                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#",
9081                     "$schema": "http://json-schema.org/draft-04/schema#",
9082                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9083 rights reserved.",
9084                     "title": "Speech Synthesis-TTS",
9085                     "definitions": {
9086                         "oic.r.speech.tts": {
9087                             "type": "object",
9088                             "properties": {
9089                                 "utterance": {
9090                                     "type": "string",
9091                                     "description": "SSML document including the speech body"
9092                                 },
9093                                 "supportedLanguages": {
9094                                     "type": "array",
9095                                     "readOnly": true,
9096                                     "description": "array of supported language tags",
9097                                     "items": {
9098                                         "type": "string"
9099                                     }
9100                                 },
9101                                 "supportedVoices": {
9102                                     "type": "string",
9103                                     "readOnly": true,
9104                                     "description": "SSML document fragment indicating supported voices"
9105                                 }
9106                             }
9107                         }
9108                     },
9109                     "type": "object",
9110                     "allOf": [
9111                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9112                         {"$ref": "#/definitions/oic.r.speech.tts"}
9113                     ],
9114                     "required": ["utterance"]

```

```

9115     }
9116
9117     example: /
9118     {
9119         "rt":          ["oic.r.speech.tts"],
9120         "id":          "unique_example_id",
9121         "utterance":  "SSML Document"
9122     }
9123

```

9124 6.51.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
supportedVoices	string		Read Only	SSML document fragment indicating supported voices
utterance	string	yes		SSML document including the speech body
supportedLanguages	array: see schema		Read Only	array of supported language tags

9125 6.51.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SpeechTTSResURI		get	post		

9126 6.52 Touch Sensor

9127 6.52.1 Introduction

9128 This resource describes whether touch has been sensed or not. The value is a boolean. A value
 9129 of 'true' means that touch has been sensed. A value of 'false' means that touch not been sensed.

9130 6.52.2 Example URI

9131 /TouchResURI

9132 6.52.3 Resource Type

9133 The resource type (rt) is defined as: oic.r.sensor.touch.

9134 6.52.4 RAML Definition

```

9135 #%RAML 0.8
9136 title: OICTouchSensor
9137 version: v1.1.0-20160519
9138 traits:
9139   - interface :
9140     queryParameters:
9141       if:
9142         enum: ["oic.if.s", "oic.if.baseline"]
9143
9144 /TouchResURI:
9145   description: |
9146     This resource describes whether touch has been sensed or not.
9147     The value is a boolean.
9148     A value of 'true' means that touch has been sensed.
9149     A value of 'false' means that touch not been sensed.
9150
9151   is : ['interface']

```

```

9152   get:
9153     responses :
9154       200:
9155         body:
9156           application/json:
9157             schema: /
9158               {
9159                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.touch.json#",
9160                 "$schema": "http://json-schema.org/draft-04/schema#",
9161                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9162 rights reserved.",
9163                 "title": "Touch Sensor",
9164                 "definitions": {
9165                   "oic.r.sensor.touch": {
9166                     "allOf": [
9167                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9168                     ]
9169                   }
9170                 },
9171                 "type": "object",
9172                 "allOf": [
9173                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9174                   {"$ref": "#/definitions/oic.r.sensor.touch"}
9175                 ],
9176                 "required": ["value"]
9177               }
9178
9179           example: /
9180             {
9181               "rt":    ["oic.r.sensor.touch"],
9182               "id":    "unique_example_id",
9183               "value": true
9184             }
9185

```

9186 6.52.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

9187 6.52.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/TouchResURI		get			

9188 6.53 UV Radiation

9189 6.53.1 Introduction

9190 This resource specifies UV radiation measurement. The measurement is the current measured UV
9191 Index

9192 6.53.2 Example URI

9193 /UVRadiationResURI

9194 6.53.3 Resource Type

9195 The resource type (rt) is defined as: oic.r.sensor.radiation.uv.

9196 6.53.4 RAML Definition

```

9197 #%RAML 0.8
9198 title: OICUVRadiation
9199 version: v1.1.0-20160519
9200 traits:

```

```

9201 - interface :
9202   queryParameters:
9203     if:
9204       enum: ["oic.if.s", "oic.if.baseline"]
9205
9206 /UVRadiationResURI:
9207   description: |
9208     This resource specifies UV radiation measurement.
9209     The measurement is the current measured UV Index
9210
9211   is : ['interface']
9212   get:
9213     description: |
9214       Retrieves the current UV Radiation value
9215
9216   responses :
9217     200:
9218       body:
9219         application/json:
9220           schema: /
9221             {
9222               "id":
9223 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.radiation.uv.json#",
9224               "$schema": "http://json-schema.org/draft-04/schema#",
9225               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9226 rights reserved.",
9227               "title": "UV Radiation",
9228               "definitions": {
9229                 "oic.r.sensor.radiation.uv": {
9230                   "type": "object",
9231                   "properties": {
9232                     "measurement": {
9233                       "type": "number",
9234                       "readOnly": true,
9235                       "description": "The measured UV Index"
9236                     }
9237                   }
9238                 }
9239               },
9240               "type": "object",
9241               "allOf": [
9242                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9243                 {"$ref": "#/definitions/oic.r.sensor.radiation.uv"}
9244               ],
9245               "required": ["measurement"]
9246             }
9247
9248   example: /
9249     {
9250       "rt":          ["oic.r.sensor.radiation.uv"],
9251       "id":          "unique_example_id",
9252       "measurement": 3.5
9253     }
9254
9255

```

6.53.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
measurement	number	yes	Read Only	The measured UV Index

9256 **6.53.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/UVRadiationResURI		get			

9257 **6.54 Water Sensor**

9258 **6.54.1 Introduction**

9259 This resource describes whether water has been sensed or not. The value is a boolean. A value
 9260 of 'true' means that water has been sensed. A value of 'false' means that water not been sensed.

9261 **6.54.2 Example URI**

9262 /WaterResURI

9263 **6.54.3 Resource Type**

9264 The resource type (rt) is defined as: oic.r.sensor.water.

9265 **6.54.4 RAML Definition**

```

9266 #%RAML 0.8
9267 title: OICWaterSensor
9268 version: v1.1.0-20160519
9269 traits:
9270   - interface :
9271       queryParameters:
9272         if:
9273           enum: ["oic.if.s", "oic.if.baseline"]
9274
9275 /WaterResURI:
9276   description: |
9277     This resource describes whether water has been sensed or not.
9278     The value is a boolean.
9279     A value of 'true' means that water has been sensed.
9280     A value of 'false' means that water not been sensed.
9281
9282   is : ['interface']
9283   get:
9284     responses :
9285       200:
9286         body:
9287           application/json:
9288             schema: /
9289               {
9290                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.water.json#",
9291                 "$schema": "http://json-schema.org/draft-04/schema#",
9292                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9293 rights reserved.",
9294                 "title": "Water Sensor",
9295                 "definitions": {
9296                   "oic.r.sensor.water": {
9297                     "allOf": [
9298                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9299                     ]
9300                   }
9301                 },
9302                 "type": "object",
9303                 "allOf": [
9304                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9305                   {"$ref": "#/definitions/oic.r.sensor.water"}
9306                 ],
9307                 "required": ["value"]
  
```

```

9308     }
9309
9310     example: /
9311     {
9312         "rt": ["oic.r.sensor.water"],
9313         "id": "unique_example_id",
9314         "value": true
9315     }
9316

```

9317 6.54.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

9318 6.54.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/WaterResURI		get			

9319 6.55 Acceleration Sensor

9320 6.55.1 Introduction

9321 This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate
 9322 acceleration (which is dependent on the co-ordinate system and the observer). The value is a float
 9323 which describes the acceleration experienced by the object in "g".

9324 6.55.2 Example URI

9325 /AccelerationResURI

9326 6.55.3 Resource Type

9327 The resource type (rt) is defined as: oic.r.sensor.acceleration.

9328 6.55.4 RAML Definition

```

9329 #%RAML 0.8
9330 title: OICAcceleration
9331 version: v1.1.0-20160519
9332 traits:
9333   - interface :
9334       queryParameters:
9335         if:
9336           enum: ["oic.if.s", "oic.if.baseline"]
9337
9338 /AccelerationResURI:
9339   description: |
9340     This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate
9341     acceleration
9342     (which is dependent on the co-ordinate system and the observer).
9343     The value is a float which describes the acceleration experienced by the object in "g".
9344
9345   is : ['interface']
9346   get:
9347     responses :
9348       200:
9349         body:
9350           application/json:
9351             schema: /

```

```

9352     {
9353         "id":
9354         "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.acceleration.json#",
9355         "$schema": "http://json-schema.org/draft-04/schema#",
9356         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9357 rights reserved.",
9358         "title": "Acceleration Sensor",
9359         "definitions": {
9360             "oic.r.sensor.acceleration": {
9361                 "properties": {
9362                     "acceleration": {
9363                         "type": "number",
9364                         "readOnly": true,
9365                         "description": "sensed acceleration experienced in 'g'."
9366                     }
9367                 }
9368             }
9369         },
9370         "type": "object",
9371         "allOf": [
9372             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9373             {"$ref": "#/definitions/oic.r.sensor.acceleration"}
9374         ],
9375         "required": ["acceleration"]
9376     }
9377
9378     example: /
9379     {
9380         "rt":          ["oic.r.sensor.acceleration"],
9381         "id":          "unique_example_id",
9382         "acceleration": 0.5
9383     }
9384

```

9385 6.55.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
acceleration	number	yes	Read Only	sensed acceleration experienced in 'g'.

9386 6.55.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AccelerationResURI		get			

9387 6.56 Movement

9388 6.56.1 Introduction

9389 This resource specifies linear movement. The movementSettings is an array of strings containing
9390 possible movement values (e.g. spin, stop, left, right). The movement is the currently selected
9391 movement value. The movementModifier is a modifier to the movement value (e.g. "spin", "90")

9392 6.56.2 Example URI

9393 /MovementResURI

9394 6.56.3 Resource Type

9395 The resource type (rt) is defined as: oic.r.movement.linear.

9396 6.56.4 RAML Definition

```

9397 #%RAML 0.8
9398 title: OICAcceleration
9399 version: v1.1.0-20160519
9400 traits:

```

```

9401 - interface :
9402   queryParameters:
9403     if:
9404       enum: ["oic.if.s", "oic.if.baseline"]
9405
9406 /MovementResURI:
9407   description: |
9408     This resource specifies linear movement.
9409     The movementSettings is an array of strings containing possible movement values (e.g
9410     spin, stop, left, right).
9411     The movement is the currently selected movement value.
9412     The movementModifier is a modifier to the movement value (e.g
9413     "spin", "90")
9414
9415   is : ['interface']
9416   get:
9417     responses :
9418       200:
9419         body:
9420           application/json:
9421             schema: /
9422               {
9423                 "id":
9424 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9425                 "$schema": "http://json-schema.org/draft-04/schema#",
9426                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9427 rights reserved.",
9428                 "title": "Linear Movement",
9429                 "definitions": {
9430                   "oic.r.movement.linear": {
9431                     "type": "object",
9432                     "properties": {
9433                       "movementSettings": {
9434                         "type": "array",
9435                         "readOnly": true,
9436                         "description": "array of possible movement values",
9437                         "items": {
9438                           "type": "string"
9439                         }
9440                       },
9441                       "movement": {
9442                         "type": "string",
9443                         "description": "Current movement value"
9444                       },
9445                       "movementModifier": {
9446                         "type": "string",
9447                         "description": "Modifier to the movement value (e.g. spin-90, left-20),
9448 units are device dependent"
9449                       }
9450                     }
9451                   },
9452                 },
9453                 "type": "object",
9454                 "allOf": [
9455                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9456                   {"$ref": "#/definitions/oic.r.movement.linear"}
9457                 ],
9458                 "required": ["movementSettings", "movement"]
9459               }
9460
9461           example: /
9462             {
9463               "rt":           ["oic.r.movement.linear"],
9464               "id":          "unique_example_id",

```

```

9465         "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9466         "movement":          "rotate",
9467         "movementModifier": "90"
9468     }
9469
9470 post:
9471     description: |
9472         Sets the current device movement
9473
9474     body:
9475         application/json:
9476             schema: /
9477                 {
9478                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9479                     "$schema": "http://json-schema.org/draft-04/schema#",
9480                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9481 reserved.",
9482                     "title": "Linear Movement",
9483                     "definitions": {
9484                         "oic.r.movement.linear": {
9485                             "type": "object",
9486                             "properties": {
9487                                 "movementSettings": {
9488                                     "type": "array",
9489                                     "readOnly": true,
9490                                     "description": "array of possible movement values",
9491                                     "items": {
9492                                         "type": "string"
9493                                     }
9494                                 },
9495                                 "movement": {
9496                                     "type": "string",
9497                                     "description": "Current movement value"
9498                                 },
9499                                 "movementModifier": {
9500                                     "type": "string",
9501                                     "description": "Modifier to the movement value (e.g. spin-90, left-20), units
9502 are device dependent"
9503                                 }
9504                             }
9505                         }
9506                     },
9507                     "type": "object",
9508                     "allOf": [
9509                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9510                         {"$ref": "#/definitions/oic.r.movement.linear"}
9511                     ],
9512                     "required": ["movementSettings", "movement"]
9513                 }
9514
9515     example: /
9516         {
9517             "id":          "unique_example_id",
9518             "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9519             "movement": "stop"
9520         }
9521
9522     responses :
9523         200:
9524             body:
9525                 application/json:
9526                     schema: /
9527                         {
9528                             "id":

```

```

9529 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9530 "$schema": "http://json-schema.org/draft-04/schema#",
9531 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9532 rights reserved.",
9533 "title": "Linear Movement",
9534 "definitions": {
9535   "oic.r.movement.linear": {
9536     "type": "object",
9537     "properties": {
9538       "movementSettings": {
9539         "type": "array",
9540         "readOnly": true,
9541         "description": "array of possible movement values",
9542         "items": {
9543           "type": "string"
9544         }
9545       },
9546       "movement": {
9547         "type": "string",
9548         "description": "Current movement value"
9549       },
9550       "movementModifier": {
9551         "type": "string",
9552         "description": "Modifier to the movement value (e.g. spin-90, left-20),
9553 units are device dependent"
9554       }
9555     }
9556   },
9557 },
9558 "type": "object",
9559 "allOf": [
9560   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9561   {"$ref": "#/definitions/oic.r.movement.linear"}
9562 ],
9563 "required": ["movementSettings", "movement"]
9564 }
9565
9566 example: /
9567 {
9568   "id": "unique_example_id",
9569   "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9570   "movement": "stop"
9571 }
9572

```

9573 6.56.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
movementSettings	array: see schema	yes	Read Only	array of possible movement values
movementModifier	string			Modifier to the movement value (e.g. spin-90, left-20), units are device dependent
movement	string	yes		Current movement value

9574 6.56.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MovementResURI		get	post		

9575 6.57 Sleep Sensor

9576 6.57.1 Introduction

9577 This resource describes whether human sleep has been sensed or not. The value is a boolean. A
9578 value of 'true' means that sleep has been sensed. A value of 'false' means that sleep not been
9579 sensed.

9580 6.57.2 Example URI

9581 /SleepSensorResURI

9582 6.57.3 Resource Type

9583 The resource type (rt) is defined as: oic.r.sensor.sleep.

9584 6.57.4 RAML Definition

```
9585 #%RAML 0.8
9586 title: OICSleepSensor
9587 version: v1.1.0-20160519
9588 traits:
9589   - interface :
9590     queryParameters:
9591       if:
9592         enum: ["oic.if.s", "oic.if.baseline"]
9593
9594 /SleepSensorResURI:
9595   description: |
9596     This resource describes whether human sleep has been sensed or not.
9597     The value is a boolean.
9598     A value of 'true' means that sleep has been sensed.
9599     A value of 'false' means that sleep not been sensed.
9600
9601   is : ['interface']
9602   get:
9603     responses :
9604       200:
9605         body:
9606           application/json:
9607             schema: /
9608               {
9609                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.sleep.json#",
9610                 "$schema": "http://json-schema.org/draft-04/schema#",
9611                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9612 rights reserved.",
9613                 "title": "Sleep Sensor",
9614                 "definitions": {
9615                   "oic.r.sensor.sleep": {
9616                     "allOf": [
9617                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9618                     ]
9619                   }
9620                 },
9621                 "type": "object",
9622                 "allOf": [
9623                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9624                   {"$ref": "#/definitions/oic.r.sensor.sleep"}
9625                 ],
9626                 "required": ["value"]
9627               }
9628
9629   example: /
```

```

9630     {
9631         "rt":      ["oic.r.sensor.sleep"],
9632         "id":      "unique_example_id",
9633         "value":   true
9634     }
9635

```

9636 6.57.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

9637 6.57.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SleepSensorResURI		get			

9638 6.58 Smoke Sensor

9639 6.58.1 Introduction

9640 This resource describes whether smoke has been sensed or not. The value is a boolean. A value
 9641 of 'true' means that smoke has been sensed. A value of 'false' means that smoke not been sensed.

9642 6.58.2 Example URI

9643 /SmokeSensorResURI

9644 6.58.3 Resource Type

9645 The resource type (rt) is defined as: oic.r.sensor.smoke.

9646 6.58.4 RAML Definition

```

9647 #%RAML 0.8
9648 title: OICSmokeSensor
9649 version: v1.1.0-20160519
9650 traits:
9651   - interface :
9652       queryParameters:
9653         if:
9654           enum: ["oic.if.s", "oic.if.baseline"]
9655
9656 /SmokeSensorResURI:
9657   description: |
9658     This resource describes whether smoke has been sensed or not.
9659     The value is a boolean.
9660     A value of 'true' means that smoke has been sensed.
9661     A value of 'false' means that smoke not been sensed.
9662
9663   is : ['interface']
9664   get:
9665     responses :
9666       200:
9667         body:
9668           application/json:
9669             schema: /
9670             {
9671               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.smoke.json#",
9672               "$schema": "http://json-schema.org/draft-04/schema#",
9673               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9674 rights reserved.",
9675               "title": "Smoke Sensor",

```



```

9676     "definitions": {
9677         "oic.r.sensor.smoke": {
9678             "allOf": [
9679                 {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9680             ]
9681         },
9682     },
9683     "type": "object",
9684     "allOf": [
9685         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9686         {"$ref": "#/definitions/oic.r.sensor.smoke"}
9687     ],
9688     "required": ["value"]
9689 }
9690
9691 example: /
9692 {
9693     "rt":      ["oic.r.sensor.smoke"],
9694     "id":      "unique_example_id",
9695     "value":   true
9696 }
9697

```

9698 6.58.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

9699 6.58.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SmokeSensorResURI		get			

9700 6.59 Three Axis Sensor

9701 6.59.1 Introduction

9702 This resource provides a representation of the measurement from a three-axis sensor. The
9703 orientation is an array of numbers representing x-plane, y-plane and z-plane values. The unit of
9704 measurement for each pane is 'g'.

9705 6.59.2 Example URI

9706 /ThreeAxisResURI

9707 6.59.3 Resource Type

9708 The resource type (rt) is defined as: oic.r.sensor.threeaxis.

9709 6.59.4 RAML Definition

```

9710 #%RAML 0.8
9711 title: OICThreeAxis
9712 version: v1.1.0-20160519
9713 traits:
9714   - interface :
9715       queryParameters:
9716           if:
9717               enum: ["oic.if.s", "oic.if.baseline"]
9718
9719 /ThreeAxisResURI:
9720     description: |
9721         This resource provides a representation of the measurement from a three-axis sensor.
9722         The orientation is an array of numbers representing x-plane, y-plane and z-plane values.

```

```

9723     The unit of measurement for each pane is 'g'.
9724
9725     is : ['interface']
9726     get:
9727         responses :
9728             200:
9729                 body:
9730                     application/json:
9731                         schema: /
9732                             {
9733                                 "id":
9734 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.threeaxis.json#",
9735                                 "$schema": "http://json-schema.org/draft-04/schema#",
9736                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9737 rights reserved.",
9738                                 "title": "Three Axis Sensor",
9739                                 "definitions": {
9740                                     "oic.r.sensor.threeaxis": {
9741                                         "properties": {
9742                                             "orientation": {
9743                                                 "type": "array",
9744                                                 "readOnly": true,
9745                                                 "description": "Array containing x-plane, y-plane and z-plane orientation
9746 in 'g'.",
9747                                                 "minItems": 3,
9748                                                 "maxItems": 3,
9749                                                 "items": {
9750                                                     "type": "number"
9751                                                 }
9752                                             }
9753                                         }
9754                                     }
9755                                 },
9756                                 "type": "object",
9757                                 "allOf": [
9758                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9759                                     {"$ref": "#/definitions/oic.r.sensor.threeaxis"}
9760                                 ],
9761                                 "required": ["orientation"]
9762                             }
9763
9764                         example: /
9765                             {
9766                                 "rt":          ["oic.r.sensor.threeaxis"],
9767                                 "id":          "unique_example_id",
9768                                 "orientation": [0.7, 1.1, -0.2]
9769                             }
9770

```

9771 6.59.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
orientation	array: see schema	yes	Read Only	Array containing x-plane, y-plane and z-plane orientation in 'g'.

9772 6.59.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ThreeAxisResURI		get			

9773 **6.60 Altimeter**

9774 **6.60.1 Introduction**

9775 This resource describes the properties associated with altimeter. Altimeter is a height of the
9776 position (metres).

9777 **6.60.2 Example URI**

9778 /AltimeterResURI

9779 **6.60.3 Resource Type**

9780 The resource type (rt) is defined as: oic.r.altimeter.

9781 **6.60.4 RAML Definition**

```
9782 #%RAML 0.8
9783 title: OICAltimeter
9784 version: v1.1.0-20160519
9785 traits:
9786   - interface :
9787     queryParameters:
9788       if:
9789         enum: ["oic.if.s", "oic.if.baseline"]
9790
9791 /AltimeterResURI:
9792   description: |
9793     This resource describes the properties associated with altimeter.
9794     Altimeter is a height of the position (metres).
9795
9796   is : ['interface']
9797   get:
9798     description: |
9799       Retrieves the current the height of the position (metres).
9800
9801   responses :
9802     200:
9803       body:
9804         application/json:
9805           schema: /
9806             {
9807               "id": "http://openinterconnect.org/schemas/oic.r.altimeter#",
9808               "$schema": "http://json-schema.org/draft-04/schema#",
9809               "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
9810 rights reserved.",
9811               "title": "Altimeter",
9812               "definitions": {
9813                 "oic.r.altimeter": {
9814                   "type": "object",
9815                   "properties": {
9816                     "alt": {
9817                       "type": "number",
9818                       "minimum": 0,
9819                       "readOnly": true,
9820                       "description": "The current height of the position (metres)"
9821                     }
9822                   }
9823                 },
9824               "type": "object",
9825               "allOf": [
9826                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9827                 {"$ref": "#/definitions/oic.r.altimeter"}
9828               ]
9829             }
```

```

9829         ],
9830         "required": ["alt"]
9831     }
9832
9833     example: /
9834     {
9835         "rt": ["oic.r.altimeter"],
9836         "id": "unique_example_id",
9837         "alt": 1500.0
9838     }
9839

```

9840 6.60.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
alt	number	yes	Read Only	The current height of the position (metres)

9841 6.60.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AltimeterResURI		get			

9842 6.61 Clock

9843 6.61.1 Introduction

9844 This resource describes the properties associated with clock and time. Clock is a time information.
 9845 Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone)
 9846 Countdown is the desired total seconds for countdown.

9847 6.61.2 Example URI

9848 /ClockResURI

9849 6.61.3 Resource Type

9850 The resource type (rt) is defined as: oic.r.clock.

9851 6.61.4 RAML Definition

```

9852 #%RAML 0.8
9853 title: OICClock
9854 version: v1.1.0-20160519
9855 traits:
9856   - interface :
9857     queryParameters:
9858       if:
9859         enum: ["oic.if.a", "oic.if.baseline"]
9860
9861 /ClockResURI:
9862   description: |
9863     This resource describes the properties associated with clock and time.
9864     Clock is a time information.
9865     Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone)
9866     Countdown is the desired total seconds for countdown.
9867
9868   is : ['interface']
9869   get:
9870     description: |
9871       Retrieves the current datetime data.
9872
9873   responses :

```

```

9874     200:
9875         body:
9876             application/json:
9877                 schema: /
9878                     {
9879                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9880                         "$schema": "http://json-schema.org/draft-04/schema#",
9881                         "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9882 reserved.",
9883                         "title": "Clock",
9884                         "definitions": {
9885                             "oic.r.clock": {
9886                                 "type": "object",
9887                                 "properties": {
9888                                     "datetime": {
9889                                         "type": "string",
9890                                         "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,
9891 2007-04-05T14:30+09:00)"
9892                                     },
9893                                     "countdown": {
9894                                         "type": "number",
9895                                         "minimum": 0,
9896                                         "description": "Desired total seconds for countdown"
9897                                     }
9898                                 }
9899                             }
9900                         },
9901                         "type": "object",
9902                         "allOf": [
9903                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9904                             {"$ref": "#/definitions/oic.r.clock"}
9905                         ],
9906                         "required": ["datetime"]
9907                     }
9908
9909                 example: /
9910                     {
9911                         "rt": ["oic.r.clock"],
9912                         "id": "unique_example_id",
9913                         "datetime": "2015-11-05T14:30Z",
9914                         "countdown": 0.0
9915                     }
9916
9917         post:
9918             description: |
9919                 Sets the desired datetime.
9920
9921             body:
9922                 application/json:
9923                     schema: /
9924                         {
9925                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9926                             "$schema": "http://json-schema.org/draft-04/schema#",
9927                             "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9928 reserved.",
9929                             "title": "Clock",
9930                             "definitions": {
9931                                 "oic.r.clock": {
9932                                     "type": "object",
9933                                     "properties": {
9934                                         "datetime": {
9935                                             "type": "string",
9936                                             "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-
9937 04-05T14:30+09:00)"
9938                                         },

```

```

9939         "countdown": {
9940             "type": "number",
9941             "minimum": 0,
9942             "description": "Desired total seconds for countdown"
9943         }
9944     }
9945 }
9946 },
9947 "type": "object",
9948 "allOf": [
9949     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9950     {"$ref": "#/definitions/oic.r.clock"}
9951 ],
9952 "required": ["datetime"]
9953 }
9954
9955 example: /
9956 {
9957     "id": "unique_example_id",
9958     "datetime": "2015-11-05T14:30Z",
9959     "countdown": 0.0
9960 }
9961
9962 responses :
9963 200:
9964     description: |
9965         Indicates that the datetime value was successfully changed.
9966         The new datetime value is provided in the response.
9967
9968     body:
9969         application/json:
9970             schema: /
9971                 {
9972                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9973                 "$schema": "http://json-schema.org/draft-04/schema#",
9974                 "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9975 reserved.",
9976                 "title": "Clock",
9977                 "definitions": {
9978                     "oic.r.clock": {
9979                         "type": "object",
9980                         "properties": {
9981                             "datetime": {
9982                                 "type": "string",
9983                                 "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,
9984 2007-04-05T14:30+09:00)"
9985                             },
9986                             "countdown": {
9987                                 "type": "number",
9988                                 "minimum": 0,
9989                                 "description": "Desired total seconds for countdown"
9990                             }
9991                         }
9992                     }
9993                 },
9994                 "type": "object",
9995                 "allOf": [
9996                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9997                     {"$ref": "#/definitions/oic.r.clock"}
9998                 ],
9999                 "required": ["datetime"]
10000             }
10001
10002 example: /

```

```

10003     {
10004         "id": "unique_example_id",
10005         "datetime": "2015-11-05T14:30Z",
10006         "countdown": 0.0
10007     }
10008
10009     403:
10010         description: |
10011             Indicates that OIC client sent an invalid property value to the server.
10012             The server responds with the required input representation.
10013
10014         body:
10015             application/json:
10016                 schema: /
10017                     {
10018                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
10019                         "$schema": "http://json-schema.org/draft-04/schema#",
10020                         "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
10021 reserved.",
10022                         "title": "Clock",
10023                         "definitions": {
10024                             "oic.r.clock": {
10025                                 "type": "object",
10026                                 "properties": {
10027                                     "datetime": {
10028                                         "type": "string",
10029                                         "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,
10030 2007-04-05T14:30+09:00)"
10031                                     },
10032                                     "countdown": {
10033                                         "type": "number",
10034                                         "minimum": 0,
10035                                         "description": "Desired total seconds for countdown"
10036                                     }
10037                                 }
10038                             },
10039                         },
10040                         "type": "object",
10041                         "allOf": [
10042                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10043                             {"$ref": "#/definitions/oic.r.clock"}
10044                         ],
10045                         "required": ["datetime"]
10046                     }
10047
10048                 example: /
10049                     {
10050                         "id": "unique_example_id",
10051                         "datetime": "2015-11-05T14:30Z",
10052                         "countdown": 0.0
10053                     }
10054

```

6.61.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
countdown	number			Desired total seconds for countdown
datetime	string	yes		Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-05T14:30+09:00)

10056 **6.61.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ClockResURI		get	post		

10057 **6.62 Geolocation**

10058 **6.62.1 Introduction**

10059 This resource describes the properties associated with the current geolocation coordinate.
 10060 Geolocation is a geolocation coordinate data. Latitude is a device's current Latitude coordinate
 10061 (degrees). Longitude is a device's current Longitude coordinate (degrees). Altitude is a device's
 10062 current Altitude position (metres). Accuracy is the accuracy level of the latitude and longitude
 10063 coordinates (metres). altitudeAccuracy is the accuracy level of the altitude coordinates (metres).
 10064 heading is a direction of travel of device (degree). speed is a device's current velocity (metres per
 10065 second).

10066 **6.62.2 Example URI**

10067 /GeolocationResURI

10068 **6.62.3 Resource Type**

10069 The resource type (rt) is defined as: oic.r.sensor.geolocation.

10070 **6.62.4 RAML Definition**

```

10071 #%RAML 0.8
10072 title: OICGeolocation
10073 version: v1.1.0-20160519
10074 traits:
10075   - interface :
10076     queryParameters:
10077       if:
10078         enum: ["oic.if.s", "oic.if.baseline"]
10079
10080 /GeolocationResURI:
10081   description: |
10082     This resource describes the properties associated with the current geolocation coordinate.
10083     Geolocation is a geolocation coordinate data.
10084     Latitude is a device's current Latitude coordinate (degrees).
10085     Longitude is a device's current Longitude coordinate (degrees).
10086     Altitude is a device's current Altitude position (metres).
10087     Accuracy is the accuracy level of the latitude and longitude coordinates (metres).
10088     altitudeAccuracy is the accuracy level of the altitude coordinates (metres).
10089     heading is a direction of travel of device (degree).
10090     speed is a device's current velocity (metres per second).
10091
10092   is : ['interface']
10093   get:
10094     description: |
10095       Retrieves the current geolocation coordinates.
10096
10097   responses :
10098     200:
10099       body:
10100         application/json:
10101           schema: /
10102             {
10103               "id": "http://openinterconnect.org/schemas/oic.r.sensor.geolocation#",
10104               "$schema": "http://json-schema.org/draft-04/schema#",
10105               "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10106 rights reserved.",
  
```



```

10107     "title": "Geolocation",
10108     "definitions": {
10109         "oic.r.sensor.geolocation": {
10110             "type": "object",
10111             "allOf": [
10112                 {"$ref": "oic.r.altimeter.json#/definitions/oic.r.altimeter"},
10113                 {"properties": {
10114                     "latitude": {
10115                         "type": "number",
10116                         "readOnly": true,
10117                         "description": "Device's Current Latitude coordinate (degrees)"
10118                     },
10119                     "longitude": {
10120                         "type": "number",
10121                         "readOnly": true,
10122                         "description": "Device's Current Longitude coordinate (degrees)"
10123                     },
10124                     "accuracy": {
10125                         "type": "number",
10126                         "minimum": 0,
10127                         "readOnly": true,
10128                         "description": "The accuracy level of the latitude and longitude
10129 coordinates (metres)"
10130                     },
10131                     "altitudeAccuracy": {
10132                         "type": "number",
10133                         "minimum": 0,
10134                         "readOnly": true,
10135                         "description": "The accuracy level of the altitude coordinates (metres)"
10136                     },
10137                     "heading": {
10138                         "type": "number",
10139                         "minimum": 0,
10140                         "maximum": 360,
10141                         "readOnly": true,
10142                         "description": "Direction of travel of device (degree)"
10143                     },
10144                     "speed": {
10145                         "type": "number",
10146                         "minimum": 0,
10147                         "readOnly": true,
10148                         "description": "Device's current velocity (metres per second)"
10149                     }
10150                 }
10151             ]
10152         }
10153     },
10154     "type": "object",
10155     "allOf": [
10156         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10157         {"$ref": "#/definitions/oic.r.sensor.geolocation"}
10158     ],
10159     "required": ["latitude", "longitude", "alt"]
10160 }
10161
10162
10163 example: /
10164 {
10165     "rt":          ["oic.r.sensor.geolocation"],
10166     "id":          "unique_example_id",
10167     "latitude":    55.070859,
10168     "longitude":   -3.60512,
10169     "alt":         12.07,
10170     "accuracy":    65.0,
10171     "altitudeAccuracy": 0.0,
10172     "heading":     90.0,
10173     "speed":       0.0
10174 }
10175

```

10176

6.62.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
longitude	number	yes	Read Only	Device's Current Longitude coordinate (degrees)
latitude	number	yes	Read Only	Device's Current Latitude coordinate (degrees)
altitudeAccuracy	number		Read Only	The accuracy level of the altitude coordinates (metres)
speed	number		Read Only	Device's current velocity (metres per second)
heading	number		Read Only	Direction of travel of device (degree)
accuracy	number		Read Only	The accuracy level of the latitude and longitude coordinates (metres)

10177

6.62.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/GeolocationResURI		get			

10178

6.63 Height

10179

6.63.1 Introduction

10180 This resource describes the properties associated with height of an object's physical size. Height
10181 (height) is height of an object.

10182

6.63.2 Example URI

10183

/HeightResURI

10184

6.63.3 Resource Type

10185

The resource type (rt) is defined as: oic.r.height.

10186

6.63.4 RAML Definition

10187

#%RAML 0.8

10188

title: OICHeight

10189

version: v1.1.0-20160519

10190

traits:

10191

- interface :

10192

queryParameters:

10193

if:

10194

enum: ["oic.if.a", "oic.if.baseline"]

10195

10196

/HeightResURI:

10197

description: |

```

10198     This resource describes the properties associated with height of an object's physical size.
10199     Height (height) is height of an object.
10200
10201     is : ['interface']
10202
10203     get:
10204         description: |
10205             Retrieves height of an object.
10206
10207         responses :
10208             200:
10209                 body:
10210                     application/json:
10211                         schema: /
10212                             {
10213                                 "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10214                                 "$schema": "http://json-schema.org/draft-04/schema#",
10215                                 "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
rights reserved.",
10216                                 "title": "Height",
10217                                 "definitions": {
10218                                     "oic.r.height": {
10219                                         "type": "object",
10220                                         "properties": {
10221                                             "height": {
10222                                                 "type": "number",
10223                                                 "minimum": 0,
10224                                                 "description": "Height of an object"
10225                                             }
10226                                         }
10227                                     }
10228                                 },
10229                                 "type": "object",
10230                                 "allOf": [
10231                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10232                                     {"$ref": "#/definitions/oic.r.height"}
10233                                 ],
10234                                 "required": ["height"]
10235                             }
10236
10237                         example: /
10238                             {
10239                                 "rt": ["oic.r.height"],
10240                                 "id": "unique_example_id",
10241                                 "height": 100.0
10242                             }
10243
10244         post:
10245             description: |
10246                 Sets the Height.
10247
10248             body:
10249                 application/json:
10250                     schema: /
10251                         {
10252                             "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10253                             "$schema": "http://json-schema.org/draft-04/schema#",
10254                             "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All rights
reserved.",
10255                             "title": "Height",
10256                             "definitions": {
10257                                 "oic.r.height": {
10258                                     "type": "object",
10259                                     "properties": {
10260

```

```

10261         "height": {
10262             "type": "number",
10263             "minimum": 0,
10264             "description": "Height of an object"
10265         }
10266     }
10267 }
10268 },
10269 "type": "object",
10270 "allOf": [
10271     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10272     {"$ref": "#/definitions/oic.r.height"}
10273 ],
10274 "required": ["height"]
10275 }
10276
10277 example: /
10278 {
10279     "id": "unique_example_id",
10280     "height": 200.0
10281 }
10282
10283 responses :
10284 200:
10285     description: |
10286         Indicates that the height was successfully changed.
10287         The new height is provided in the response.
10288
10289     body:
10290         application/json:
10291             schema: /
10292                 {
10293                     "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10294                     "$schema": "http://json-schema.org/draft-04/schema#",
10295                     "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10296 rights reserved.",
10297                     "title": "Height",
10298                     "definitions": {
10299                         "oic.r.height": {
10300                             "type": "object",
10301                             "properties": {
10302                                 "height": {
10303                                     "type": "number",
10304                                     "minimum": 0,
10305                                     "description": "Height of an object"
10306                                 }
10307                             }
10308                         }
10309                     },
10310                     "type": "object",
10311                     "allOf": [
10312                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10313                         {"$ref": "#/definitions/oic.r.height"}
10314                     ],
10315                     "required": ["height"]
10316                 }
10317
10318             example: /
10319                 {
10320                     "id": "unique_example_id",
10321                     "height": 200.0
10322                 }
10323
10324 403:

```

```

10325     description: |
10326         Indicates that OIC client sent an invalid property value to the server.
10327         The server responds with the current resource representation.
10328
10329     body:
10330         application/json:
10331         schema: /
10332             {
10333             "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10334             "$schema": "http://json-schema.org/draft-04/schema#",
10335             "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10336 rights reserved.",
10337             "title": "Height",
10338             "definitions": {
10339             "oic.r.height": {
10340             "type": "object",
10341             "properties": {
10342             "height": {
10343             "type": "number",
10344             "minimum": 0,
10345             "description": "Height of an object"
10346             }
10347             }
10348             },
10349             },
10350             "type": "object",
10351             "allOf": [
10352             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10353             {"$ref": "#/definitions/oic.r.height"}
10354             ],
10355             "required": ["height"]
10356             }
10357
10358         example: /
10359             {
10360             "id": "unique_example_id",
10361             "height": 200.0
10362             }
10363

```

10364 **6.63.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
height	number	yes		Height of an object

10365 **6.63.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeightResURI		get	post		

10366 **6.64 Weight**

10367 **6.64.1 Introduction**

10368 This resource describes the properties associated with weight of an object. Weight (weight) is
10369 weight of an object.

10370 **6.64.2 Example URI**

10371 /WeightResURI

10372 **6.64.3 Resource Type**

10373 The resource type (rt) is defined as: oic.r.weight.

10374 **6.64.4 RAML Definition**

10375 `##RAML 0.8`

```

10376 title: OICWeight
10377 version: v1.1.0-20160519
10378 traits:
10379 - interface :
10380   queryParameters:
10381     if:
10382       enum: ["oic.if.s", "oic.if.baseline"]
10383
10384 /WeightResURI:
10385   description: |
10386     This resource describes the properties associated with weight of an object.
10387     Weight (weight) is weight of an object.
10388
10389   is : ['interface']
10390   get:
10391     description: |
10392       Retrieves weight of an object.
10393
10394   responses :
10395     200:
10396       body:
10397         application/json:
10398           schema: /
10399             {
10400               "id": "http://openinterconnect.org/schemas/oic.r.weight.json#",
10401               "$schema": "http://json-schema.org/draft-04/schema#",
10402               "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10403 rights reserved.",
10404               "title": "Weight",
10405               "definitions": {
10406                 "oic.r.weight": {
10407                   "type": "object",
10408                   "properties": {
10409                     "weight": {
10410                       "type": "number",
10411                       "minimum": 0,
10412                       "readOnly": true,
10413                       "description": "Weight of an object"
10414                     }
10415                   }
10416                 }
10417             },
10418             "type": "object",
10419             "allOf": [
10420               {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10421               {"$ref": "#/definitions/oic.r.weight"}
10422             ],
10423             "required": ["weight"]
10424           }
10425
10426   example: /
10427     {
10428       "rt": ["oic.r.weight"],
10429       "id": "unique_example_id",
10430       "weight": 200.0
10431     }
10432

```

10433 6.64.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

weight	number	yes	Read Only	Weight of an object
--------	--------	-----	-----------	---------------------

10434 **6.64.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/WeightResURI		get			

10435 **6.65 Air Quality**

10436 **6.65.1 Introduction**

10437 This resource describes a qualitative or measured contaminant that can be used to infer Air Quality.
 10438 Measured is the actual sensed value with units per contaminant type as described below.
 10439 Qualitative is a representative value within the range provided where the minimum value is
 10440 minimum contamination and maximum value is maximum contamination for the specific
 10441 contaminant. The valueType indicates a qualitative or measured reading within the
 10442 contaminantvalue Property. contaminantvalue contains the actual measured or qualitative level.
 10443 range contains the allowed range for the value that is being reported (from oic.r.baseresource). If
 10444 valueType is 'Measured' then the units for the contaminant types are as follows: Methanal (also
 10445 known as Formaldehyde): CH₂O (ug/m³), Carbon Dioxide: CO₂ (ppm), Carbon Monoxide: CO
 10446 (ppm), Particulate Matter (less than 2.5 microns in diameter): PM_{2.5} (ug/m³), Particulate Matter
 10447 (less than 10 microns in diameter): PM₁₀ (ug/m³), Volatile Organic Compounds: VOC (ug/m³)

10448 **6.65.2 Example URI**

10449 /AirQualityResURI

10450 **6.65.3 Resource Type**

10451 The resource type (rt) is defined as: oic.r.airquality.

10452 **6.65.4 RAML Definition**

```

10453 #%RAML 0.8
10454 title: OICAirQuality
10455 version: v1.1.0-20160519
10456 traits:
10457   - interface :
10458     queryParameters:
10459       if:
10460         enum: ["oic.if.s", "oic.if.baseline"]
10461
10462 /AirQualityResURI:
10463   description: |
10464     This resource describes a qualitative or measured contaminant that can be used to infer Air
10465     Quality.
10466     Measured is the actual sensed value with units per contaminant type as described below.
10467     Qualitative is a representative value within the range provided where the minium value is
10468     minimum contamination and maximum value is maximum contamination for the specific contaminant.
10469     The valueType indicates a qualitative or measured reading within the contaminantvalue Property.
10470     contaminantvalue contains the actual measured or qualitative level.
10471     range contains the allowed range for the value that is being reported (from
10472     oic.r.baseresource).
10473     If valueType is 'Measured' then the units for the contaminant types are as follows:
10474     Methanal (also known as Formaldehyde): CH2O (ug/m3),
10475     Carbon Dioxide: CO2 (ppm),
10476     Carbon Monoxide: CO (ppm),
10477     Particulate Matter (less than 2.5 microns in diameter): PM2.5 (ug/m3),
10478     Particulate Matter (less than 10 microns in diameter): PM10 (ug/m3),
10479     Volatile Organic Compounds: VOC (ug/m3)
10480
10481   is : ['interface']
10482   get:
  
```

```

10483     description: |
10484         Retrieves the current air quality.
10485
10486     responses :
10487         200:
10488             body:
10489                 application/json:
10490                 schema: /
10491                     {
10492                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airquality.json#",
10493                         "$schema": "http://json-schema.org/draft-04/schema#",
10494                         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
10495 reserved.",
10496                         "title": "Air Quality",
10497                         "definitions": {
10498                             "oic.r.airquality": {
10499                                 "type": "object",
10500                                 "properties": {
10501                                     "contaminantvalue": {
10502                                         "type": "integer",
10503                                         "readOnly": true,
10504                                         "description": "The measured or qualitative value for the contaminant."
10505                                     },
10506                                     "contaminanttype": {
10507                                         "enum":
10508 ["CH2O", "CO2", "CO", "PM2.5", "PM10", "VOC", "Smoke", "Odor", "AirPollution"],
10509                                         "description": "The contaminant being measured.",
10510                                         "readOnly": true
10511                                     },
10512                                     "valuetype": {
10513                                         "enum": ["Qualitative", "Measured"],
10514                                         "description": "Indicates whether the provided value is qualitative or
10515 measured.",
10516                                         "readOnly": true
10517                                     }
10518                                 }
10519                             },
10520                             "type": "object",
10521                             "allOf": [
10522                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10523                                 {"$ref": "#/definitions/oic.r.airquality"}
10524                             ],
10525                             "required": ["contaminantvalue", "contaminanttype", "valuetype", "range"]
10526                         }
10527                     }
10528
10529     example: /
10530         {
10531             "rt":             ["oic.r.airquality"],
10532             "id":             "unique_example_id",
10533             "contaminanttype": "CO",
10534             "valuetype": "Measured",
10535             "contaminantvalue": 10,
10536             "range": [0,500]
10537         }
10538
10539

```

6.65.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
valuetype	multiple types: see schema	yes	Read Only	Indicates whether the provided value is qualitative or measured.

contaminantvalue	integer	yes	Read Only	The measured or qualitative value for the contaminant.
contaminanttype	multiple types: see schema	yes	Read Only	The contaminant being measured.

10540 **6.65.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirQualityResURI		get			

10541 **6.66 Air Quality Collection**

10542 **6.66.1 Introduction**

10543 This resource describes a sensor that provides the qualitative or measured Air Quality. The
 10544 resource is a collection of instances of oic.r.airquality detailing the individual exposed contaminant
 10545 measures There is one collection entry per contaminant type supported by the device. A device
 10546 must expose at least one measured or qualitative value.

10547 **6.66.2 Example URI**

10548 /AirQualityBaselineResURI

10549 **6.66.3 Resource Type**

10550 The resource type (rt) is defined as: oic.r.airqualitycollection.

10551 **6.66.4 RAML Definition**

```

10552 #%RAML 0.8
10553 title: OICAirQuality
10554 version: v1.1.0-20160519
10555 traits:
10556   - interface-ll :
10557     queryParameters:
10558       if:
10559         enum: ["oic.if.ll"]
10560   - interface-baseline :
10561     queryParameters:
10562       if:
10563         enum: ["oic.if.baseline"]
10564   - interface-all :
10565     queryParameters:
10566       if:
10567         enum: ["oic.if.ll", "oic.if.baseline"]
10568
10569 /AirQualityBaselineResURI:
10570   description: |
10571     This resource describes a sensor that provides the qualitative or measured Air Quality.
10572     The resource is a collection of instances of oic.r.airquality detailing the individual exposed
10573     contaminant measures
10574     There is one collection entry per contaminant type supported by the device
10575     A device must expose at least one measured or qualitative value.
10576
10577   is : ['interface-baseline']
10578   get:
10579     description: |
10580       Retrieves the current air quality.
10581
10582   responses :
```

```

10583     200:
10584     body:
10585         application/json:
10586             schema: /
10587                 {
10588                     "id":
10589 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airqualitycollection.json#",
10590                     "$schema": "http://json-schema.org/draft-04/schema#",
10591                     "description": "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
10592 reserved.",
10593                     "title": "Air Quality Collection",
10594                     "definitions": {
10595                         "oic.r.airqualitycollection": {
10596                             "type": "object",
10597                             "properties": {
10598                                 "rt": {
10599                                     "type": "array",
10600                                     "minItems": 2,
10601                                     "maxItems": 2,
10602                                     "uniqueItems": true,
10603                                     "items": {
10604                                         "enum": ["oic.r.airqualitycollection", "oic.wk.col"]
10605                                     }
10606                                 },
10607                                 "rts": {
10608                                     "type": "array",
10609                                     "minItems": 1,
10610                                     "maxItems": 2,
10611                                     "uniqueItems": true,
10612                                     "items": {
10613                                         "anyOf": [
10614                                             {
10615                                                 "enum": ["oic.r.airquality", "oic.r.value.conditional"]
10616                                             },
10617                                             {
10618                                                 "enum": ["oic.r.airquality"]
10619                                             }
10620                                         ]
10621                                     }
10622                                 }
10623                             }
10624                         }
10625                     },
10626                     "type": "object",
10627                     "allOf": [
10628                         {"$ref": "oic.core.json#/definitions/oic.core"},
10629                         {"$ref": "oic.collection-schema.json#/definitions/oic.collection.properties"},
10630                         {"$ref": "oic.collection-
10631 schema.json#/definitions/oic.collection.links.arrayoflinks"},
10632                         {"$ref": "#/definitions/oic.r.airqualitycollection"}
10633                     ]
10634                 }
10635
10636             example: /
10637                 {
10638                     "rt": ["oic.r.airqualitycollection", "oic.wk.col"],
10639                     "if": ["oic.if.baseline", "oic.if.ll"],
10640                     "id": "unique_example_id",
10641                     "links": [
10642                         {"href": "/myCOMeasureResURI", "rt": ["oic.r.airquality"], "if":
10643 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
10644                         {"href": "/myCO2ResURI", "rt": ["oic.r.airquality"], "if":
10645 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
10646                     ]
10647                 }
10648

```

6.66.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
rts	array: see schema			
links	array: see schema			A set of simple or individual OIC Links.
rt (links)	array: see schema	yes		Resource Type of the Resource
di (links)	string			The Device ID formatted according to IETF RFC 4122.
title (links)	string			A title for the link relation. Can be used by the UI to provide a context.
eps (links)	array: see schema			the Endpoint information of the target Resource
ins (links)	integer			The instance identifier for this web link in an array of web links - used in collections
p (links)	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
href (links)	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI.
rel (links)	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
type (links)	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types

				that are used for both accepting and emitting.
anchor (links)	string			This is used to override the context URI e.g. override the URI of the containing collection.
if (links)	array: schema	see	yes	The interface set supported by this resource

10650 **6.66.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirQualityBaselineResURI		get			

10651 **6.66.7 Referenced JSON schemas**

10652 **6.66.7.1 oic.collection-schema.json**

```

10653 {
10654   "$schema": "http://json-schema.org/draft-04/schema#",
10655   "description" : "Copyright (c) 2016,2018 Open Connectivity Foundation, Inc. All rights
10656 reserved.",
10657   "id": "http://www.openconnectivity.org/ocf-apis/core/schemas/oic.collection-schema.json#",
10658   "title": "Collection",
10659   "definitions": {
10660     "oic.oic-link": {
10661       "type": "object",
10662       "properties": {
10663         "href": {
10664           "type": "string",
10665           "maxLength": 256,
10666           "description": "This is the target URI, it can be specified as a Relative Reference or
10667 fully-qualified URI.",
10668           "format": "uri"
10669         },
10670         "rel": {
10671           "oneOf":[
10672             {
10673               "type": "array",
10674               "items": {
10675                 "type": "string",
10676                 "maxLength": 64
10677               },
10678               "minItems": 1,
10679               "default": ["hosts"]
10680             },
10681             {
10682               "type": "string",
10683               "maxLength": 64,
10684               "default": "hosts"
10685             }
10686           ],
10687           "description": "The relation of the target URI referenced by the link to the context URI"
10688         },
10689         "rt": {
10690           "type": "array",
10691           "items" : {
10692             "type" : "string",
10693             "maxLength": 64
10694           },
10695           "minItems" : 1,
10696           "description": "Resource Type of the Resource"
10697         },
10698         "if": {

```

```

10699         "type": "array",
10700         "items": {
10701             "type": "string",
10702             "enum": ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.rw", "oic.if.r",
10703 "oic.if.a", "oic.if.s" ]
10704         },
10705         "minItems": 1,
10706         "description": "The interface set supported by this resource"
10707     },
10708     "di": {
10709         "description": "The Device ID formatted according to IETF RFC 4122.",
10710         "type": "string",
10711         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
10712 9]{12}$"
10713     },
10714     "p": {
10715         "description": "Specifies the framework policies on the Resource referenced by the target
10716 URI",
10717         "type": "object",
10718         "properties": {
10719             "bm": {
10720                 "description": "Specifies the framework policies on the Resource referenced by the
10721 target URI for e.g. observable and discoverable",
10722                 "type": "integer"
10723             }
10724         },
10725         "required": ["bm"]
10726     },
10727     "title": {
10728         "type": "string",
10729         "maxLength": 64,
10730         "description": "A title for the link relation. Can be used by the UI to provide a
10731 context."
10732     },
10733     "anchor": {
10734         "type": "string",
10735         "maxLength": 256,
10736         "description": "This is used to override the context URI e.g. override the URI of the
10737 containing collection.",
10738         "format": "uri"
10739     },
10740     "ins": {
10741         "type": "integer",
10742         "description": "The instance identifier for this web link in an array of web links - used
10743 in collections"
10744     },
10745     "type": {
10746         "type": "array",
10747         "description": "A hint at the representation of the resource referenced by the target
10748 URI. This represents the media types that are used for both accepting and emitting.",
10749         "items": {
10750             "type": "string",
10751             "maxLength": 64
10752         },
10753         "minItems": 1,
10754         "default": "application/cbor"
10755     },
10756     "eps": {
10757         "type": "array",
10758         "description": "the Endpoint information of the target Resource",
10759         "items": {
10760             "type": "object",
10761             "properties": {
10762                 "ep": {
10763                     "type": "string",
10764                     "format": "uri",
10765                     "description": "Transport Protocol Suite + Endpoint Locator"
10766                 },
10767                 "pri": {
10768                     "type": "integer",
10769                     "minimum": 1,

```

```

10770         "description": "The priority among multiple Endpoints"
10771     }
10772 }
10773 }
10774 },
10775 },
10776 "required": [ "href", "rt", "if" ]
10777 },
10778     "oic.collection.links.arrayoflinks": {
10779     "properties": {
10780     "links": {
10781     "description": "A set of simple or individual OIC Links.",
10782     "type": "array",
10783     "items": {
10784         "type": "object",
10785     "properties": {
10786     "href": {
10787     "type": "string",
10788     "maxLength": 256,
10789     "description": "This is the target URI, it can be specified as a Relative Reference
10790 or fully-qualified URI.",
10791     "format": "uri"
10792     },
10793     "rel": {
10794     "oneOf":[
10795     {
10796     "type": "array",
10797     "items": {
10798     "type": "string",
10799     "maxLength": 64
10800     },
10801     "minItems": 1,
10802     "default": ["hosts"]
10803     },
10804     {
10805     "type": "string",
10806     "maxLength": 64,
10807     "default": "hosts"
10808     }
10809     ],
10810     "description": "The relation of the target URI referenced by the link to the
10811 context URI"
10812     },
10813     "rt": {
10814     "type": "array",
10815     "items": {
10816     "type": "string",
10817     "maxLength": 64
10818     },
10819     "minItems": 1,
10820     "description": "Resource Type of the Resource"
10821     },
10822     "if": {
10823     "type": "array",
10824     "items": {
10825     "type": "string",
10826     "enum": ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.rw", "oic.if.r",
10827 "oic.if.a", "oic.if.s" ]
10828     },
10829     "minItems": 1,
10830     "description": "The interface set supported by this resource"
10831     },
10832     "di": {
10833     "description": "The Device ID formatted according to IETF RFC 4122.",
10834     "type": "string",
10835     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
10836 9]{12}$"
10837     },
10838     "p": {
10839     "description": "Specifies the framework policies on the Resource referenced by the
10840 target URI",

```

```

10841         "type": "object",
10842         "properties": {
10843             "bm": {
10844                 "description": "Specifies the framework policies on the Resource referenced by
10845 the target URI for e.g. observable and discoverable",
10846                 "type": "integer"
10847             }
10848         },
10849         "required" : ["bm"]
10850     },
10851     "title": {
10852         "type": "string",
10853         "maxLength": 64,
10854         "description": "A title for the link relation. Can be used by the UI to provide a
10855 context."
10856     },
10857     "anchor": {
10858         "type": "string",
10859         "maxLength": 256,
10860         "description": "This is used to override the context URI e.g. override the URI of
10861 the containing collection.",
10862         "format": "uri"
10863     },
10864     "ins": {
10865         "type": "integer",
10866         "description": "The instance identifier for this web link in an array of web links
10867 - used in collections"
10868     },
10869     "type": {
10870         "type": "array",
10871         "description": "A hint at the representation of the resource referenced by the
10872 target URI. This represents the media types that are used for both accepting and emitting.",
10873         "items" : {
10874             "type": "string",
10875             "maxLength": 64
10876         },
10877         "minItems": 1,
10878         "default": "application/cbor"
10879     },
10880     "eps": {
10881         "type": "array",
10882         "description": "the Endpoint information of the target Resource",
10883         "items": {
10884             "type": "object",
10885             "properties": {
10886                 "ep": {
10887                     "type": "string",
10888                     "format": "uri",
10889                     "description": "Transport Protocol Suite + Endpoint Locator"
10890                 },
10891                 "pri": {
10892                     "type": "integer",
10893                     "minimum": 1,
10894                     "description": "The priority among multiple Endpoints"
10895                 }
10896             }
10897         }
10898     },
10899     },
10900     "required": [ "href", "rt", "if" ]
10901 }
10902 }
10903 }
10904 },
10905     "oic.core": {
10906         "type": "object",
10907         "properties": {
10908             "rt": {
10909                 "type": "array",
10910                 "items" : {
10911                     "type" : "string",

```

```

10912         "maxLength": 64
10913     },
10914     "minItems" : 1,
10915     "readOnly": true,
10916     "description": "Resource Type of the Resource"
10917 }
10918 },
10919 },
10920 "uuid": {
10921     "description": "Format pattern according to IETF RFC 4122.",
10922     "type": "string",
10923     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$"
10924 },
10925     "oic.collection.links": {
10926     "properties": {
10927         "links": {
10928             "description": "A set of simple or individual OIC Links.",
10929             "type": "array",
10930             "items": {
10931                 "$ref": "#/definitions/oic.oic-link"
10932             }
10933         }
10934     }
10935 },
10936 "oic.collection.properties": {
10937     "type": "object",
10938     "description": "A collection is a set of links along with additional properties to describe
10939 the collection itself",
10940     "properties": {
10941         "rts": {
10942             "$ref": "#/definitions/oic.core/properties/rt",
10943             "description": "The list of allowable resource types (for Target and anchors)
10944 in links included in the collection"
10945         }
10946     }
10947 }
10948 },
10949 "type": "object",
10950 "allOf": [
10951     {"$ref": "oic.core-schema.json#/definitions/oic.core"},
10952     {"$ref": "#/definitions/oic.collection.properties"},
10953     {"$ref": "#/definitions/oic.collection.links"}
10954 ]
10955 }
10956

```

10957 **6.67 Consumable**

10958 **6.67.1 Introduction**

10959 This resource specifies a thing that can be consumed such as filter material, printer toner etc The
10960 type is an enumeration defining the thing being consumed as defined by the Smart Home Device
10961 Specification The remaining is an integer capturing the percentatge remaining life The
10962 orderpercentage is an integer capturing the percentage life at which replacement or replenishment
10963 is recommended by the manufacturer The url is a string containing a URL at which further
10964 information may be obtained with respect to the consumable

10965 **6.67.2 Example URI**

10966 /ConsumableResURI

10967 **6.67.3 Resource Type**

10968 The resource type (rt) is defined as: oic.r.consumable.

10969 **6.67.4 RAML Definition**

10970 **##RAML 0.8**

10971 *title: OICConsumables*

10972 *version: OCF-v1.0.0-20160620*


```

10973 traits:
10974   - interface :
10975     queryParameters:
10976       if:
10977         enum: ["oic.if.s", "oic.if.baseline"]
10978
10979 /ConsumableResURI:
10980   description: |
10981     This resource specifies a thing that can be consumed such as filter material, printer toner etc
10982     The type is an enumeration defining the thing being consumed as defined by the Smart Home
10983 Device Specification
10984     The remaining is an integer capturing the percentatge remaining life
10985     The orderpercentage is an integer capturing the percentage life at which replacement or
10986 replenishment is recommended by the manufacturer
10987     The url is a string containing a URL at which further information may be obtained with respect
10988 to the consumable
10989
10990   is : ['interface']
10991   get:
10992     responses :
10993       200:
10994         body:
10995           application/json:
10996             schema: /
10997               {
10998                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.consumable#",
10999                 "$schema": "http://json-schema.org/draft-04/schema#",
11000                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
11001 reserved.",
11002                 "title": "Consumable",
11003                 "definitions": {
11004                   "oic.r.consumable": {
11005                     "type": "object",
11006                     "properties": {
11007                       "typeofconsumable": {
11008                         "type": "string",
11009                         "description": "Thing that is being consumed.",
11010                         "readOnly": true
11011                       },
11012                       "remaining": {
11013                         "type": "integer",
11014                         "description": "Percentage remaining lifespan.",
11015                         "readOnly": true,
11016                         "minimum": 0,
11017                         "maximum": 100
11018                       },
11019                       "orderpercentage": {
11020                         "type": "integer",
11021                         "description": "Percentage at which re-ordering is recommended by the
11022 manufacturer",
11023                         "readOnly": true,
11024                         "minimum": 0,
11025                         "maximum": 100
11026                       },
11027                       "url": {
11028                         "type": "string",
11029                         "format": "uri",
11030                         "description": "URL at which additional ordering information may be
11031 found.",
11032                         "readOnly": true
11033                       }
11034                     }
11035                   }
11036                 },
11037                 "type": "object",

```

```

11038     "allOf": [
11039         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11040         { "$ref": "#/definitions/oic.r.consumable" }
11041     ],
11042     "required": ["typeofconsumable", "remaining"]
11043 }
11044
11045 example: /
11046 {
11047     "rt":             ["oic.r.consumable"],
11048     "id":             "unique_example_id",
11049     "typeofconsumable": "tonerBlack",
11050     "remaining":      20,
11051     "orderpercentage": 10,
11052     "url":            "http://myreorderURL"
11053 }
11054

```

11055 6.67.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
url	string		Read Only	URL at which additional ordering information may be found.
typeofconsumable	string	yes	Read Only	Thing that is being consumed.
remaining	integer	yes	Read Only	Percentage remaining lifespan.
orderpercentage	integer		Read Only	Percentage at which re-ordering is recommended by the manufacturer

11056 6.67.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ConsumableResURI		get			

11057 6.68 Consumable Collection

11058 6.68.1 Introduction

11059 This resource specifies things that can be consumed such as filter material, printer toner etc. The
11060 resource is a collection of instances of oic.r.consumable detailing the individual consumed items
11061 supportedconsumables is the set of consumable types that this instance of the Resource supports

11062 6.68.2 Example URI

11063 /ConsumablesBaselineResURI

11064 6.68.3 Resource Type

11065 The resource type (rt) is defined as: oic.r.consumablecollection.

11066 6.68.4 RAML Definition

```

11067 #%RAML 0.8
11068 title: OICConsumables
11069 version: OCF-v1.0.0-20160620
11070 traits:
11071   - interface-11 :
11072     queryParameters:

```

```

11073         if:
11074             enum: ["oic.if.ll"]
11075     - interface-baseline :
11076         queryParameters:
11077             if:
11078                 enum: ["oic.if.baseline"]
11079     - interface-all :
11080         queryParameters:
11081             if:
11082                 enum: ["oic.if.ll", "oic.if.baseline"]
11083
11084 /ConsumablesBaselineResURI:
11085     description: |
11086         This resource specifies things that can be consumed such as filter material, printer toner etc
11087         The resource is a collection of instances of oic.r.consumable detailing the individual consumed
11088 items
11089         supportedconsumables is the set of consumable types that this instance of the Resource supports
11090
11091     is : ['interface-baseline']
11092     get:
11093         responses :
11094             200:
11095                 body:
11096                     application/json:
11097                         schema: /
11098                             {
11099                                 "id":
11100 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.consumablecollection#",
11101                                 "$schema": "http://json-schema.org/draft-04/schema#",
11102                                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
11103 reserved.",
11104                                 "title": "Consumables Collection",
11105                                 "definitions": {
11106                                     "oic.r.consumablecollection": {
11107                                         "type": "object",
11108                                         "properties": {
11109                                             "rt": {
11110                                                 "type": "array",
11111                                                 "minItems": 2,
11112                                                 "maxItems": 2,
11113                                                 "uniqueItems": true,
11114                                                 "items": {
11115                                                     "enum": ["oic.r.consumablecollection", "oic.wk.col"]
11116                                                 }
11117                                             },
11118                                             "rts": {
11119                                                 "type": "array",
11120                                                 "minItems": 1,
11121                                                 "maxItems": 2,
11122                                                 "uniqueItems": true,
11123                                                 "items": {
11124                                                     "anyOf": [
11125                                                         {
11126                                                             "enum": ["oic.r.consumable", "oic.r.value.conditional"]
11127                                                         },
11128                                                         {
11129                                                             "enum": ["oic.r.consumable"]
11130                                                         }
11131                                                     ]
11132                                                 }
11133                                             },
11134                                             "supportedconsumables": {
11135                                                 "type": "array",
11136                                                 "description": "Array of possible consumables the device measures.",

```

```

11137         "readOnly": true,
11138         "items": {
11139             "type": "string"
11140         }
11141     }
11142 }
11143 },
11144 },
11145 "type": "object",
11146 "allOf": [
11147     {"$ref": "oic.core.json#/definitions/oic.core"},
11148     {"$ref": "oic.collection-schema.json#/definitions/oic.collection.properties"},
11149     {"$ref": "oic.collection-
11150 schema.json#/definitions/oic.collection.links.arrayoflinks"},
11151     {"$ref": "#/definitions/oic.r.consumablecollection"}
11152 ]
11153 }
11154
11155 example: /
11156 {
11157     "rt": ["oic.r.consumablecollection", "oic.wk.col"],
11158     "id": "unique_example_id",
11159     "rts": ["oic.r.consumable", "oic.r.value.conditional"],
11160     "supportedconsumables": ["tonerBlack", "tonerCyan", "tonerMagenta", "tonerYellow"],
11161     "links": [
11162         {"href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
11163 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11164         {"href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
11165 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11166         {"href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
11167 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11168         {"href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
11169 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
11170     ]
11171 }
11172

```

11173 6.68.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
supportedconsumables	array: see schema		Read Only	Array of possible consumables the device measures.
rts	array: see schema			
links	array: see schema			A set of simple or individual OIC Links.
rt (links)	array: see schema	yes		Resource Type of the Resource
di (links)	string			The Device ID formatted according to IETF RFC 4122.
title (links)	string			A title for the link relation. Can be used by the UI to provide a context.

eps (links)	array: schema	see			the Endpoint information of the target Resource
ins (links)	integer				The instance identifier for this web link in an array of web links - used in collections
p (links)	object: schema	see			Specifies the framework policies on the Resource referenced by the target URI
href (links)	string		yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI.
rel (links)	multiple types: see schema				The relation of the target URI referenced by the link to the context URI
type (links)	array: schema	see			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting.
anchor (links)	string				This is used to override the context URI e.g. override the URI of the containing collection.
if (links)	array: schema	see	yes		The interface set supported by this resource

11174 **6.68.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ConsumablesBaselineResURI		get			

11175 **6.68.7 Referenced JSON schemas**

11176 **6.68.7.1 oic.collection-schema.json**

11177 {
11178 " \$schema": "http://json-schema.org/draft-04/schema#",

```

11179     "description" : "Copyright (c) 2016,2018 Open Connectivity Foundation, Inc. All rights
11180 reserved.",
11181     "id": "http://www.openconnectivity.org/ocf-apis/core/schemas/oic.collection-schema.json#",
11182     "title": "Collection",
11183     "definitions": {
11184       "oic.oic-link": {
11185         "type": "object",
11186         "properties": {
11187           "href": {
11188             "type": "string",
11189             "maxLength": 256,
11190             "description": "This is the target URI, it can be specified as a Relative Reference or
11191 fully-qualified URI.",
11192             "format": "uri"
11193           },
11194           "rel": {
11195             "oneOf":[
11196               {
11197                 "type": "array",
11198                 "items": {
11199                   "type": "string",
11200                   "maxLength": 64
11201                 },
11202                 "minItems": 1,
11203                 "default": ["hosts"]
11204               },
11205               {
11206                 "type": "string",
11207                 "maxLength": 64,
11208                 "default": "hosts"
11209               }
11210             ],
11211             "description": "The relation of the target URI referenced by the link to the context URI"
11212           },
11213           "rt": {
11214             "type": "array",
11215             "items" : {
11216               "type" : "string",
11217               "maxLength": 64
11218             },
11219             "minItems" : 1,
11220             "description": "Resource Type of the Resource"
11221           },
11222           "if": {
11223             "type": "array",
11224             "items": {
11225               "type": "string",
11226               "enum" : ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.rw", "oic.if.r",
11227 "oic.if.a", "oic.if.s" ]
11228             },
11229             "minItems": 1,
11230             "description": "The interface set supported by this resource"
11231           },
11232           "di": {
11233             "description": "The Device ID formatted according to IETF RFC 4122.",
11234             "type": "string",
11235             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
11236 9]{12}$"
11237           },
11238           "p": {
11239             "description": "Specifies the framework policies on the Resource referenced by the target
11240 URI",
11241             "type": "object",
11242             "properties": {
11243               "bm": {
11244                 "description": "Specifies the framework policies on the Resource referenced by the
11245 target URI for e.g. observable and discoverable",
11246                 "type": "integer"
11247               }
11248             },
11249             "required" : ["bm"]

```

```

11250     },
11251     "title": {
11252       "type": "string",
11253       "maxLength": 64,
11254       "description": "A title for the link relation. Can be used by the UI to provide a
11255 context."
11256     },
11257     "anchor": {
11258       "type": "string",
11259       "maxLength": 256,
11260       "description": "This is used to override the context URI e.g. override the URI of the
11261 containing collection.",
11262       "format": "uri"
11263     },
11264     "ins": {
11265       "type": "integer",
11266       "description": "The instance identifier for this web link in an array of web links - used
11267 in collections"
11268     },
11269     "type": {
11270       "type": "array",
11271       "description": "A hint at the representation of the resource referenced by the target
11272 URI. This represents the media types that are used for both accepting and emitting.",
11273       "items": {
11274         "type": "string",
11275         "maxLength": 64
11276       },
11277       "minItems": 1,
11278       "default": "application/cbor"
11279     },
11280     "eps": {
11281       "type": "array",
11282       "description": "the Endpoint information of the target Resource",
11283       "items": {
11284         "type": "object",
11285         "properties": {
11286           "ep": {
11287             "type": "string",
11288             "format": "uri",
11289             "description": "Transport Protocol Suite + Endpoint Locator"
11290           },
11291           "pri": {
11292             "type": "integer",
11293             "minimum": 1,
11294             "description": "The priority among multiple Endpoints"
11295           }
11296         }
11297       }
11298     },
11299     "required": [ "href", "rt", "if" ]
11300   },
11301   "oic.collection.links.arrayoflinks": {
11302     "properties": {
11303       "links": {
11304         "description": "A set of simple or individual OIC Links.",
11305         "type": "array",
11306         "items": {
11307           "type": "object",
11308           "properties": {
11309             "href": {
11310               "type": "string",
11311               "maxLength": 256,
11312               "description": "This is the target URI, it can be specified as a Relative Reference
11313 or fully-qualified URI.",
11314               "format": "uri"
11315             },
11316             "rel": {
11317               "oneOf": [
11318                 {
11319                   "type": "array",

```

```

11321         "items": {
11322             "type": "string",
11323             "maxLength": 64
11324         },
11325         "minItems": 1,
11326         "default": ["hosts"]
11327     },
11328     {
11329         "type": "string",
11330         "maxLength": 64,
11331         "default": "hosts"
11332     }
11333 ],
11334     "description": "The relation of the target URI referenced by the link to the
11335 context URI"
11336 },
11337     "rt": {
11338         "type": "array",
11339         "items": {
11340             "type": "string",
11341             "maxLength": 64
11342         },
11343         "minItems": 1,
11344         "description": "Resource Type of the Resource"
11345     },
11346     "if": {
11347         "type": "array",
11348         "items": {
11349             "type": "string",
11350             "enum": ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.rw", "oic.if.r",
11351 "oic.if.a", "oic.if.s" ]
11352         },
11353         "minItems": 1,
11354         "description": "The interface set supported by this resource"
11355     },
11356     "di": {
11357         "description": "The Device ID formatted according to IETF RFC 4122.",
11358         "type": "string",
11359         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
11360 9]{12}$"
11361     },
11362     "p": {
11363         "description": "Specifies the framework policies on the Resource referenced by the
11364 target URI",
11365         "type": "object",
11366         "properties": {
11367             "bm": {
11368                 "description": "Specifies the framework policies on the Resource referenced by
11369 the target URI for e.g. observable and discoverable",
11370                 "type": "integer"
11371             }
11372         },
11373         "required": ["bm"]
11374     },
11375     "title": {
11376         "type": "string",
11377         "maxLength": 64,
11378         "description": "A title for the link relation. Can be used by the UI to provide a
11379 context."
11380     },
11381     "anchor": {
11382         "type": "string",
11383         "maxLength": 256,
11384         "description": "This is used to override the context URI e.g. override the URI of
11385 the containing collection.",
11386         "format": "uri"
11387     },
11388     "ins": {
11389         "type": "integer",
11390         "description": "The instance identifier for this web link in an array of web links
11391 - used in collections"

```



```

11392     },
11393     "type": {
11394         "type": "array",
11395         "description": "A hint at the representation of the resource referenced by the
11396 target URI. This represents the media types that are used for both accepting and emitting.",
11397         "items": {
11398             "type": "string",
11399             "maxLength": 64
11400         },
11401         "minItems": 1,
11402         "default": "application/cbor"
11403     },
11404     "eps": {
11405         "type": "array",
11406         "description": "the Endpoint information of the target Resource",
11407         "items": {
11408             "type": "object",
11409             "properties": {
11410                 "ep": {
11411                     "type": "string",
11412                     "format": "uri",
11413                     "description": "Transport Protocol Suite + Endpoint Locator"
11414                 },
11415                 "pri": {
11416                     "type": "integer",
11417                     "minimum": 1,
11418                     "description": "The priority among multiple Endpoints"
11419                 }
11420             }
11421         }
11422     },
11423     "required": [ "href", "rt", "if" ]
11424 }
11425 }
11426 }
11427 },
11428 },
11429     "oic.core": {
11430         "type": "object",
11431         "properties": {
11432             "rt": {
11433                 "type": "array",
11434                 "items": {
11435                     "type": "string",
11436                     "maxLength": 64
11437                 },
11438                 "minItems": 1,
11439                 "readOnly": true,
11440                 "description": "Resource Type of the Resource"
11441             }
11442         }
11443     },
11444     "uuid": {
11445         "description": "Format pattern according to IETF RFC 4122.",
11446         "type": "string",
11447         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$"
11448     },
11449     "oic.collection.links": {
11450         "properties": {
11451             "links": {
11452                 "description": "A set of simple or individual OIC Links.",
11453                 "type": "array",
11454                 "items": {
11455                     "$ref": "#/definitions/oic.oic-link"
11456                 }
11457             }
11458         }
11459     },
11460     "oic.collection.properties": {
11461         "type": "object",
11462         "description": "A collection is a set of links along with additional properties to describe

```

```

11463 the collection itself",
11464     "properties": {
11465         "rts": {
11466             "$ref": "#/definitions/oic.core/properties/rt",
11467             "description": "The list of allowable resource types (for Target and anchors)
11468 in links included in the collection"
11469         }
11470     }
11471 },
11472 },
11473 "type": "object",
11474 "allOf": [
11475     {"$ref": "oic.core-schema.json#/definitions/oic.core"},
11476     {"$ref": "#/definitions/oic.collection.properties"},
11477     {"$ref": "#/definitions/oic.collection.links"}
11478 ]
11479 }
11480
11481

```

11482 **6.69 Delay Defrost**

11483 **6.69.1 Introduction**

11484 This resource describes the delay defrost function as defined by the US Energy Star Specifications.
11485 See Energy Star Refrigerator Requirements Version 5 Section 4)G
11486 (<https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf>)
11487 The status is a boolean indicating whether the function is on, if off then defrost is scheduled
11488 as part of normal device operation. startTime, from oir.r.time.period (mandatory) is an ISO8601
11489 encoded start time for the interval in which defrost shall not occur. stopTime, from oic.r.time.period
11490 is an ISO8601 encoded stop time for the interval in which defrost shall not occur. interval, from
11491 oic.r.time.period with additional range restrictions is the time in minutes of the period that starts at
11492 starttime (if not present the default is 240). stopTime and interval are mutually exclusive; they
11493 cannot both be present in a Resource instance
11494

11495 **6.69.2 Example URI**

11496 /DelayDefrostResURI

11497 **6.69.3 Resource Type**

11498 The resource type (rt) is defined as: oic.r.delaydefrost.

11499 **6.69.4 RAML Definition**

```

11500 #%RAML 0.8
11501 title: OICDelayDefrost
11502 version: OCF_v1.0.0-2016_____
11503 traits:
11504   - interface :
11505       queryParameters:
11506           if:
11507               enum: ["oic.if.a", "oic.if.baseline"]
11508
11509 /DelayDefrostResURI:
11510     description: |
11511       This resource describes the delay defrost function as defined by the US Energy Star
11512 Specifications.
11513       See Energy Star Refrigerator Requirements Version 5 Section 4)G
11514
11515 (https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf)
11516 The status is a boolean indicating whether the function is on, if off then defrost is scheduled
11517 as part of normal device operation.
11518 startTime, from oir.r.time.period (mandatory) is an ISO8601 encoded start time for the interval
11519 in which defrost shall not occur.
11520

```

```

11521     stopTime, from oic.r.time.period is an ISO8601 encoded stop time for the interval in which
11522 defrost shall not occur.
11523     interval, from oic.r.time.period with additional range restrictions is the time in minutes of
11524 the period that starts at starttime (if not present the default is 240).
11525     stopTime and interval are mutually exclusive; they cannot both be present in a Resource
11526 instance
11527
11528     is : ['interface']
11529     get:
11530         description: |
11531             Retrieves the current Delay Defrost function status
11532
11533     responses :
11534         200:
11535             body:
11536                 application/json:
11537                     schema: /
11538                         {
11539                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11540                             "$schema": "http://json-schema.org/draft-04/schema#",
11541                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11542 rights reserved.",
11543                             "title": "Delay Defrost",
11544                             "definitions": {
11545                                 "oic.r.delaydefrost": {
11546                                     "type": "object",
11547                                     "allOf": [
11548                                         {
11549                                             "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11550                                         },
11551                                         {
11552                                             "properties": {
11553                                                 "interval": {
11554                                                     "type": "integer",
11555                                                     "description": "Defrost interval as defined by Energy Star",
11556                                                     "minimum": 1,
11557                                                     "maximum": 1440,
11558                                                     "default": 240
11559                                                 },
11560                                                 "status": {
11561                                                     "type": "boolean",
11562                                                     "description": "Indicates whether any supported delay defrost function
11563 is active"
11564                                                 }
11565                                             },
11566                                             "required": ["status"]
11567                                         }
11568                                     ]
11569                                 }
11570                             },
11571                             "type": "object",
11572                             "allOf": [
11573                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11574                                 {"$ref": "#/definitions/oic.r.delaydefrost"}
11575                             ]
11576                         }
11577
11578     example: /
11579         {
11580             "rt": ["oic.r.delaydefrost"],
11581             "id": "unique_example_id",
11582             "startTime": "06:00Z",
11583             "status": false
11584         }
11585

```

```

11586     post:
11587         description: |
11588             Activates the desired Delay Defrost functions
11589
11590     body:
11591         application/json:
11592             schema: /
11593                 {
11594                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11595                     "$schema": "http://json-schema.org/draft-04/schema#",
11596                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11597 reserved.",
11598                     "title": "Delay Defrost",
11599                     "definitions": {
11600                         "oic.r.delaydefrost": {
11601                             "type": "object",
11602                             "allOf": [
11603                                 {
11604                                     "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11605                                 },
11606                                 {
11607                                     "properties": {
11608                                         "interval": {
11609                                             "type": "integer",
11610                                             "description": "Defrost interval as defined by Energy Star",
11611                                             "minimum": 1,
11612                                             "maximum": 1440,
11613                                             "default": 240
11614                                         },
11615                                         "status": {
11616                                             "type": "boolean",
11617                                             "description": "Indicates whether any supported delay defrost function is
11618 active"
11619                                         }
11620                                     },
11621                                     "required": ["status"]
11622                                 }
11623                             ]
11624                         }
11625                     },
11626                     "type": "object",
11627                     "allOf": [
11628                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11629                         {"$ref": "#/definitions/oic.r.delaydefrost"}
11630                     ]
11631                 }
11632
11633     example: /
11634         {
11635             "id":          "unique_example_id",
11636             "status":     true,
11637             "startTime": "06:00Z",
11638             "interval":   180
11639         }
11640
11641     responses :
11642         200:
11643             description: |
11644                 Indicates that the DelayDefrost function was changed.
11645                 The new representation may be provided in the response.
11646
11647         body:
11648             application/json:
11649                 schema: /

```

```

11650     {
11651         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11652         "$schema": "http://json-schema.org/draft-04/schema#",
11653         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11654 rights reserved.",
11655         "title": "Delay Defrost",
11656         "definitions": {
11657             "oic.r.delaydefrost": {
11658                 "type": "object",
11659                 "allOf": [
11660                     {
11661                         "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11662                     },
11663                     {
11664                         "properties": {
11665                             "interval": {
11666                                 "type": "integer",
11667                                 "description": "Defrost interval as defined by Energy Star",
11668                                 "minimum": 1,
11669                                 "maximum": 1440,
11670                                 "default": 240
11671                             },
11672                             "status": {
11673                                 "type": "boolean",
11674                                 "description": "Indicates whether any supported delay defrost function
11675 is active"
11676                             }
11677                         },
11678                         "required": ["status"]
11679                     }
11680                 ]
11681             }
11682         },
11683         "type": "object",
11684         "allOf": [
11685             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11686             {"$ref": "#/definitions/oic.r.delaydefrost"}
11687         ]
11688     }
11689
11690     example: /
11691     {
11692         "id": "unique_example_id",
11693         "status": true,
11694         "startTime": "06:00Z",
11695         "interval": 180
11696     }
11697
11698     403:
11699     description: |
11700     Indicates the update to the time properties was rejected.
11701     Reasons for rejection:
11702     invalid time entry
11703     The current unchanged representation may be provided in the response.
11704
11705     body:
11706     application/json:
11707     schema: /
11708     {
11709         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11710         "$schema": "http://json-schema.org/draft-04/schema#",
11711         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11712 rights reserved.",
11713         "title": "Delay Defrost",
11714         "definitions": {
11715             "oic.r.delaydefrost": {
11716                 "type": "object",

```

```

11717         "allOf": [
11718             {
11719                 "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11720             },
11721             {
11722                 "properties": {
11723                     "interval": {
11724                         "type": "integer",
11725                         "description": "Defrost interval as defined by Energy Star",
11726                         "minimum": 1,
11727                         "maximum": 1440,
11728                         "default": 240
11729                     },
11730                     "status": {
11731                         "type": "boolean",
11732                         "description": "Indicates whether any supported delay defrost function
11733 is active"
11734                     }
11735                 },
11736                 "required": ["status"]
11737             }
11738         ]
11739     },
11740 },
11741 "type": "object",
11742 "allOf": [
11743     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11744     {"$ref": "#/definitions/oic.r.delaydefrost"}
11745 ]
11746 }
11747
11748 example: /
11749 {
11750     "id":         "unique_example_id",
11751     "status":     true,
11752     "startTime": "06:00Z",
11753     "interval":  180
11754 }
11755

```

6.69.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
status	boolean	yes		Indicates whether any supported delay defrost function is active
interval	integer			Defrost interval as defined by Energy Star
stopTime	string			Stop time for the time period, if present interval cannot be present
startTime	string	yes		Start time for the time period
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

11757 **6.69.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DelayDefrostResURI		get	post		

11758 **6.69.7 Referenced JSON schemas**

11759 **6.69.7.1 oic.r.time.period.json**

```

11760 {
11761   "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
11762   "$schema": "http://json-schema.org/draft-04/schema#",
11763   "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11764 reserved.",
11765   "title": "Time Period",
11766   "definitions": {
11767     "oic.r.time.period": {
11768       "type": "object",
11769       "properties": {
11770         "startTime": {
11771           "type": "string",
11772           "description": "Start time for the time period"
11773         },
11774         "stopTime": {
11775           "type": "string",
11776           "description": "Stop time for the time period, if present interval cannot be present"
11777         },
11778         "interval": {
11779           "type": "integer",
11780           "description": "Time interval in minutes after the startTime, if present stopTime cannot
11781 be present"
11782         }
11783       },
11784       "required": ["startTime"]
11785     }
11786   },
11787   "type": "object",
11788   "allOf": [
11789     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11790     {"$ref": "#/definitions/oic.r.time.period"}
11791   ]
11792 }
11793

```

11794 **6.70 Eco Mode**

11795 **6.70.1 Introduction**

11796 This resource specifies the supported and currently active Eco Mode of a Device The Resource
 11797 uses the existing schema for Mode (oic.r.mode) with a restriction that the population of
 11798 supportedmodes and modes Properties is restricted to the set of values given below:
 11799 "disabled","enabled","notsupported" The adminforced Property indicates that the value has been
 11800 set by another party (e.g. via some offboard Smart Energy interaction)

11801 **6.70.2 Example URI**

11802 /EcomodeResURI

11803 **6.70.3 Resource Type**

11804 The resource type (rt) is defined as: oic.r.ecomode.

11805 **6.70.4 RAML Definition**

```

11806 #%RAML 0.8
11807 title: OICEcomode
11808 version: OCF-v1.0.0-20160620
11809 traits:
11810   - interface :
11811     queryParameters:

```

```

11812     if:
11813         enum: ["oic.if.a", "oic.if.baseline"]
11814
11815 /EcomodeResURI:
11816     description: |
11817         This resource specifies the supported and currently active Eco Mode of a Device
11818         The Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the
11819         population of supportedmodes and modes Properties is restricted to the set of values given below:
11820         "disabled","enabled","notsupported"
11821         The adminforced Property indicates that the value has been set by another party (e.g
11822         via some offboard Smart Energy interaction)
11823
11824     is : ['interface']
11825     get:
11826         responses :
11827             200:
11828                 body:
11829                     application/json:
11830                         schema: /
11831                             {
11832                                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode#",
11833                                 "$schema": "http://json-schema.org/draft-04/schema#",
11834                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11835                                 rights reserved.",
11836                                 "title": "Eco Mode",
11837                                 "definitions": {
11838                                     "oic.r.ecomode": {
11839                                         "type": "object",
11840                                         "allOf": [
11841                                             {
11842                                                 "$ref": "oic.r.mode.json#/definitions/oic.r.mode"
11843                                             },
11844                                             {
11845                                                 "properties": {
11846                                                     "adminforced": {
11847                                                         "type": "boolean",
11848                                                         "readOnly": true,
11849                                                         "description": "Indicator that the current mode of operation has
11850                                                         been forced by admin action."
11851                                                     }
11852                                                 }
11853                                             }
11854                                         ]
11855                                     }
11856                                 },
11857                                 "type": "object",
11858                                 "allOf": [
11859                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11860                                     {"$ref": "#/definitions/oic.r.ecomode"}
11861                                 ],
11862                                 "required": ["supportedModes","modes"]
11863                             }
11864
11865                         example: /
11866                             {
11867                                 "rt":             ["oic.r.ecomode"],
11868                                 "id":             "unique_example_id",
11869                                 "supportedModes": ["disabled","enabled"],
11870                                 "modes":         ["disabled"],
11871                                 "adminforced":    false
11872                             }
11873
11874     post:
11875         body:

```



```

11876     application/json:
11877         schema: /
11878             {
11879                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode-Update#",
11880                 "$schema": "http://json-schema.org/draft-04/schema#",
11881                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11882 reserved.",
11883                 "title": "Eco Mode",
11884                 "definitions": {
11885                     "oic.r.ecomode": {
11886                         "type": "object",
11887                         "allOf": [
11888                             {
11889                                 "$ref": "oic.r.mode-update.json#/definitions/oic.r.mode"
11890                             }
11891                         ]
11892                     }
11893                 },
11894                 "type": "object",
11895                 "allOf": [
11896                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11897                     {"$ref": "#/definitions/oic.r.ecomode"}
11898                 ],
11899                 "required": ["modes"]
11900             }
11901
11902         example: /
11903             {
11904                 "id": "unique_example_id",
11905                 "modes": ["enabled"]
11906             }
11907
11908     responses :
11909         200:
11910             body:
11911                 application/json:
11912                     schema: /
11913                         {
11914                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode-Update#",
11915                             "$schema": "http://json-schema.org/draft-04/schema#",
11916                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11917 rights reserved.",
11918                             "title": "Eco Mode",
11919                             "definitions": {
11920                                 "oic.r.ecomode": {
11921                                     "type": "object",
11922                                     "allOf": [
11923                                         {
11924                                             "$ref": "oic.r.mode-update.json#/definitions/oic.r.mode"
11925                                         }
11926                                     ]
11927                                 }
11928                             },
11929                             "type": "object",
11930                             "allOf": [
11931                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11932                                 {"$ref": "#/definitions/oic.r.ecomode"}
11933                             ],
11934                             "required": ["modes"]
11935                         }
11936
11937                     example: /
11938                         {
11939                             "id": "unique_example_id",
11940                             "modes": ["enabled"]

```

11941 }
 11942

11943 **6.70.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
adminforced	boolean		Read Only	Indicator that the current mode of operation has been forced by admin action.
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
modes	array: see schema	yes		Array of the currently active mode(s)

11944 **6.70.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EcomodeResURI		get	post		

11945 **6.70.7 Referenced JSON schemas**

11946 **6.70.7.1 oic.r.mode.json**

```

11947 {
11948   "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",
11949   "$schema": "http://json-schema.org/draft-04/schema#",
11950   "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11951 reserved.",
11952   "title": "Mode",
11953   "definitions": {
11954     "oic.r.mode": {
11955       "type": "object",
11956       "properties": {
11957         "supportedModes": {
11958           "type": "array",
11959           "readOnly": true,
11960           "description": "Array of possible modes the device supports.",
11961           "items": {
11962             "type": "string"
11963           }
11964         },
11965         "modes": {
11966           "type": "array",
11967           "description": "Array of the currently active mode(s)",
11968           "items": {
11969             "type": "string"
11970           }
11971         }
11972       }
11973     },
11974   },
11975   "type": "object",
11976   "allOf": [
11977     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11978     {"$ref": "#/definitions/oic.r.mode"}
11979   ],
11980   "required": ["supportedModes", "modes"]
11981 }
11982
  
```

11983 **6.71 Heating Zone**

11984 **6.71.1 Introduction**

11985 This Resource provides information about the status of a heating zone of a Cook-Top. It describes
11986 the case of a Cook-Top whose zones can be activated dynamically (i.e. the device implements pot
11987 recognition). maxheatinglevel defines the max level for the heating zone heatinglevel is the current
11988 heating level of the zone For each element the value range is from 0 (indication that the zone is
11989 not heating) to maxheatinglevel,

11990 **6.71.2 Example URI**

11991 /HeatingZoneResURI

11992 **6.71.3 Resource Type**

11993 The resource type (rt) is defined as: oic.r.heatingzone.

11994 **6.71.4 RAML Definition**

11995 `##RAML 0.8`

11996 `title: OICHeatingZone`
11997 `version: OCF1.0-20160722`

11998 `traits:`
11999 `- interface :`
12000 `queryParameters:`
12001 `if:`
12002 `enum: ["oic.if.s", "oic.if.baseline"]`

12003

12004 `/HeatingZoneResURI:`

12005 `description: |`
12006 `This Resource provides information about the status of a heating zone of a Cook-Top.`
12007 `It describes the case of a Cook-Top whose zones can be activated dynamically (i.e`
12008 `the device implements pot recognition).`
12009 `maxheatinglevel defines the max level for the heating zone`
12010 `heatinglevel is the current heating level of the zone`
12011 `For each element the value range is from 0 (indication that the zone is not heating) to`
12012 `maxheatinglevel,`
12013

12014 `is : ['interface']`

12015 `get:`
12016 `description: |`
12017 `Retrieves the current heating zone information.`
12018

12019 `responses :`

12020 `200:`

12021 `body:`
12022 `application/json:`

12023 `schema: |`
12024 `{`
12025 `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.heatingzone.json#",`
12026 `"$schema": "http://json-schema.org/draft-04/schema#",`
12027 `"description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights`
12028 `reserved.",`
12029 `"title": "Heating Zone",`
12030 `"definitions": {`
12031 `"oic.r.heatingzone": {`
12032 `"type": "object",`
12033 `"properties": {`
12034 `"maxheatinglevel": {`
12035 `"type": "integer",`
12036 `"readOnly": true,`
12037 `"description": "Maximum heating level for the zone indicated."`

```

12038     },
12039     "heatinglevel": {
12040       "type": "integer",
12041       "readOnly": true,
12042       "description": "Current heating level for the zone indicated."
12043     }
12044   }
12045 }
12046 },
12047 "type": "object",
12048 "allOf": [
12049   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12050   {"$ref": "#/definitions/oic.r.heatingzone"}
12051 ],
12052 "required": ["maxheatinglevel", "heatinglevel"]
12053 }
12054
12055 example: /
12056 {
12057   "rt":          ["oic.r.heatingzone"],
12058   "id":          "unique_example_id",
12059   "maxheatinglevel": 6,
12060   "heatinglevel": 0
12061 }
12062

```

12063 **6.71.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
heatinglevel	integer	yes	Read Only	Current heating level for the zone indicated.
maxheatinglevel	integer	yes	Read Only	Maximum heating level for the zone indicated.

12064 **6.71.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneResURI		get			

12065 **6.72 Heating Zone Collection**

12066 **6.72.1 Introduction**

12067 This Resource provides information about the status of the heating zones of a Cook-Top. It
 12068 describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device
 12069 implements pot recognition). The resource is a collection of instances of oic.r.heatingzone detailing
 12070 the individual cooktop zones

12071 **6.72.2 Example URI**

12072 /HeatingZoneBaselineResURI

12073 **6.72.3 Resource Type**

12074 The resource type (rt) is defined as: oic.r.heatingzonecollection.

12075 **6.72.4 RAML Definition**

```

12076 #%RAML 0.8
12077 title: OICHeatingZone
12078 version: OCF1.0-20160722
12079 traits:
12080   - interface-11 :
12081     queryParameters:
12082       if:

```

```

12083         enum: ["oic.if.ll"]
12084 - interface-baseline :
12085     queryParameters:
12086         if:
12087             enum: ["oic.if.baseline"]
12088 - interface-all :
12089     queryParameters:
12090         if:
12091             enum: ["oic.if.ll", "oic.if.baseline"]
12092
12093 /HeatingZoneBaselineResURI:
12094     description: |
12095         This Resource provides information about the status of the heating zones of a Cook-Top.
12096         It describes the case of a Cook-Top whose zones can be activated dynamically (i.e
12097         the device implements pot recognition).
12098         The resource is a collection of instances of oic.r.heatingzone detailing the individual cooktop
12099         zones
12100
12101     is : ['interface-baseline']
12102     get:
12103         description: |
12104             Retrieves the current heating zone information.
12105
12106     responses :
12107         200:
12108             body:
12109                 application/json:
12110                     schema: /
12111                         {
12112                             "id":
12113 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.heatingzonecollection.json#",
12114                             "$schema": "http://json-schema.org/draft-04/schema#",
12115                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12116 reserved.",
12117                             "title": "Heating Zone Collection",
12118                             "definitions": {
12119                                 "oic.r.heatingzonecollection": {
12120                                     "type": "object",
12121                                     "properties": {
12122                                         "rt": {
12123                                             "type": "array",
12124                                             "minItems": 2,
12125                                             "maxItems": 2,
12126                                             "uniqueItems": true,
12127                                             "items": {
12128                                                 "enum": ["oic.r.heatingzonecollection", "oic.wk.col"]
12129                                             }
12130                                         },
12131                                         "rts": {
12132                                             "type": "array",
12133                                             "minItems": 1,
12134                                             "maxItems": 2,
12135                                             "uniqueItems": true,
12136                                             "items": {
12137                                                 "anyOf": [
12138                                                     {
12139                                                         "enum": ["oic.r.heatingzone", "oic.r.value.conditional"]
12140                                                     },
12141                                                     {
12142                                                         "enum": ["oic.r.heatingzone"]
12143                                                     }
12144                                                 ]
12145                                             }
12146                                         }
12147                                     }
12148                                 }
12149                             }
12150                         }

```

```

12145     }
12146   }
12147 }
12148 },
12149 },
12150 "type": "object",
12151 "allOf": [
12152   {"$ref": "oic.core.json#/definitions/oic.core"},
12153   {"$ref": "oic.collection-schema.json#/definitions/oic.collection.properties"},
12154   {"$ref": "oic.collection-
12155 schema.json#/definitions/oic.collection.links.arrayoflinks"},
12156   {"$ref": "#/definitions/oic.r.heatingzonecollection"}
12157 ]
12158 }
12159
12160 example: /
12161 {
12162   "rt": ["oic.r.heatingzonecollection", "oic.wk.col"],
12163   "id": "unique_example_id",
12164   "links": [
12165     {"href": "/myZone1ResURI", "rt": ["oic.r.heatingzone"], "if":
12166 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
12167     {"href": "/myZone2ResURI", "rt": ["oic.r.heatingzone"], "if":
12168 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
12169     {"href": "/myZone3ResURI", "rt": ["oic.r.heatingzone"], "if":
12170 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
12171     {"href": "/myZone4ResURI", "rt": ["oic.r.heatingzone"], "if":
12172 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
12173   ]
12174 }
12175

```

6.72.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
rts	array: see schema			
links	array: see schema			A set of simple or individual OIC Links.
rt (links)	array: see schema	yes		Resource Type of the Resource
di (links)	string			The Device ID formatted according to IETF RFC 4122.
title (links)	string			A title for the link relation. Can be used by the UI to provide a context.
eps (links)	array: see schema			the Endpoint information of the target Resource
ins (links)	integer			The instance identifier for this web link in an array of web links

				- used in collections
p (links)	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
href (links)	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI.
rel (links)	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
type (links)	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting.
anchor (links)	string			This is used to override the context URI e.g. override the URI of the containing collection.
if (links)	array: see schema	yes		The interface set supported by this resource

12177 **6.72.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneBaselineResURI		get			

12178 **6.72.7 Referenced JSON schemas**

12179 **6.72.7.1 oic.collection-schema.json**

```

12180 {
12181   "$schema": "http://json-schema.org/draft-04/schema#",
12182   "description": "Copyright (c) 2016,2018 Open Connectivity Foundation, Inc. All rights
12183 reserved.",
12184   "id": "http://www.openconnectivity.org/ocf-apis/core/schemas/oic.collection-schema.json#",
12185   "title": "Collection",
12186   "definitions": {
12187     "oic.oic-link": {
12188       "type": "object",
12189       "properties": {
12190         "href": {
12191           "type": "string",

```

```

12192         "maxLength": 256,
12193         "description": "This is the target URI, it can be specified as a Relative Reference or
12194 fully-qualified URI.",
12195         "format": "uri"
12196     },
12197     "rel": {
12198         "oneOf": [
12199             {
12200                 "type": "array",
12201                 "items": {
12202                     "type": "string",
12203                     "maxLength": 64
12204                 },
12205                 "minItems": 1,
12206                 "default": ["hosts"]
12207             },
12208             {
12209                 "type": "string",
12210                 "maxLength": 64,
12211                 "default": "hosts"
12212             }
12213         ],
12214         "description": "The relation of the target URI referenced by the link to the context URI"
12215     },
12216     "rt": {
12217         "type": "array",
12218         "items": {
12219             "type": "string",
12220             "maxLength": 64
12221         },
12222         "minItems": 1,
12223         "description": "Resource Type of the Resource"
12224     },
12225     "if": {
12226         "type": "array",
12227         "items": {
12228             "type": "string",
12229             "enum": ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.rw", "oic.if.r",
12230 "oic.if.a", "oic.if.s"]
12231         },
12232         "minItems": 1,
12233         "description": "The interface set supported by this resource"
12234     },
12235     "di": {
12236         "description": "The Device ID formatted according to IETF RFC 4122.",
12237         "type": "string",
12238         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
12239 9]{12}$"
12240     },
12241     "p": {
12242         "description": "Specifies the framework policies on the Resource referenced by the target
12243 URI",
12244         "type": "object",
12245         "properties": {
12246             "bm": {
12247                 "description": "Specifies the framework policies on the Resource referenced by the
12248 target URI for e.g. observable and discoverable",
12249                 "type": "integer"
12250             }
12251         },
12252         "required": ["bm"]
12253     },
12254     "title": {
12255         "type": "string",
12256         "maxLength": 64,
12257         "description": "A title for the link relation. Can be used by the UI to provide a
12258 context."
12259     },
12260     "anchor": {
12261         "type": "string",
12262         "maxLength": 256,

```



```

12263         "description": "This is used to override the context URI e.g. override the URI of the
12264 containing collection.",
12265         "format": "uri"
12266     },
12267     "ins": {
12268         "type": "integer",
12269         "description": "The instance identifier for this web link in an array of web links - used
12270 in collections"
12271     },
12272     "type": {
12273         "type": "array",
12274         "description": "A hint at the representation of the resource referenced by the target
12275 URI. This represents the media types that are used for both accepting and emitting.",
12276         "items": {
12277             "type": "string",
12278             "maxLength": 64
12279         },
12280         "minItems": 1,
12281         "default": "application/cbor"
12282     },
12283     "eps": {
12284         "type": "array",
12285         "description": "the Endpoint information of the target Resource",
12286         "items": {
12287             "type": "object",
12288             "properties": {
12289                 "ep": {
12290                     "type": "string",
12291                     "format": "uri",
12292                     "description": "Transport Protocol Suite + Endpoint Locator"
12293                 },
12294                 "pri": {
12295                     "type": "integer",
12296                     "minimum": 1,
12297                     "description": "The priority among multiple Endpoints"
12298                 }
12299             }
12300         }
12301     },
12302 },
12303 "required": [ "href", "rt", "if" ]
12304 },
12305     "oic.collection.links.arrayoflinks": {
12306         "properties": {
12307             "links": {
12308                 "description": "A set of simple or individual OIC Links.",
12309                 "type": "array",
12310                 "items": {
12311                     "type": "object",
12312                     "properties": {
12313                         "href": {
12314                             "type": "string",
12315                             "maxLength": 256,
12316                             "description": "This is the target URI, it can be specified as a Relative Reference
12317 or fully-qualified URI.",
12318                             "format": "uri"
12319                         },
12320                         "rel": {
12321                             "oneOf": [
12322                                 {
12323                                     "type": "array",
12324                                     "items": {
12325                                         "type": "string",
12326                                         "maxLength": 64
12327                                     },
12328                                     "minItems": 1,
12329                                     "default": ["hosts"]
12330                                 },
12331                                 {
12332                                     "type": "string",
12333                                     "maxLength": 64,

```

```

12334         "default": "hosts"
12335     }
12336 ],
12337     "description": "The relation of the target URI referenced by the link to the
12338 context URI"
12339 },
12340     "rt": {
12341         "type": "array",
12342         "items": {
12343             "type": "string",
12344             "maxLength": 64
12345         },
12346         "minItems": 1,
12347         "description": "Resource Type of the Resource"
12348     },
12349     "if": {
12350         "type": "array",
12351         "items": {
12352             "type": "string",
12353             "enum": ["oic.if.baseline", "oic.if.ll1", "oic.if.b", "oic.if.rw", "oic.if.r",
12354 "oic.if.a", "oic.if.s" ]
12355         },
12356         "minItems": 1,
12357         "description": "The interface set supported by this resource"
12358     },
12359     "di": {
12360         "description": "The Device ID formatted according to IETF RFC 4122.",
12361         "type": "string",
12362         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
12363 9]{12}$"
12364     },
12365     "p": {
12366         "description": "Specifies the framework policies on the Resource referenced by the
12367 target URI",
12368         "type": "object",
12369         "properties": {
12370             "bm": {
12371                 "description": "Specifies the framework policies on the Resource referenced by
12372 the target URI for e.g. observable and discoverable",
12373                 "type": "integer"
12374             }
12375         },
12376         "required": ["bm"]
12377     },
12378     "title": {
12379         "type": "string",
12380         "maxLength": 64,
12381         "description": "A title for the link relation. Can be used by the UI to provide a
12382 context."
12383     },
12384     "anchor": {
12385         "type": "string",
12386         "maxLength": 256,
12387         "description": "This is used to override the context URI e.g. override the URI of
12388 the containing collection.",
12389         "format": "uri"
12390     },
12391     "ins": {
12392         "type": "integer",
12393         "description": "The instance identifier for this web link in an array of web links
12394 - used in collections"
12395     },
12396     "type": {
12397         "type": "array",
12398         "description": "A hint at the representation of the resource referenced by the
12399 target URI. This represents the media types that are used for both accepting and emitting.",
12400         "items": {
12401             "type": "string",
12402             "maxLength": 64
12403         },
12404         "minItems": 1,

```

```

12405         "default": "application/cbor"
12406     },
12407     "eps": {
12408         "type": "array",
12409         "description": "the Endpoint information of the target Resource",
12410         "items": {
12411             "type": "object",
12412             "properties": {
12413                 "ep": {
12414                     "type": "string",
12415                     "format": "uri",
12416                     "description": "Transport Protocol Suite + Endpoint Locator"
12417                 },
12418                 "pri": {
12419                     "type": "integer",
12420                     "minimum": 1,
12421                     "description": "The priority among multiple Endpoints"
12422                 }
12423             }
12424         }
12425     },
12426     "required": [ "href", "rt", "if" ]
12427 },
12428 },
12429 },
12430 },
12431 },
12432     "oic.core": {
12433         "type": "object",
12434         "properties": {
12435             "rt": {
12436                 "type": "array",
12437                 "items": {
12438                     "type": "string",
12439                     "maxLength": 64
12440                 },
12441                 "minItems": 1,
12442                 "readOnly": true,
12443                 "description": "Resource Type of the Resource"
12444             }
12445         }
12446     },
12447     "uuid": {
12448         "description": "Format pattern according to IETF RFC 4122.",
12449         "type": "string",
12450         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$"
12451     },
12452     "oic.collection.links": {
12453         "properties": {
12454             "links": {
12455                 "description": "A set of simple or individual OIC Links.",
12456                 "type": "array",
12457                 "items": {
12458                     "$ref": "#/definitions/oic.oic-link"
12459                 }
12460             }
12461         }
12462     },
12463     "oic.collection.properties": {
12464         "type": "object",
12465         "description": "A collection is a set of links along with additional properties to describe
12466 the collection itself",
12467         "properties": {
12468             "rts": {
12469                 "$ref": "#/definitions/oic.core/properties/rt",
12470                 "description": "The list of allowable resource types (for Target and anchors)
12471 in links included in the collection"
12472             }
12473         }
12474     },
12475 },

```

```

12476     "type": "object",
12477     "allOf": [
12478       {"$ref": "oic.core-schema.json#/definitions/oic.core"},
12479       {"$ref": "#/definitions/oic.collection.properties"},
12480       {"$ref": "#/definitions/oic.collection.links"}
12481     ]
12482   }
12483 }

```

12484 **6.73 Selectable Levels**

12485 **6.73.1 Introduction**

12486 This Resource provides a set of device defined 'levels' that can be selected for an operation. For
 12487 example where a humidifier has a discrete set that model different humidity levels that can be set.
 12488 availablelevels is an array of the levels that can be selected, these can be a number or an integer.
 12489 targetlevel is the level that has currently been selected and is written to in order to select a new
 12490 level. When retrieved the targetlevel provides the actual value that has been selected.

12491 **6.73.2 Example URI**

12492 /SelectableLevelsResURI

12493 **6.73.3 Resource Type**

12494 The resource type (rt) is defined as: oic.r.selectablelevels.

12495 **6.73.4 RAML Definition**

```

12496 #%RAML 0.8
12497 title: OICSelectableLevels
12498 version: v1.1.0-20160519
12499 traits:
12500   - interface :
12501     queryParameters:
12502       if:
12503         enum: ["oic.if.a", "oic.if.baseline"]
12504
12505 /SelectableLevelsResURI:
12506   description: |
12507     This Resource provides a set of device defined 'levels' that can be selected for an operation.
12508     For example where a humidifier has a discrete set that model different humidity levels that can
12509     be set.
12510     availablelevels is an array of the levels that can be selected, these can be a number or an
12511     integer.
12512     targetlevel is the level that has currently been selected and is written to in order to select
12513     a new level.
12514     When retrieved the targetlevel provides the actual value that has been selected.
12515
12516   is : ['interface']
12517   get:
12518     description: |
12519       Retrieves the current selectable levels.
12520
12521   responses :
12522     200:
12523       body:
12524         application/json:
12525           schema: /
12526             {
12527               "id":
12528                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
12529               "$schema": "http://json-schema.org/draft-04/schema#",
12530               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All

```

```

12531 rights reserved.",
12532     "title": "SelectableLevels",
12533     "definitions": {
12534         "oic.r.selectablelevels": {
12535             "type": "object",
12536             "properties": {
12537                 "availablelevels": {
12538                     "type": "array",
12539                     "description": "Set of levels from which one can be selected",
12540                     "readOnly": true,
12541                     "items": {
12542                         "anyOf": [
12543                             {"type": "integer"},
12544                             {"type": "number"}
12545                         ]
12546                     }
12547                 },
12548                 "targetlevel": {
12549                     "anyOf": [
12550                         {"type": "integer"},
12551                         {"type": "number"}
12552                     ],
12553                     "description": "The target level from the available selectable set"
12554                 }
12555             }
12556         },
12557     },
12558     "type": "object",
12559     "allOf": [
12560         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12561         {"$ref": "#/definitions/oic.r.selectablelevels"}
12562     ],
12563     "required": ["availablelevels", "targetlevel"]
12564 }
12565
12566 example: /
12567 {
12568     "rt": ["oic.r.selectablelevels"],
12569     "id": "unique_example_id",
12570     "availablelevels": [0, 2, 4, 6, 8],
12571     "targetlevel": 2
12572 }
12573
12574 post:
12575     description: |
12576     Sets the current level from the set that is selectable
12577
12578     body:
12579     application/json:
12580     schema: /
12581     {
12582         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
12583         "$schema": "http://json-schema.org/draft-04/schema#",
12584         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
12585 reserved.",
12586         "title": "SelectableLevels",
12587         "definitions": {
12588             "oic.r.selectablelevels": {
12589                 "type": "object",
12590                 "properties": {
12591                     "targetlevel": {
12592                         "type": ["integer", "number"],
12593                         "description": "The target level from the available selectable set"
12594                     }
12595                 }
12596             }
12597         },

```

```

12598         "type": "object",
12599         "allOf": [
12600             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12601             {"$ref": "#/definitions/oic.r.selectablelevels"}
12602         ],
12603         "required": ["targetlevel"]
12604     }
12605
12606     example: /
12607     {
12608         "targetlevel": 4
12609     }
12610
12611     responses :
12612     200:
12613         body:
12614             application/json:
12615                 schema: /
12616                 {
12617                     "id":
12618 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
12619                     "$schema": "http://json-schema.org/draft-04/schema#",
12620                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
12621 rights reserved.",
12622                     "title": "SelectableLevels",
12623                     "definitions": {
12624                         "oic.r.selectablelevels": {
12625                             "type": "object",
12626                             "properties": {
12627                                 "targetlevel": {
12628                                     "type": ["integer", "number"],
12629                                     "description": "The target level from the available selectable set"
12630                                 }
12631                             }
12632                         },
12633                     },
12634                     "type": "object",
12635                     "allOf": [
12636                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12637                         {"$ref": "#/definitions/oic.r.selectablelevels"}
12638                     ],
12639                     "required": ["targetlevel"]
12640                 }
12641
12642                 example: /
12643                 {
12644                     "targetlevel": 4
12645                 }
12646
12647     403:
12648         description: |
12649             Generated by a Server when an attempt is made to update to a targetlevel that is not in
12650 the set of availablelevels
12651
12652         body:
12653             application/json:
12654                 schema: /
12655                 {
12656                     "id":
12657 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
12658                     "$schema": "http://json-schema.org/draft-04/schema#",
12659                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
12660 rights reserved.",

```

```

12661     "title": "SelectableLevels",
12662     "definitions": {
12663       "oic.r.selectablelevels": {
12664         "type": "object",
12665         "properties": {
12666           "availablelevels": {
12667             "type": "array",
12668             "description": "Set of levels from which one can be selected",
12669             "readOnly": true,
12670             "items": {
12671               "anyOf": [
12672                 {"type": "integer"},
12673                 {"type": "number"}
12674               ]
12675             }
12676           },
12677           "targetlevel": {
12678             "anyOf": [
12679               {"type": "integer"},
12680               {"type": "number"}
12681             ],
12682             "description": "The target level from the available selectable set"
12683           }
12684         }
12685       }
12686     },
12687     "type": "object",
12688     "allOf": [
12689       {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12690       {"$ref": "#/definitions/oic.r.selectablelevels"}
12691     ],
12692     "required": ["availablelevels", "targetlevel"]
12693   }
12694
12695   example: /
12696   {
12697     "id": "unique_example_id",
12698     "availablelevels": [0, 2, 4, 6, 8],
12699     "targetlevel": 2
12700   }
12701

```

12702 6.73.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
targetlevel	multiple types: see schema	yes		The target level from the available selectable set
availablelevels	array: see schema	yes	Read Only	Set of levels from which one can be selected

12703 6.73.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SelectableLevelsResURI		get	post		

12704 6.74 Value Conditional

12705 6.74.1 Introduction

12706 This resource specifies conditions that can be applied to an observed value in any Resource.
 12707 These conditions are applied by the server exposing the Resource to any generated notifications
 12708 because of subscriptions to the Resource. A unicast RETRIEVE to the Resource will receive the
 12709 most recent value; which may not be the most recent notified value. A server exposes this
 12710 Resource in association with the Resource conveying the observed value. This is done by means

12711 of a new Resource instance with an RT of ["oic.r.<thing being observed>", "oic.r.value.conditional"],
12712 e.g ["oic.r.temperature", "oic.r.value.conditional"]. Please see Section 5.7.1 of the published OCF
12713 Resource Type Specification for more details. The threshold is the amount by which the thing being
12714 observed must change before a notification is sent. The minnotifyperiod is the minimum time in ms
12715 (milliseconds) that must elapse before a notification is sent. If the maxnotifyperiod (time in ms
12716 (milliseconds)) elapses then a notification must be sent. The maxnotifyperiod timer resets each
12717 time a notification is sent. A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod
12718 means that the capability is supported but not active.

12719 **6.74.2 Example URI**

12720 /ValueConditionalResURI

12721 **6.74.3 Resource Type**

12722 The resource type (rt) is defined as: oic.r.value.conditional.

12723 **6.74.4 RAML Definition**

```
12724 ##RAML 0.8
12725 title: OICValueConditional
12726 version: v1.1.0-20161031
12727 traits:
12728   - interface :
12729     queryParameters:
12730       if:
12731         enum: ["oic.if.rw", "oic.if.baseline"]
12732
12733 /ValueConditionalResURI:
12734   description: |
12735     This resource specifies conditions that can be applied to an observed value in any Resource.
12736     These conditions are applied by the server exposing the Resource to any generated notifications
12737     because of subscriptions to the Resource.
12738     A unicast RETRIEVE to the Resource will receive the most recent value; which may not be the
12739     most recent notified value.
12740     A server exposes this Resource in association with the Resource conveying the observed value.
12741     This is done by means of a new Resource instance with an RT of ["oic.r.<thing being observed>",
12742     "oic.r.value.conditional"], e.g ["oic.r.temperature", "oic.r.value.conditional"]
12743     Please see Section 5.7.1 of the published OCF Resource Type Specification for more details.
12744     The threshold is the amount by which the thing being observed must change before a notification
12745     is sent.
12746     The minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a
12747     notification is sent.
12748     If the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be sent.
12749     The maxnotifyperiod timer resets each time a notification is sent.
12750     A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod means that the
12751     capability is supported but not active.
12752
12753   is : ['interface']
12754   get:
12755     responses :
12756       200:
12757         body:
12758           application/json:
12759             schema: /
12760               {
12761                 "id":
12762                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.value.conditional.json#",
12763                 "$schema": "http://json-schema.org/draft-04/schema#",
12764                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12765 reserved.",
12766                 "title": "Value Conditional",
12767                 "definitions": {
```



```

12768         "oic.r.value.conditional": {
12769             "type": "object",
12770             "anyOf": [
12771                 {"required": ["threshold"]},
12772                 {"required": ["minnotifyperiod"]},
12773                 {"required": ["maxnotifyperiod"]}
12774             ],
12775             "properties": {
12776                 "threshold": {
12777                     "type": "number",
12778                     "minimum": 0,
12779                     "description": "Amount by which the measured value must change before a
12780 notification is sent."
12781                 },
12782                 "minnotifyperiod": {
12783                     "type": "integer",
12784                     "minimum": 0,
12785                     "description": "Minimum elapsed time in ms before a notification is sent."
12786                 },
12787                 "maxnotifyperiod": {
12788                     "type": "integer",
12789                     "minimum": 0,
12790                     "description": "Maximum elapsed time in ms before a notification must be
12791 sent."
12792                 }
12793             }
12794         },
12795     },
12796     "type": "object",
12797     "allOf": [
12798         {"$ref": "oic.core.json#/definitions/oic.core"},
12799         {"$ref": "#/definitions/oic.r.value.conditional"}
12800     ]
12801 }
12802
12803     example: /
12804     {
12805         "rt":          ["oic.r.value.conditional"],
12806         "id":          "unique_example_id",
12807         "threshold":   2,
12808         "minnotifyperiod": 2000,
12809         "maxnotifyperiod": 5000
12810     }
12811
12812     post:
12813         description: |
12814             body:
12815                 application/json:
12816                     schema: valueconditional
12817                     example: |
12818                         {
12819                             "threshold":      2,
12820                             "minnotifyperiod": 1500
12821                         }
12822
12823     responses :
12824         200:
12825             body:
12826                 application/json:
12827                     schema: /
12828                     {
12829                         "id":
12830 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.value.conditional.json#",
12831                         "$schema": "http://json-schema.org/draft-04/schema#",
12832                         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12833 reserved.",

```

```

12834     "title": "Value Conditional",
12835     "definitions": {
12836       "oic.r.value.conditional": {
12837         "type": "object",
12838         "anyOf": [
12839           {"required": ["threshold"]},
12840           {"required": ["minnotifyperiod"]},
12841           {"required": ["maxnotifyperiod"]}
12842         ],
12843         "properties": {
12844           "threshold": {
12845             "type": "number",
12846             "minimum": 0,
12847             "description": "Amount by which the measured value must change before a
12848 notification is sent."
12849           },
12850           "minnotifyperiod": {
12851             "type": "integer",
12852             "minimum": 0,
12853             "description": "Minimum elapsed time in ms before a notification is sent."
12854           },
12855           "maxnotifyperiod": {
12856             "type": "integer",
12857             "minimum": 0,
12858             "description": "Maximum elapsed time in ms before a notification must be
12859 sent."
12860           }
12861         }
12862       },
12863     },
12864     "type": "object",
12865     "allOf": [
12866       {"$ref": "oic.core.json#/definitions/oic.core"},
12867       {"$ref": "#/definitions/oic.r.value.conditional"}
12868     ]
12869   }
12870
12871   example: /
12872   {
12873     "threshold": 2,
12874     "minnotifyperiod": 1500
12875   }
12876

```

12877 **6.74.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
threshold	number	yes		Amount by which the measured value must change before a notification is sent.
maxnotifyperiod	integer	yes		Maximum elapsed time in ms before a notification must be sent.
minnotifyperiod	integer	yes		Minimum elapsed time in ms before a notification is sent.

12878 **6.74.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ValueConditionalResURI		get	post		

12879 **6.75 Colour Space Coordinates**

12880 **6.75.1 Introduction**

12881 This resource describes the colour using colour space co-ordinates. csc is the colour space
 12882 coordinates in CIE colour space. The first item in the array is the X coordinate. The second item
 12883 in the array is the Y coordinate. If precision (from oic.r.baseresource) is provided it applies to
 12884 both the X and Y coordinates.

12885 **6.75.2 Example URI**

12886 /example/ColourSpaceCoordinatesResURI

12887 **6.75.3 Resource Type**

12888 The resource type (rt) is defined as: oic.r.colour.csc.

12889 **6.75.4 RAML Definition**

```

12890 #%RAML 0.8
12891 title: OCFColourCSC
12892 version: OCFv1.1.0-2017
12893 traits:
12894   - interface-a :
12895     queryParameters:
12896       if:
12897         enum: ["oic.if.a"]
12898   - interface-all :
12899     queryParameters:
12900       if:
12901         enum: ["oic.if.a", "oic.if.baseline"]
12902
12903 /example/ColourSpaceCoordinatesResURI:
12904   description: |
12905     This resource describes the colour using colour space co-ordinates.
12906     csc is the colour space coordinates in CIE colour space.
12907     The first item in the array is the X coordinate.
12908     The second item in the array is the Y coordinate.
12909     If precision (from oic.r.baseresource) is provided it applies to both the X and Y
12910     coordinates.
12911
12912   get:
12913     description: |
12914       Provides the colour using colour space coordinates.
12915
12916   is : ['interface-all']
12917   responses :
12918     200:
12919       body:
12920         application/json:
12921           schema: /
12922             {
12923               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.csc.json#",
12924               "$schema": "http://json-schema.org/draft-04/schema#",
12925               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12926               reserved.",
12927               "title": "Colour Space Coordinates",
  
```

```

12928     "definitions": {
12929         "oic.r.colour.csc": {
12930             "type": "object",
12931             "properties": {
12932                 "csc": {
12933                     "type": "array",
12934                     "description": "X and Y coordinates of the colour in CIE colour space",
12935                     "minItems": 2,
12936                     "maxItems": 2,
12937                     "items": {
12938                         "type": "number",
12939                         "minimum": 0,
12940                         "maximum": 1
12941                     }
12942                 }
12943             }
12944         },
12945     },
12946     "type": "object",
12947     "allOf": [
12948         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
12949         {"$ref": "#/definitions/oic.r.colour.csc"}
12950     ],
12951     "required": [ "csc" ]
12952 }
12953
12954
12955 example: /
12956 {
12957     "rt":          ["oic.r.colour.csc"],
12958     "id":          "unique_example_id",
12959     "csc":         [0.41,0.51]
12960 }
12961
12962 post:
12963     description: |
12964         Sets current colour space coordinates
12965
12966     is : ['interface-a']
12967     body:
12968         application/json:
12969             schema: /
12970                 {
12971                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.csc.json#",
12972                     "$schema": "http://json-schema.org/draft-04/schema#",
12973                     "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12974 reserved.",
12975                     "title": "Colour Space Coordinates",
12976                     "definitions": {
12977                         "oic.r.colour.csc": {
12978                             "type": "object",
12979                             "properties": {
12980                                 "csc": {
12981                                     "type": "array",
12982                                     "description": "X and Y coordinates of the colour in CIE colour space",
12983                                     "minItems": 2,
12984                                     "maxItems": 2,
12985                                     "items": {
12986                                         "type": "number",
12987                                         "minimum": 0,
12988                                         "maximum": 1
12989                                     }
12990                                 }
12991                             }
12992                         }
12993                     },
12994                     "type": "object",

```

```

12995     "allOf": [
12996       { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
12997       { "$ref": "#/definitions/oic.r.colour.csc" }
12998     ],
12999     "required": [ "csc" ]
13000   }
13001 }
13002
13003 example: /
13004 {
13005   "id":          "unique_example_id",
13006   "csc":         [0.40,0.70]
13007 }
13008
13009 responses :
13010 200:
13011   body:
13012   application/json:
13013     schema: /
13014     {
13015       "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.csc.json#",
13016       "$schema": "http://json-schema.org/draft-04/schema#",
13017       "description": "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13018 reserved.",
13019       "title": "Colour Space Coordinates",
13020       "definitions": {
13021         "oic.r.colour.csc": {
13022           "type": "object",
13023           "properties": {
13024             "csc": {
13025               "type": "array",
13026               "description": "X and Y coordinates of the colour in CIE colour space",
13027               "minItems": 2,
13028               "maxItems": 2,
13029               "items": {
13030                 "type": "number",
13031                 "minimum": 0,
13032                 "maximum": 1
13033               }
13034             }
13035           }
13036         },
13037       },
13038       "type": "object",
13039       "allOf": [
13040         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
13041         { "$ref": "#/definitions/oic.r.colour.csc" }
13042       ],
13043       "required": [ "csc" ]
13044     }
13045   }
13046
13047 example: /
13048 {
13049   "id":          "unique_example_id",
13050   "csc":         [0.40,0.70]
13051 }
13052

```

13053 6.75.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
csc	array: see schema	yes		X and Y coordinates of

				the colour in CIE colour space
--	--	--	--	--------------------------------

13054 **6.75.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/example/ColourSpaceCoordinatesResURI		get	post		

13055 **6.76 Colour Temperature**

13056 **6.76.1 Introduction**

13057 This resource describes the colour using colour temperature conventions. ct is the Mired colour
 13058 temperature. The equivalent value in Kelvin is obtained by Colour Temp(K) = 1,000,000/Colour
 13059 Temp(Mired)

13060 **6.76.2 Example URI**

13061 /example/ColourTemperatureResURI

13062 **6.76.3 Resource Type**

13063 The resource type (rt) is defined as: oic.r.colour.colourtemperature.

13064 **6.76.4 RAML Definition**

```

13065 #%RAML 0.8
13066 title: OCFColourTemperature
13067 version: OCFv1.0-2017
13068 traits:
13069   - interface-a :
13070     queryParameters:
13071       if:
13072         enum: ["oic.if.a"]
13073   - interface-all :
13074     queryParameters:
13075       if:
13076         enum: ["oic.if.a", "oic.if.baseline"]
13077
13078 /example/ColourTemperatureResURI:
13079   description: |
13080     This resource describes the colour using colour temperature conventions.
13081     ct is the Mired colour temperature.
13082     The equivalent value in Kelvin is obtained by Colour Temp(K) = 1,000,000/Colour Temp(Mired)
13083
13084   get:
13085     description: |
13086       Provides the colour using colour temperature conventions.
13087
13088     is : ['interface-all']
13089     responses :
13090       200:
13091         body:
13092           application/json:
13093             schema: /
13094               {
13095                 "id":
13096                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.colourtemperature.json#",
13097                 "$schema": "http://json-schema.org/draft-04/schema#",
13098                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13099 reserved.",
13100                 "title": "Colour Temperature",
13101                 "definitions": {

```

```

13102         "oic.r.colour.colourtemperature": {
13103             "type": "object",
13104             "properties": {
13105                 "ct": {
13106                     "type": "integer",
13107                     "description": "Mired colour temperature",
13108                     "minimum": 0
13109                 }
13110             }
13111         },
13112     },
13113     "type": "object",
13114     "allOf": [
13115         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13116         {"$ref": "#/definitions/oic.r.colour.colourtemperature"}
13117     ],
13118     "required": [ "ct" ]
13119 }
13120
13121     example: /
13122     {
13123         "rt":         ["oic.r.colour.colourtemperature"],
13124         "id":         "unique_example_id",
13125         "ct":         457
13126     }
13127
13128     post:
13129     description: |
13130         Sets current colour temperature value
13131
13132     is : ['interface-a']
13133     body:
13134     application/json:
13135     schema: /
13136     {
13137         "id":
13138     "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.colourtemperature.json#",
13139         "$schema": "http://json-schema.org/draft-04/schema#",
13140         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13141 reserved.",
13142         "title": "Colour Temperature",
13143         "definitions": {
13144             "oic.r.colour.colourtemperature": {
13145                 "type": "object",
13146                 "properties": {
13147                     "ct": {
13148                         "type": "integer",
13149                         "description": "Mired colour temperature",
13150                         "minimum": 0
13151                     }
13152                 }
13153             }
13154         },
13155         "type": "object",
13156         "allOf": [
13157             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13158             {"$ref": "#/definitions/oic.r.colour.colourtemperature"}
13159         ],
13160         "required": [ "ct" ]
13161     }
13162
13163     example: /
13164     {
13165         "id":         "unique_example_id",
13166         "ct":         457

```

```

13167     }
13168
13169     responses :
13170     200:
13171         body:
13172             application/json:
13173                 schema: /
13174                 {
13175                     "id":
13176 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.colourtemperature.json#",
13177                     "$schema": "http://json-schema.org/draft-04/schema#",
13178                     "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13179 reserved.",
13180                     "title": "Colour Temperature",
13181                     "definitions": {
13182                         "oic.r.colour.colourtemperature": {
13183                             "type": "object",
13184                             "properties": {
13185                                 "ct": {
13186                                     "type": "integer",
13187                                     "description": "Mired colour temperature",
13188                                     "minimum": 0
13189                                 }
13190                             }
13191                         },
13192                     },
13193                     "type": "object",
13194                     "allOf": [
13195                         {"$ref": "oic.baseresource.json#/definitions/oic.r.baseresource"},
13196                         {"$ref": "#/definitions/oic.r.colour.colourtemperature"}
13197                     ],
13198                     "required": [ "ct" ]
13199                 }
13200
13201             example: /
13202             {
13203                 "id":          "unique_example_id",
13204                 "ct":          467
13205             }
13206

```

13207 6.76.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
ct	integer	yes		Mired colour temperature

13208 6.76.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/example/ColourTemperatureResURI		get	post		

13209 6.77 Colour Hue and Saturation

13210 6.77.1 Introduction

13211 This resource describes the colour using hue-saturation conventions. hue is the hue angle, it is a
13212 number value as defined by the CIECAM02 model definition (see reference [CIE CIE159:2004]).
13213 A Device that does not support fractional hue angles can provide integer values. If precision (from
13214 oic.r.baseresource) is provided it applies to the hue angle. saturation is an integer value as defined
13215 by the CIECAM02 model definition (see reference [CIE CIE159:2004]). saturation can be
13216 converted to a percentage by saturation/maximumsaturation X 100; where maximumsaturation is
13217 32767 if the Property itself is not present. maximumsaturation is the upper bound on the saturation
13218 supported by the Device. If not present the maximum value for saturation is 32767.


```

13219 6.77.2 Example URI
13220 /example/ColourHueSaturationResURI
13221 6.77.3 Resource Type
13222 The resource type (rt) is defined as: oic.r.colour.hs.
13223 6.77.4 RAML Definition
13224 #%RAML 0.8
13225 title: OCFColourHueSaturation
13226 version: v1.0-2017
13227 traits:
13228   - interface-a :
13229     queryParameters:
13230       if:
13231         enum: ["oic.if.a"]
13232   - interface-all :
13233     queryParameters:
13234       if:
13235         enum: ["oic.if.a", "oic.if.baseline"]
13236
13237 /example/ColourHueSaturationResURI:
13238   description: |
13239     This resource describes the colour using hue-saturation conventions.
13240     hue is the hue angle, it is a number value as defined by the CIECAM02 model definition (see
13241     reference [CIE CIE159:2004]).
13242     A Device that does not support fractional hue angles can provide integer values.
13243     If precision (from oic.r.baseresource) is provided it applies to the hue angle.
13244     saturation is an integer value as defined by the CIECAM02 model definition (see reference [CIE
13245     CIE159:2004]).
13246     saturation can be converted to a percentage by saturation/maximumsaturation X 100; where
13247     maximumsaturation is 32767 if the Property itself is not present.
13248     maximumsaturation is the upper bound on the saturation supported by the Device.
13249     If not present the maximum value for saturation is 32767.
13250
13251   get:
13252     description: |
13253       Provides the colour using hue and saturation conventions.
13254
13255     is : ['interface-all']
13256     responses :
13257       200:
13258         body:
13259           application/json:
13260             schema: /
13261               {
13262                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.hs.json#",
13263                 "$schema": "http://json-schema.org/draft-04/schema#",
13264                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13265 reserved.",
13266                 "title": "Colour Hue and Saturation",
13267                 "definitions": {
13268                   "oic.r.colour.hs": {
13269                     "type": "object",
13270                     "properties": {
13271                       "hue": {
13272                         "type": "number",
13273                         "description": "Hue angle as defined by the CIECAM02 model definition",
13274                         "minimum": 0.0,
13275                         "maximum": 360.0
13276                       },

```

```

13277         "saturation": {
13278             "type": "integer",
13279             "description": "Saturation as defined by the CIECAM02 model definition",
13280             "minimum": 0,
13281             "maximum": 32767
13282         },
13283         "maximumsaturation": {
13284             "type": "integer",
13285             "description": "Maximum supported value of Saturation for this Device",
13286             "readOnly": true,
13287             "minimum": 0,
13288             "maximum": 32767
13289         }
13290     }
13291 }
13292 },
13293 "type": "object",
13294 "allOf": [
13295     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13296     {"$ref": "#/definitions/oic.r.colour.hs"}
13297 ],
13298 "required": [ "hue", "saturation" ]
13299 }
13300 }
13301
13302 example: /
13303 {
13304     "rt":          ["oic.r.colour.hs"],
13305     "id":          "unique_example_id",
13306     "hue":         300.0,
13307     "saturation": 212,
13308     "maximumsaturation": 1000
13309 }
13310
13311 post:
13312 description: |
13313     Sets current colour hue and saturation values.
13314     At least one of hue or saturation shall be provided in the payload.
13315
13316 is : ['interface-a']
13317 body:
13318     application/json:
13319         schema: /
13320             {
13321                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.hs.json#",
13322                 "$schema": "http://json-schema.org/draft-04/schema#",
13323                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13324 reserved.",
13325                 "title": "Colour Hue and Saturation",
13326                 "definitions": {
13327                     "oic.r.colour.hs": {
13328                         "type": "object",
13329                         "properties": {
13330                             "hue": {
13331                                 "type": "number",
13332                                 "description": "Hue angle as defined by the CIECAM02 model definition",
13333                                 "minimum": 0.0,
13334                                 "maximum": 360.0
13335                             },
13336                             "saturation": {
13337                                 "type": "integer",
13338                                 "description": "Saturation as defined by the CIECAM02 model definition",
13339                                 "minimum": 0,
13340                                 "maximum": 32767
13341                             },
13342                             "maximumsaturation": {
13343                                 "type": "integer",

```

```

13344         "description": "Maximum supported value of Saturation for this Device",
13345         "readOnly": true,
13346         "minimum": 0,
13347         "maximum": 32767
13348     }
13349 }
13350 }
13351 },
13352 "type": "object",
13353 "allOf": [
13354     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13355     {"$ref": "#/definitions/oic.r.colour.hs"}
13356 ],
13357 "required": [ "hue", "saturation" ]
13358 }
13359 }
13360
13361 example: /
13362 {
13363     "id":          "unique_example_id",
13364     "hue":         300.0,
13365     "saturation": 212
13366 }
13367
13368 responses :
13369 200:
13370     body:
13371     application/json:
13372     schema: /
13373     {
13374         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.hs.json#",
13375         "$schema": "http://json-schema.org/draft-04/schema#",
13376         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13377 reserved.",
13378         "title": "Colour Hue and Saturation",
13379         "definitions": {
13380             "oic.r.colour.hs": {
13381                 "type": "object",
13382                 "properties": {
13383                     "hue": {
13384                         "type": "number",
13385                         "description": "Hue angle as defined by the CIECAM02 model definition",
13386                         "minimum": 0.0,
13387                         "maximum": 360.0
13388                     },
13389                     "saturation": {
13390                         "type": "integer",
13391                         "description": "Saturation as defined by the CIECAM02 model definition",
13392                         "minimum": 0,
13393                         "maximum": 32767
13394                     },
13395                     "maximumsaturation": {
13396                         "type": "integer",
13397                         "description": "Maximum supported value of Saturation for this Device",
13398                         "readOnly": true,
13399                         "minimum": 0,
13400                         "maximum": 32767
13401                     }
13402                 }
13403             }
13404         },
13405         "type": "object",
13406         "allOf": [
13407             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13408             {"$ref": "#/definitions/oic.r.colour.hs"}
13409         ],
13410         "required": [ "hue", "saturation" ]

```

```

13411     }
13412   }
13413
13414   example: /
13415     {
13416       "id":          "unique_example_id",
13417       "hue":         300.0,
13418       "saturation": 212
13419     }
13420

```

13421 6.77.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
hue	number	yes		Hue angle as defined by the CIECAM02 model definition
saturation	integer	yes		Saturation as defined by the CIECAM02 model definition
maximumsaturation	integer		Read Only	Maximum supported value of Saturation for this Device

13422 6.77.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/example/ColourHueSaturationResURI		get	post		

13423 6.78 Battery Material

13424 6.78.1 Introduction

13425 This resource describes the battery material represented as an enumerated set of strings.

13426 6.78.2 Example URI

13427 /BatteryMaterialResURI

13428 6.78.3 Resource Type

13429 The resource type (rt) is defined as: oic.r.batterymaterial.

13430 6.78.4 RAML Definition

```

13431 #%RAML 0.8
13432 title: BatteryMaterial
13433 version: v1.1.0-20170815
13434 traits:
13435   - interface :
13436     queryParameters:
13437       if:
13438         enum: ["oic.if.s", "oic.if.baseline"]
13439
13440 /BatteryMaterialResURI:
13441   description: |
13442     This resource describes the battery material represented as an enumerated set of strings.
13443
13444   is : ['interface']
13445   get:

```

```

13446     description: |
13447         Retrieves the battery material.
13448
13449     responses :
13450         200:
13451             body:
13452                 application/json:
13453                     schema: /
13454                         {
13455                             "id":
13456                             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.batterymaterial.json#",
13457                             "$schema": "http://json-schema.org/draft-04/schema#",
13458                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13459 reserved.",
13460                             "title": "BatteryMaterial",
13461                             "definitions": {
13462                                 "oic.r.batterymaterial": {
13463                                     "type": "object",
13464                                     "properties": {
13465                                         "material" : {
13466                                             "enum": [
13467                                                 "Alkaline",
13468                                                 "Aluminium Air",
13469                                                 "Aluminium Ion",
13470                                                 "Atomic Betavoltaics",
13471                                                 "Atomic Optoelectric Nuclear",
13472                                                 "Atomic Nuclear",
13473                                                 "Bunsen Cell",
13474                                                 "Chromic Acid Cell",
13475                                                 "Poggendorff Cell",
13476                                                 "Clark Cell",
13477                                                 "Daniell Cell",
13478                                                 "Dry Cell",
13479                                                 "Earth",
13480                                                 "Flow",
13481                                                 "Flow Vanadium Redox",
13482                                                 "Flow Zinc Bromine",
13483                                                 "Flow Zinc Cerium",
13484                                                 "Frog",
13485                                                 "Fuel",
13486                                                 "Galvanic Cell",
13487                                                 "Glass",
13488                                                 "Grove Cell",
13489                                                 "Lead Acid",
13490                                                 "Lead Acid Deep Cycle",
13491                                                 "Lead Acid VRLA",
13492                                                 "Lead Acid AGM",
13493                                                 "Lead Acid Gel",
13494                                                 "Leclanche Cell",
13495                                                 "Lemon Potato",
13496                                                 "Lithium",
13497                                                 "Lithium Air",
13498                                                 "Lithium Ion",
13499                                                 "Lithium Ion Cobalt Oxide (ICR)",
13500                                                 "Lithium Ion Manganese Oxide (IMR)",
13501                                                 "Lithium Ion Polymer",
13502                                                 "Lithium Iron Phosphate",
13503                                                 "Lithium Sulfur",
13504                                                 "Lithium Titanate",
13505                                                 "Lithium Ion Thin Film",
13506                                                 "Magnesium",
13507                                                 "Magnesium Ion",
13508                                                 "Mercury",
13509                                                 "Molten Salt",
13510                                                 "Nickel Cadmium",
13511                                                 "Nickel Cadmium Vented Cell",
13512                                                 "Nickel Hydrogen",
13513                                                 "Nickel Iron ",

```

```

13514         "Nickel Metal Hydride",
13515         "Nickel Metal Hydride Low Self-Discharge",
13516         "Nickel Oxyhydroxide",
13517         "Nickel Oxyride",
13518         "Nickel Zinc",
13519         "Organic Radical",
13520         "Paper",
13521         "Polymer Based",
13522         "Polysulfide Bromide",
13523         "Potassium Ion",
13524         "Pulvermachers Chain",
13525         "Silicon Air",
13526         "Silver Calcium",
13527         "Silver Oxide",
13528         "Silver Zinc",
13529         "Sodium Ion",
13530         "Sodium Sulfur",
13531         "Solid State",
13532         "Sugar",
13533         "Super Iron",
13534         "UltraBattery",
13535         "Voltaic Pile",
13536         "Voltaic Pile Penny",
13537         "Voltaic Pile Trough",
13538         "Water Activated",
13539         "Weston Cell",
13540         "Zinc Air",
13541         "Zinc Carbon",
13542         "Zinc Chloride",
13543         "Zinc Ion",
13544         "Unknown"
13545     ],
13546     "description": "Battery construction material (type).",
13547     "readOnly": true
13548 }
13549 }
13550 }
13551 },
13552 "type": "object",
13553 "allOf": [
13554     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13555     {"$ref": "#/definitions/oic.r.batterymaterial"}
13556 ],
13557 "required": [ "material" ]
13558 }
13559
13560 example: /
13561 {
13562     "rt": ["oic.r.batterymaterial"],
13563     "id": "unique_example_id",
13564     "material": "Alkaline"
13565 }
13566

```

6.78.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
material	multiple types: see schema	yes	Read Only	Battery construction material (type).

6.78.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BatteryMaterialResURI		get			

13569 **6.79 Brewing**

13570 **6.79.1 Introduction**

13571 This resource describes the attributes associated with brewing. This resource is used for
13572 configuration only. Operation is handled independently of this resource. The amount requested is
13573 in ml. The strength of a brewed drink is an integer, the range of which may be enforced by the
13574 presence of a strengthrange Property.

13575 **6.79.2 Example URI**

13576 /BrewingResURI

13577 **6.79.3 Resource Type**

13578 The resource type (rt) is defined as: oic.r.brewing.

13579 **6.79.4 RAML Definition**

13580 `##RAML 0.8`

13581 `title: Brewing`

13582 `version: v1.1.0-20170815`

13583 `traits:`

13584 `- interface :`

13585 `queryParameters:`

13586 `if:`

13587 `enum: ["oic.if.rw", "oic.if.baseline"]`

13588

13589 `/BrewingResURI:`

13590 `description: |`

13591 `This resource describes the attributes associated with brewing`

13592 `This resource is used for configuration only`

13593 `Operation is handled independently of this resource`

13594 `The amount requested is in ml`

13595 `The strength of a brewed drink is an integer, the range of which may be enforced by the`
13596 `presence of a strengthrange Property.`

13597

13598 `is : ['interface']`

13599 `get:`

13600 `description: |`

13601 `Retrieves the state of brewing.`

13602

13603 `responses :`

13604 `200:`

13605 `body:`

13606 `application/json:`

13607 `schema: |`

13608 `{`

13609 `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.brewing.json#",`

13610 `"$schema": "http://json-schema.org/draft-04/schema#",`

13611 `"description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights`

13612 `reserved.",`

13613 `"title": "Brewing",`

13614 `"definitions": {`

13615 `"oic.r.brewing": {`

13616 `"type": "object",`

13617 `"properties": {`

13618 `"amountrequested" : {`

13619 `"type": "integer",`

13620 `"description": "The amount requested in ml."`

13621 `},`

13622 `"strength" : {`

13623 `"type": "integer",`

13624 `"description": "The strength of a brewed drink."`

```

13625         },
13626         "strengthrange": {
13627             "type": "array",
13628             "minItems": 2,
13629             "maxItems": 2,
13630             "readOnly": true,
13631             "items": {
13632                 "type": "integer"
13633             }
13634         }
13635     }
13636 },
13637 },
13638 "type": "object",
13639 "allOf": [
13640     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13641     {"$ref": "#/definitions/oic.r.brewing"}
13642 ],
13643 "required": [ "amountrequested" ]
13644 }
13645
13646 example: /
13647 {
13648     "rt":      ["oic.r.brewing"],
13649     "id":      "unique_example_id",
13650     "amountrequested": 120,
13651     "strength": 8,
13652     "strengthrange": [1,10]
13653 }
13654
13655 post:
13656     description: |
13657         Sets the brewing values
13658
13659     body:
13660         application/json:
13661             schema: /
13662             {
13663                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.brewing.json#",
13664                 "$schema": "http://json-schema.org/draft-04/schema#",
13665                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13666 reserved.",
13667                 "title": "Brewing",
13668                 "definitions": {
13669                     "oic.r.brewing": {
13670                         "type": "object",
13671                         "properties": {
13672                             "amountrequested" : {
13673                                 "type": "integer",
13674                                 "description": "The amount requested in ml."
13675                             },
13676                             "strength" : {
13677                                 "type": "integer",
13678                                 "description": "The strength of a brewed drink."
13679                             },
13680                             "strengthrange": {
13681                                 "type": "array",
13682                                 "minItems": 2,
13683                                 "maxItems": 2,
13684                                 "readOnly": true,
13685                                 "items": {
13686                                     "type": "integer"
13687                                 }
13688                             }
13689                         }
13690                     }
13691                 },

```



```

13692     "type": "object",
13693     "allOf": [
13694       { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
13695       { "$ref": "#/definitions/oic.r.brewing" }
13696     ],
13697     "required": [ "amountrequested" ]
13698   }
13699

```

```

13700   example: /
13701     {
13702       "id": "unique_example_id",
13703       "amountrequested": 120,
13704       "strength": 8
13705     }
13706

```

```

13707   responses :
13708     200:

```

13709 6.79.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
amountrequested	integer	yes		The amount requested in ml.
strength	integer			The strength of a brewed drink.
strengthrange	array: see schema		Read Only	

13710 6.79.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BrewingResURI		get	post		

13711 6.80 Energy

13712 6.80.1 Introduction

13713 This resource describes the attributes associated with electrical energy. This can be used for either
 13714 rated (read-only), desired (read-write) or measured (read-only) energy. The voltage is in Volts (V),
 13715 current in Amps (A), and frequency in Hertz (Hz).

13716 6.80.2 Example URI

13717 /EnergyResURI

13718 6.80.3 Resource Type

13719 The resource type (rt) is defined as: oic.r.energy.electrical.

13720 6.80.4 RAML Definition

```

13721 #%RAML 0.8
13722 title: Energy
13723 version: v1.1.0-20170815
13724 traits:
13725   - interface-update :
13726     queryParameters:
13727       if:
13728         enum: ["oic.if.rw", "oic.if.baseline"]
13729   - interface-all :
13730     queryParameters:
13731       if:
13732         enum: ["oic.if.r", "oic.if.rw", "oic.if.s", "oic.if.baseline"]
13733

```

```

13734 /EnergyResURI:
13735   description: |
13736     This resource describes the attributes associated with electrical energy
13737     This can be used for either rated (read-only), desired (read-write) or measured (read-only)
13738 energy
13739     The voltage is in Volts (V), current in Amps (A), and frequency in Hertz (Hz).
13740
13741   get:
13742     description: |
13743       Retrieves the current energy.
13744
13745     is : ['interface-all']
13746     responses :
13747       200:
13748         body:
13749           application/json:
13750             schema: /
13751               {
13752                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.json#",
13753                 "$schema": "http://json-schema.org/draft-04/schema#",
13754                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13755 reserved.",
13756                 "title": "Electrical Energy",
13757                 "definitions": {
13758                   "oic.r.energy.electrical": {
13759                     "type": "object",
13760                     "properties": {
13761                       "voltage" : {
13762                         "type": "number",
13763                         "readOnly": true,
13764                         "description": "The electric voltage in Volts (V).",
13765                       },
13766                       "desiredvoltage" : {
13767                         "type": "number",
13768                         "description": "The desired electric voltage in Volts (V).",
13769                       },
13770                       "current" : {
13771                         "type": "number",
13772                         "readOnly": true,
13773                         "description": "The electric current in Amps (A).",
13774                       },
13775                       "desiredcurrent" : {
13776                         "type": "number",
13777                         "description": "The desired electric current in Amps (A).",
13778                       },
13779                       "frequency" : {
13780                         "type": "number",
13781                         "readOnly": true,
13782                         "description": "The electric frequency in Hertz (Hz).",
13783                       },
13784                       "desiredfrequency" : {
13785                         "type": "number",
13786                         "description": "The desired electric frequency in Hertz (Hz).",
13787                       }
13788                     }
13789                   }
13790                 },
13791                 "type": "object",
13792                 "allOf": [
13793                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
13794                   { "$ref": "#/definitions/oic.r.energy.electrical" }
13795                 ],
13796                 "required": [ "voltage", "current", "frequency" ]
13797               }
13798

```

```

13799     example: /
13800         {
13801             "rt":      ["oic.r.energy.electrical"],
13802             "id":      "unique_example_id",
13803             "voltage": 120.0,
13804             "current": 5.0,
13805             "frequency": 60.0
13806         }
13807
13808     post:
13809         description: |
13810             Sets the desired energy values
13811
13812     is : ['interface-update']
13813     body:
13814         application/json:
13815             schema: /
13816                 {
13817                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy-Update.json#",
13818                     "$schema": "http://json-schema.org/draft-04/schema#",
13819                     "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13820 reserved.",
13821                     "title": "Electrical Energy",
13822                     "definitions": {
13823                         "oic.r.energy.electrical": {
13824                             "type": "object",
13825                             "anyOf": [
13826                                 {"required": ["desiredvoltage"]},
13827                                 {"required": ["desiredcurrent"]},
13828                                 {"required": ["desiredfrequency"]}
13829                             ],
13830                             "properties": {
13831                                 "desiredvoltage" : {
13832                                     "type": "number",
13833                                     "description": "The desired electric voltage in Volts (V).",
13834                                 },
13835                                 "desiredcurrent" : {
13836                                     "type": "number",
13837                                     "description": "The desired electric current in Amps (A).",
13838                                 },
13839                                 "desiredfrequency" : {
13840                                     "type": "number",
13841                                     "description": "The desired electric frequency in Hertz (Hz).",
13842                                 }
13843                             }
13844                         }
13845                     },
13846                     "type": "object",
13847                     "allOf": [
13848                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13849                         {"$ref": "#/definitions/oic.r.energy.electrical"}
13850                     ]
13851                 }
13852
13853     example: /
13854         {
13855             "id":      "unique_example_id",
13856             "desiredvoltage": 130.0,
13857             "desiredcurrent": 6.0
13858         }
13859
13860     responses :
13861         200:

```

13862

6.80.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
desiredcurrent	number			The desired electric current in Amps (A).
current	number	yes	Read Only	The electric current in Amps (A).
frequency	number	yes	Read Only	The electric frequency in Hertz (Hz).
voltage	number	yes	Read Only	The electric voltage in Volts (V).
desiredfrequency	number			The desired electric frequency in Hertz (Hz).
desiredvoltage	number			The desired electric voltage in Volts (V).

13863

6.80.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyResURI		get	post		

13864

6.81 Energy Generation

13865

6.81.1 Introduction

13866

This resource describes the attributes associated with energy generation energygenerated is a number that provides the energy generated in Watt-hour(Wh).

13867

13868

6.81.2 Example URI

13869

/EnergyGenerationResURI

13870

6.81.3 Resource Type

13871

The resource type (rt) is defined as: oic.r.energy.generation.

13872

6.81.4 RAML Definition

13873

```
##RAML 0.8
```

13874

```
title: EnergyGeneration
```

13875

```
version: v1.1.0-20170815
```

13876

```
traits:
```

13877

```
- interface :
```

13878

```
  queryParameters:
```

13879

```
    if:
```

13880

```
      enum: ["oic.if.s", "oic.if.baseline"]
```

13881

13882

```
/EnergyGenerationResURI:
```

13883

```
  description: |
```

13884

```
    This resource describes the attributes associated with energy generation
```

13885

```
    energygenerated is a number that provides the energy generated in Watt-hour(Wh).
```

13886

13887

```
  is : ['interface']
```

13888

```
  get:
```

13889

```
    description: |
```

```

13890     Retrieves the current energy generation.
13891
13892     responses :
13893         200:
13894             body:
13895                 application/json:
13896                     schema: /
13897                         {
13898                             "id":
13899 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.generation.json#",
13900                             "$schema": "http://json-schema.org/draft-04/schema#",
13901                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
13902 reserved.",
13903                             "title": "EnergyGeneration",
13904                             "definitions": {
13905                                 "oic.r.energy.generation": {
13906                                     "type": "object",
13907                                     "properties": {
13908                                         "energygenerated" : {
13909                                             "type": "number",
13910                                             "description": "The energy generated in Watt-hour(Wh).",
13911                                             "readOnly": true
13912                                         }
13913                                     }
13914                                 }
13915                             },
13916                             "type": "object",
13917                             "allOf": [
13918                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
13919                                 {"$ref": "#/definitions/oic.r.energy.generation"}
13920                             ],
13921                             "required": [ "energygenerated" ]
13922                         }
13923
13924                     example: /
13925                         {
13926                             "rt":      ["oic.r.energy.generation"],
13927                             "id":      "unique_example_id",
13928                             "energygenerated": 3000.00
13929                         }
13930

```

13931 6.81.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
energygenerated	number	yes	Read Only	The energy generated in Watt-hour(Wh).

13932 6.81.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyGenerationResURI		get			

13933 6.82 Foaming

13934 6.82.1 Introduction

13935 This resource describes the attributes associated with foaming. The foam strength of the liquid is
13936 represented as an integer. The foam strength is an integer, the range of which may be enforced
13937 by the presence of a range Property defined in the baseresource.

13938 6.82.2 Example URI

13939 /FoamingResURI

13940 **6.82.3 Resource Type**

13941 The resource type (rt) is defined as: oic.r.foaming.

13942 **6.82.4 RAML Definition**

13943 `##RAML 0.8`

13944 `title: Foaming`

13945 `version: v1.1.0-20170815`

13946 `traits:`

13947 `- interface :`

13948 `queryParameters:`

13949 `if:`

13950 `enum: ["oic.if.rw", "oic.if.baseline"]`

13951

13952 `/FoamingResURI:`

13953 `description: |`

13954 `This resource describes the attributes associated with foaming`

13955 `The foam strength of the liquid is represented as an integer.`

13956 `The foam strength is an integer, the range of which may be enforced by the presence of a range`

13957 `Property defined in the baseresource.`

13958

13959 `is : ['interface']`

13960 `get:`

13961 `description: |`

13962 `Retrieves the state of foaming.`

13963

13964 `responses :`

13965 `200:`

13966 `body:`

13967 `application/json:`

13968 `schema: /`

13969 `{`

13970 `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.foaming.json#",`

13971 `"$schema": "http://json-schema.org/draft-04/schema#",`

13972 `"description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights`

13973 `reserved.",`

13974 `"title": "Foaming",`

13975 `"definitions": {`

13976 `"oic.r.foaming": {`

13977 `"type": "object",`

13978 `"properties": {`

13979 `"foamstrength" : {`

13980 `"type": "integer",`

13981 `"description": "The desired foaminess of the liquid."`

13982 `}`

13983 `}`

13984 `}`

13985 `},`

13986 `"type": "object",`

13987 `"allOf": [`

13988 `{"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},`

13989 `{"$ref": "#/definitions/oic.r.foaming"}`

13990 `],`

13991 `"required": ["foamstrength"]`

13992 `}`

13993

13994 `example: /`

13995 `{`

13996 `"rt": ["oic.r.foaming"],`

13997 `"id": "unique_example_id",`

13998 `"foamstrength": 50,`

```

13999         "range": [0,100]
14000     }
14001
14002     post:
14003         description: |
14004             Sets foaming value
14005
14006         body:
14007             application/json:
14008                 schema: /
14009                     {
14010                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.foaming.json#",
14011                         "$schema": "http://json-schema.org/draft-04/schema#",
14012                         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14013 reserved.",
14014                         "title": "Foaming",
14015                         "definitions": {
14016                             "oic.r.foaming": {
14017                                 "type": "object",
14018                                 "properties": {
14019                                     "foamstrength" : {
14020                                         "type": "integer",
14021                                         "description": "The desired foaminess of the liquid."
14022                                     }
14023                                 }
14024                             },
14025                             "type": "object",
14026                             "allOf": [
14027                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
14028                                 { "$ref": "#/definitions/oic.r.foaming" }
14029                             ],
14030                             "required": [ "foamstrength" ]
14031                         }
14032
14033                 example: /
14034                     {
14035                         "id": "unique_example_id",
14036                         "foamstrength": 50
14037                     }
14038
14039
14040     responses :
14041         200:
14042             body:
14043                 application/json:
14044                     schema: /
14045                         {
14046                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.foaming.json#",
14047                             "$schema": "http://json-schema.org/draft-04/schema#",
14048                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14049 reserved.",
14050                             "title": "Foaming",
14051                             "definitions": {
14052                                 "oic.r.foaming": {
14053                                     "type": "object",
14054                                     "properties": {
14055                                         "foamstrength" : {
14056                                             "type": "integer",
14057                                             "description": "The desired foaminess of the liquid."
14058                                         }
14059                                     }
14060                                 },
14061                             "type": "object",

```

```

14063     "allOf": [
14064         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
14065         { "$ref": "#/definitions/oic.r.foaming" }
14066     ],
14067     "required": [ "foamstrength" ]
14068 }
14069
14070     example: /
14071     {
14072         "id": "unique_example_id",
14073         "foamstrength": 50
14074     }
14075

```

14076 6.82.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
foamstrength	integer	yes		The desired foaminess of the liquid.

14077 6.82.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/FoamingResURI		get	post		

14078 6.83 Grinder

14079 6.83.1 Introduction

14080 This resource describes the attributes associated with a grinder. The coarseness of the grounds
 14081 is an integer. The higher the value, the less coarse. remaining is a percentage that represents the
 14082 unground material left.

14083 6.83.2 Example URI

14084 /GrinderResURI

14085 6.83.3 Resource Type

14086 The resource type (rt) is defined as: oic.r.grinder.

14087 6.83.4 RAML Definition

```

14088 #%RAML 0.8
14089 title: Grinder
14090 version: v1.1.0-20170815
14091 traits:
14092   - interface :
14093       queryParameters:
14094         if:
14095           enum: ["oic.if.rw", "oic.if.baseline"]
14096
14097 /GrinderResURI:
14098   description: |
14099     This resource describes the attributes associated with a grinder
14100     The coarseness of the grounds is an integer
14101     The higher the value, the less coarse
14102     remaining is a percentage that represents the unground material left.
14103
14104   is : ['interface']
14105   get:
14106     description: |
14107       Retrieves the state of a grinder.
14108

```



```

14109     responses :
14110         200:
14111             body:
14112                 application/json:
14113                     schema: /
14114                         {
14115                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.grinder.json#",
14116                             "$schema": "http://json-schema.org/draft-04/schema#",
14117                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14118 reserved.",
14119                             "title": "Grinder",
14120                             "definitions": {
14121                                 "oic.r.grinder": {
14122                                     "type": "object",
14123                                     "properties": {
14124                                         "coarseness" : {
14125                                             "type": "integer",
14126                                             "description": "The desired coarseness when grinding."
14127                                         },
14128                                         "remaining" : {
14129                                             "type": "integer",
14130                                             "description": "The percentage of unground material left.",
14131                                             "readOnly": true,
14132                                             "minimum": 0,
14133                                             "maximum": 100
14134                                         }
14135                                     }
14136                                 },
14137                             },
14138                             "type": "object",
14139                             "allOf": [
14140                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14141                                 {"$ref": "#/definitions/oic.r.grinder"}
14142                             ],
14143                             "required": ["coarseness"]
14144                         }
14145
14146                     example: /
14147                         {
14148                             "rt": ["oic.r.grinder"],
14149                             "id": "unique_example_id",
14150                             "coarseness": 10,
14151                             "remaining": 50
14152                         }
14153
14154         post:
14155             description: |
14156                 Sets grinding values
14157
14158             body:
14159                 application/json:
14160                     schema: /
14161                         {
14162                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.grinder-Update.json#",
14163                             "$schema": "http://json-schema.org/draft-04/schema#",
14164                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14165 reserved.",
14166                             "title": "Grinder",
14167                             "definitions": {
14168                                 "oic.r.grinder": {
14169                                     "type": "object",
14170                                     "properties": {
14171                                         "coarseness" : {
14172                                             "type": "integer",
14173                                             "description": "The desired coarseness when grinding."

```

```

14174         }
14175     }
14176 }
14177 },
14178 "type": "object",
14179 "allOf": [
14180     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14181     {"$ref": "#/definitions/oic.r.grinder"}
14182 ],
14183 "required": [ "coarseness" ]
14184 }
14185
14186 example: /
14187 {
14188     "id":          "unique_example_id",
14189     "coarseness": 10
14190 }
14191
14192 responses :
14193 200:
14194     body:
14195     application/json:
14196         schema: /
14197         {
14198             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.grinder-
14199 Update.json#",
14200             "$schema": "http://json-schema.org/draft-04/schema#",
14201             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14202 reserved.",
14203             "title": "Grinder",
14204             "definitions": {
14205                 "oic.r.grinder": {
14206                     "type": "object",
14207                     "properties": {
14208                         "coarseness" : {
14209                             "type": "integer",
14210                             "description": "The desired coarseness when grinding."
14211                         }
14212                     }
14213                 }
14214             },
14215             "type": "object",
14216             "allOf": [
14217                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14218                 {"$ref": "#/definitions/oic.r.grinder"}
14219             ],
14220             "required": [ "coarseness" ]
14221         }
14222
14223 example: /
14224 {
14225     "id":          "unique_example_id",
14226     "coarseness": 10
14227 }
14228

```

14229 **6.83.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
coarseness	integer	yes		The desired coarseness when grinding.
remaining	integer		Read Only	The percentage of unground material left.

14230 **6.83.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GrinderResURI		get	post		

14231 **6.84 Liquid Level**

14232 **6.84.1 Introduction**

14233 This resource describes the attributes associated with liquid level. The current level and desired
 14234 level are defined in terms of a percentage. The behaviour of when the currentlevel and desiredlevel
 14235 are not equal is determined by the device manufacturer.

14236 **6.84.2 Example URI**

14237 /LiquidLevelResURI

14238 **6.84.3 Resource Type**

14239 The resource type (rt) is defined as: oic.r.liquid.level.

14240 **6.84.4 RAML Definition**

```

14241 #%RAML 0.8
14242 title: OCFLiquidLevel
14243 version: v1.1.0-20160519
14244 traits:
14245   - interface :
14246       queryParams:
14247         if:
14248           enum: ["oic.if.rw", "oic.if.r", "oic.if.baseline"]
14249
14250 /LiquidLevelResURI:
14251   description: |
14252     This resource describes the attributes associated with liquid level
14253     The current level and desired level are defined in terms of a percentage
14254     The behaviour of when the currentlevel and desiredlevel are not equal is determined by the
14255     device manufacturer.
14256
14257   is : ['interface']
14258   get:
14259     description: |
14260       Retrieves the state of liquid level.
14261
14262   responses :
14263     200:
14264       body:
14265         application/json:
14266           schema: /
14267             {
14268               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.liquid.level.json#",
14269               "$schema": "http://json-schema.org/draft-04/schema#",
14270               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14271 reserved.",
14272               "title": "Liquid Level",
14273               "definitions": {
14274                 "oic.r.liquid.level": {
14275                   "type": "object",
14276                   "properties": {
14277                     "currentlevel" : {
14278                       "type": "integer",
14279                       "description": "The current level of the liquid in percentage.",
14280                       "readOnly": true,
14281                       "minimum": 0,

```

```

14282         "maximum": 100
14283     },
14284     "desiredlevel" : {
14285         "type": "integer",
14286         "description": "The desired level of the liquid in percentage.",
14287         "minimum": 0,
14288         "maximum": 100
14289     }
14290 }
14291 }
14292 },
14293 "type": "object",
14294 "allOf": [
14295     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14296     {"$ref": "#/definitions/oic.r.liquid.level"}
14297 ],
14298 "required": [ "currentlevel" ]
14299 }
14300
14301 example: /
14302 {
14303     "rt":      ["oic.r.liquid.level"],
14304     "id":      "unique_example_id",
14305     "currentlevel": 60,
14306     "desiredlevel": 80
14307 }
14308
14309 post:
14310     description: |
14311         Sets liquid level values
14312
14313     body:
14314         application/json:
14315             schema: /
14316                 {
14317                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.liquid.level-
14318 Update.json#",
14319                     "$schema": "http://json-schema.org/draft-04/schema#",
14320                     "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14321 reserved.",
14322                     "title": "Liquid Level",
14323                     "definitions": {
14324                         "oic.r.liquid.level": {
14325                             "type": "object",
14326                             "properties": {
14327                                 "desiredlevel" : {
14328                                     "type": "integer",
14329                                     "description": "The desired level of the liquid in percentage.",
14330                                     "minimum": 0,
14331                                     "maximum": 100
14332                                 }
14333                             }
14334                         }
14335                     },
14336                     "type": "object",
14337                     "allOf": [
14338                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14339                         {"$ref": "#/definitions/oic.r.liquid.level"}
14340                     ],
14341                     "required": [ "desiredlevel" ]
14342                 }
14343
14344             example: /
14345                 {
14346                     "id":      "unique_example_id",
14347                     "desiredlevel": 80

```

```

14348     }
14349
14350     responses :
14351         200:
14352             body:
14353                 application/json:
14354                     schema: /
14355                         {
14356                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.liquid.level-
14357 Update.json#",
14358                             "$schema": "http://json-schema.org/draft-04/schema#",
14359                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14360 reserved.",
14361                             "title": "Liquid Level",
14362                             "definitions": {
14363                                 "oic.r.liquid.level": {
14364                                     "type": "object",
14365                                     "properties": {
14366                                         "desiredlevel" : {
14367                                             "type": "integer",
14368                                             "description": "The desired level of the liquid in percentage.",
14369                                             "minimum": 0,
14370                                             "maximum": 100
14371                                         }
14372                                     }
14373                                 },
14374                             "type": "object",
14375                             "allOf": [
14376                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
14377                                 { "$ref": "#/definitions/oic.r.liquid.level" }
14378                             ],
14379                             "required": [ "desiredlevel" ]
14380                         }
14381
14382                     example: /
14383                         {
14384                             "id": "unique_example_id",
14385                             "desiredlevel": 80
14386                         }
14387
14388

```

14389 6.84.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
currentlevel	integer	yes	Read Only	The current level of the liquid in percentage.
desiredlevel	integer			The desired level of the liquid in percentage.

14390 6.84.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/LiquidLevelResURI		get	post		

14391 6.85 Vehicle Connector

14392 6.85.1 Introduction

14393 This resource describes the attributes associated with an electric vehicle charging connector. The
14394 connected state is a boolean indicating the status of the connector (False = disconnected, True =
14395 connected). The rated charging capacity and rated discharging capacity are in Amps (A).

```

14396 6.85.2 Example URI
14397 /VehicleConnectorResURI
14398 6.85.3 Resource Type
14399 The resource type (rt) is defined as: oic.r.vehicle.connector.
14400 6.85.4 RAML Definition
14401 #%RAML 0.8
14402 title: VehicleConnector
14403 version: v1.1.0-20170815
14404 traits:
14405   - interface :
14406     queryParameters:
14407       if:
14408         enum: ["oic.if.s", "oic.if.baseline"]
14409
14410 /VehicleConnectorResURI:
14411   description: |
14412     This resource describes the attributes associated with an electric vehicle charging connector
14413     The connected state is a boolean indicating the status of the connector (False = disconnected,
14414     True = connected)
14415     The rated charging capacity and rated discharging capacity are in Amps (A).
14416
14417   is : ['interface']
14418   get:
14419     description: |
14420       Retrieves the state of the vehicle connector.
14421
14422   responses :
14423     200:
14424       body:
14425         application/json:
14426           schema: /
14427             {
14428               "id":
14429 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.vehicle.connector.json#",
14430               "$schema": "http://json-schema.org/draft-04/schema#",
14431               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
14432 reserved.",
14433               "title": "VehicleConnector",
14434               "definitions": {
14435                 "oic.r.vehicle.connector": {
14436                   "type": "object",
14437                   "properties": {
14438                     "connected" : {
14439                       "type": "boolean",
14440                       "description": "The connection state.",
14441                       "readOnly": true
14442                     },
14443                     "ratedchargingcapacity" : {
14444                       "type": "number",
14445                       "description": "The rated charging capacity in Amps (A).",
14446                       "readOnly": true
14447                     },
14448                     "rateddischargingcapacity" : {
14449                       "type": "number",
14450                       "description": "The rated discharging capacity in Amps (A).",
14451                       "readOnly": true
14452                     }
14453                   }
14454                 }
14455             }

```

```

14455     },
14456     "type": "object",
14457     "allOf": [
14458       {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14459       {"$ref": "#/definitions/oic.r.vehicle.connector"}
14460     ],
14461     "required": [ "connected" ]
14462   }
14463
14464   example: /
14465   {
14466     "rt":      ["oic.r.vehicle.connector"],
14467     "id":      "unique_example_id",
14468     "connected": true,
14469     "ratedchargingcapacity": 20.0,
14470     "rateddischargingcapacity": 5.0
14471   }
14472

```

14473 6.85.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
connected	boolean	yes	Read Only	The connection state.
ratedchargingcapacity	number		Read Only	The rated charging capacity in Amps (A).
rateddischargingcapacity	number		Read Only	The rated discharging capacity in Amps (A).

14474 6.85.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/VehicleConnectorResURI		get			

14475 6.86 Time Stamp

14476 6.86.1 Introduction

14477 This resource describes the properties associated with a timestamp. TimeStamp is a string that
 14478 captures the timestamp using the RFC3339 datetime format (e.g: 2007-04-05T14:30Z)
 14479 (Time+Date+Timezone)

14480 6.86.2 Example URI

14481 /TimeStampResURI

14482 6.86.3 Resource Type

14483 The resource type (rt) is defined as: oic.r.time.stamp.

14484 6.86.4 RAML Definition

```

14485 #%RAML 0.8
14486 title: TimeStamp
14487 version: v1.1.0-20170830
14488 traits:
14489   - interface :
14490     queryParameters:
14491       if:
14492         enum: ["oic.if.s", "oic.if.r", "oic.if.baseline"]
14493
14494 /TimeStampResURI:

```

```

14495     description: |
14496         This resource describes the properties associated with a timestamp.
14497         TimeStamp is a string that captures the timestamp using the RFC3339 datetime format (e.g.: 2007-
14498 04-05T14:30Z) (Time+Date+Timezone)
14499
14500     is : ['interface']
14501
14502     get:
14503         description: |
14504             Retrieves the current timestamp data.
14505
14506     responses :
14507         200:
14508             body:
14509                 application/json:
14510                     schema: /
14511                         {
14512                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.stamp.json#",
14513                             "$schema": "http://json-schema.org/draft-04/schema#",
14514                             "description" : "Copyright (c) 2017, 2018 Open Connectivity Foundation, Inc. All
rights reserved.",
14515                             "title": "Observed Time",
14516                             "definitions": {
14517                                 "oic.r.time.stamp": {
14518                                     "type": "object",
14519                                     "properties": {
14520                                         "timestamp": {
14521                                             "type": "string",
14522                                             "format": "date-time",
14523                                             "description": "An RFC3339 formatted time indicating when the data
was observed (e.g.: 2016-02-15T09:19Z, 1996-12-19T16:39:57-08:00)",
14524                                             "readOnly": true
14525                                         }
14526                                     }
14527                                 }
14528                             },
14529                             "type": "object",
14530                             "allOf": [
14531                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
14532                                 {"$ref": "#/definitions/oic.r.time.stamp"}
14533                             ],
14534                             "required": ["timestamp"]
14535                         }
14536
14537
14538     example: /
14539         {
14540             "rt": ["oic.r.time.stamp"],
14541             "id": "unique_example_id",
14542             "timestamp": "2015-11-05T14:30Z"
14543         }
14544

```

6.86.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
timestamp	string	yes	Read Only	An RFC3339 formatted time indicating when the data was observed (e.g.: 2016-02-15T09:19Z, 1996-12-

				19T16:39:57-08:00)
--	--	--	--	--------------------

14546 **6.86.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TimeStampResURI		get			

14547

Annex ABase Resource Schema

14548

14549 A.1 Base Resource Schema

14550 A.1.1 Introduction

14551 This is the base resource schema on which all other resources defined in this specification build.
14552 value is the sensed or actuated value of the Resource. precision is the accuracy granularity of the
14553 value. range is the range over which value is valid. step is the step function over the defined range
14554 if applicable (e.g. always step by '2').

14555 A.1.2 Example URI

14556 /BaseResourceSchemaResURI

14557 A.1.3 Resource Type

14558 The resource type (rt) is defined as: oic.baseresource.

14559 A.1.4 RAML Definition

14560 `##RAML 0.8`

14561 `title: OICBaseResourceSchema`

14562 `version: v1.1.0-20160519`

14563 `traits:`

14564 `- interface-a :`

14565 `queryParameters:`

14566 `if:`

14567 `enum: ["oic.if.a"]`

14568 `- interface-baseline :`

14569 `queryParameters:`

14570 `if:`

14571 `enum: ["oic.if.baseline"]`

14572

14573 `/BaseResourceSchemaResURI:`

14574 `description: |`

14575 `This is the base resource schema on which all other resources defined in this specification`
14576 `build.`

14577 `value is the sensed or actuated value of the Resource.`

14578 `precision is the accuracy granularity of the value.`

14579 `range is the range over which value is valid.`

14580 `step is the step function over the defined range if applicable (e.g`

14581 `always step by '2').`

14582

14583 `get:`

14584 `description: |`

14585 `retrieves the state of the resource.`

14586

14587 `is : ['interface-baseline']`

14588 `responses :`

14589 `200:`

14590 `body:`

14591 `application/json:`

14592 `schema: |`

14593 `{`

14594 `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",`

14595 `"$schema": "http://json-schema.org/draft-04/schema#",`

14596 `"description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`

14597 `rights reserved.",`

14598 `"title": "Base Resource",`

14599 `"definitions": {`

```

14600     "oic.r.baseresource": {
14601         "allof": [
14602             {
14603                 "$ref": "oic.core.json#/definitions/oic.core"
14604             },
14605             {
14606                 "type": "object",
14607                 "properties": {
14608                     "value": {
14609                         "anyOf": [
14610                             {"type": "array"},
14611                             {"type": "string"},
14612                             {"type": "boolean"},
14613                             {"type": "integer"},
14614                             {"type": "number"},
14615                             {"type": "object"}
14616                         ],
14617                         "description": "The value sensed or actuated by this Resource"
14618                     },
14619                     "precision": {
14620                         "type": "number",
14621                         "readOnly": true,
14622                         "description": "Accuracy granularity of the exposed value"
14623                     },
14624                     "range": {
14625                         "type": "array",
14626                         "description": "The valid range for the value Property",
14627                         "readOnly": true,
14628                         "minItems": 2,
14629                         "maxItems": 2,
14630                         "items": {
14631                             "anyOf": [
14632                                 {"type": "number"},
14633                                 {"type": "integer"}
14634                             ]
14635                         }
14636                     },
14637                     "step": {
14638                         "description": "Step value across the defined range",
14639                         "readOnly": true,
14640                         "anyOf": [
14641                             {"type": "integer"},
14642                             {"type": "number"}
14643                         ]
14644                     }
14645                 }
14646             }
14647         ]
14648     },
14649     "type": "object",
14650     "allof": [
14651         {"$ref": "#/definitions/oic.r.baseresource"}
14652     ]
14653 }
14654 }
14655
14656 example: /
14657 {
14658     "rt" :           ["oic.baseresource"],
14659     "if":           ["oic.if.baseline"],
14660     "id":           "unique_example_id",
14661     "value":        10.5,
14662     "precision":    0.5,
14663     "range":        [0.0,100.0]
14664 }
14665
14666 post:
14667     description: |

```

```

14668         sets the read-write resource properties
14669
14670     is : ['interface-a']
14671     body:
14672         application/json:
14673             schema: /
14674                 {
14675                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",
14676                     "$schema": "http://json-schema.org/draft-04/schema#",
14677                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
14678 reserved.",
14679                     "title": "Base Resource",
14680                     "definitions": {
14681                         "oic.r.baseresource": {
14682                             "allOf": [
14683                                 {
14684                                     "$ref": "oic.core.json#/definitions/oic.core"
14685                                 },
14686                                 {
14687                                     "type": "object",
14688                                     "properties": {
14689                                         "value": {
14690                                             "anyOf": [
14691                                                 {"type": "array"},
14692                                                 {"type": "string"},
14693                                                 {"type": "boolean"},
14694                                                 {"type": "integer"},
14695                                                 {"type": "number"},
14696                                                 {"type": "object"}
14697                                             ],
14698                                             "description": "The value sensed or actuated by this Resource"
14699                                         },
14700                                         "precision": {
14701                                             "type": "number",
14702                                             "readOnly": true,
14703                                             "description": "Accuracy granularity of the exposed value"
14704                                         },
14705                                         "range": {
14706                                             "type": "array",
14707                                             "description": "The valid range for the value Property",
14708                                             "readOnly": true,
14709                                             "minItems": 2,
14710                                             "maxItems": 2,
14711                                             "items": {
14712                                                 "anyOf": [
14713                                                     {"type": "number"},
14714                                                     {"type": "integer"}
14715                                                 ]
14716                                             }
14717                                         },
14718                                         "step": {
14719                                             "description": "Step value across the defined range",
14720                                             "readOnly": true,
14721                                             "anyOf": [
14722                                                 {"type": "integer"},
14723                                                 {"type": "number"}
14724                                             ]
14725                                         }
14726                                     }
14727                                 }
14728                             ]
14729                         }
14730                     },
14731                     "type": "object",
14732                     "allOf": [
14733                         {"$ref": "#/definitions/oic.r.baseresource"}
14734                     ]
14735                 }
14736

```

```

14737     example: /
14738         {
14739             "value": 20.5
14740         }
14741
14742     responses :
14743         200:
14744             body:
14745                 application/json:
14746                     schema: /
14747                         {
14748                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",
14749                             "$schema": "http://json-schema.org/draft-04/schema#",
14750                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
14751 rights reserved.",
14752                             "title": "Base Resource",
14753                             "definitions": {
14754                                 "oic.r.baseresource": {
14755                                     "allOf": [
14756                                         {
14757                                             "$ref": "oic.core.json#/definitions/oic.core"
14758                                         },
14759                                         {
14760                                             "type": "object",
14761                                             "properties": {
14762                                                 "value": {
14763                                                     "anyOf": [
14764                                                         {"type": "array"},
14765                                                         {"type": "string"},
14766                                                         {"type": "boolean"},
14767                                                         {"type": "integer"},
14768                                                         {"type": "number"},
14769                                                         {"type": "object"}
14770                                                     ],
14771                                                     "description": "The value sensed or actuated by this Resource"
14772                                                 },
14773                                                 "precision": {
14774                                                     "type": "number",
14775                                                     "readOnly": true,
14776                                                     "description": "Accuracy granularity of the exposed value"
14777                                                 },
14778                                                 "range": {
14779                                                     "type": "array",
14780                                                     "description": "The valid range for the value Property",
14781                                                     "readOnly": true,
14782                                                     "minItems": 2,
14783                                                     "maxItems": 2,
14784                                                     "items": {
14785                                                         "anyOf": [
14786                                                             {"type": "number"},
14787                                                             {"type": "integer"}
14788                                                         ]
14789                                                     }
14790                                                 },
14791                                                 "step": {
14792                                                     "description": "Step value across the defined range",
14793                                                     "readOnly": true,
14794                                                     "anyOf": [
14795                                                         {"type": "integer"},
14796                                                         {"type": "number"}
14797                                                     ]
14798                                                 }
14799                                             }
14800                                         }
14801                                     ]
14802                                 }
14803                             },
14804                             "type": "object",

```

```

14805         "allOf": [
14806             {"$ref": "#/definitions/oic.r.baseresource"}
14807         ]
14808     }
14809
14810     example: /
14811     {
14812         "value": 20.5
14813     }
14814

```

14815 **A.1.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource

14816 **A.1.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BaseResourceSchemaResURI		get	post		

14817 **A.1.7 Referenced JSON schemas**

14818 **A.1.8 oic.core.json**

```

14819 {
14820     "id": "https://www.openconnectivity.org/ocf-apis/core/schemas/oic.core-schema.json#",
14821     "$schema": "http://json-schema.org/draft-04/schema#",
14822     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
14823 reserved.",
14824     "title": "Core",
14825     "definitions": {
14826         "oic.core": {
14827             "type": "object",
14828             "properties": {
14829                 "rt": {
14830                     "type": "array",
14831                     "items": {
14832                         "type": "string",
14833                         "maxLength": 64
14834                     },
14835                     "minItems": 1,

```

```

14836         "readOnly": true,
14837         "description": "Resource Type"
14838     },
14839     "if": {
14840         "type": "array",
14841         "items": {
14842             "type" : "string",
14843             "enum" : ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.lb", "oic.if.rw",
14844 "oic.if.r", "oic.if.a", "oic.if.s" ]
14845         },
14846         "minItems": 1,
14847         "readOnly": true,
14848         "description": "The interface set supported by this resource"
14849     },
14850     "n": {
14851         "type": "string",
14852         "maxLength": 64,
14853         "readOnly": true,
14854         "description": "Friendly name of the resource"
14855     },
14856     "id": {
14857         "type": "string",
14858         "maxLength": 64,
14859         "readOnly": true,
14860         "description": "Instance ID of this specific resource"
14861     }
14862 }
14863 }
14864 },
14865 "type": "object",
14866 "allOf": [
14867     { "$ref": "#/definitions/oic.core" }
14868 ]
14869 }
14870

```

14871

Annex B Swagger 2.0

14872 B.1 Acceleration Sensor

14873 B.1.1 Introduction

14874 This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate
 14875 acceleration
 14876 (which is dependent on the co-ordinate system and the observer).
 14877 The value is a float which describes the acceleration experienced by the object in "g".
 14878

14879 B.1.2 Example URI

14880 /AccelerationResURI

14881 B.1.3 Resource Type

14882 The resource type (rt) is defined as: ['oic.r.sensor.acceleration'].

14883 B.1.4 Swagger2.0 Definition

```

14884 {
14885   "swagger": "2.0",
14886   "info": {
14887     "title": "Acceleration Sensor",
14888     "version": "v1.1.0-20160519",
14889     "license": {
14890       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
14891       "x-description": "Redistribution and use in source and binary forms, with or without
14892 modification, are permitted provided that the following conditions are met:\n      1.
14893 Redistributions of source code must retain the above copyright notice, this list of conditions and
14894 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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14900 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
14901 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
14902 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
14903 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
14904 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
14905 OF SUCH DAMAGE.\n"
14906     }
14907   },
14908   "schemes": ["http"],
14909   "consumes": ["application/json"],
14910   "produces": ["application/json"],
14911   "paths": {
14912     "/AccelerationResURI" : {
14913       "get": {
14914         "description": "This resource provides a measure of proper acceleration (g force) as
14915 opposed to co-ordinate acceleration\n(which is dependent on the co-ordinate system and the
14916 observer).\n\nThe value is a float which describes the acceleration experienced by the object in
14917 \\"g\".\n",
14918         "parameters": [
14919           {"$ref": "#/parameters/interface"}
14920         ],
14921         "responses": {
14922           "200": {
14923             "description": "",
14924             "x-example":
14925               {
14926                 "rt": ["oic.r.sensor.acceleration"],
14927                 "id": "unique_example_id",
14928                 "acceleration": 0.5
14929               }
14930           },
14931           "schema": { "$ref": "#/definitions/acceleration" }

```



```

14932     }
14933   }
14934 }
14935 }
14936 },
14937 "parameters": {
14938   "interface": {
14939     "in": "query",
14940     "name": "if",
14941     "type": "string",
14942     "enum": ["oic.if.s", "oic.if.baseline"]
14943   }
14944 },
14945 "definitions": {
14946   "acceleration": {
14947     {
14948     "properties": {
14949       "acceleration": {
14950         "description": "sensed acceleration experienced in 'g'.",
14951         "readOnly": true,
14952         "type": "number"
14953       },
14954       "id": {
14955         "description": "Instance ID of this specific resource",
14956         "maxLength": 64,
14957         "readOnly": true,
14958         "type": "string"
14959       },
14960       "if": {
14961         "description": "The interface set supported by this resource",
14962         "items": {
14963           "enum": [
14964             "oic.if.baseline",
14965             "oic.if.ll",
14966             "oic.if.b",
14967             "oic.if.lb",
14968             "oic.if.rw",
14969             "oic.if.r",
14970             "oic.if.a",
14971             "oic.if.s"
14972           ],
14973           "type": "string"
14974         },
14975         "minItems": 1,
14976         "readOnly": true,
14977         "type": "array"
14978       },
14979       "n": {
14980         "description": "Friendly name of the resource",
14981         "maxLength": 64,
14982         "readOnly": true,
14983         "type": "string"
14984       },
14985       "precision": {
14986         "description": "Accuracy granularity of the exposed value",
14987         "readOnly": true,
14988         "type": "number"
14989       },
14990       "range": {
14991         "description": "The valid range for the value Property",
14992         "items": {
14993           "anyOf": [
14994             {
14995               "type": "number"
14996             },
14997             {
14998               "type": "integer"
14999             }
15000           ]
15001         },
15002         "maxItems": 2,

```

```

15003         "minItems": 2,
15004         "readOnly": true,
15005         "type": "array"
15006     },
15007     "rt": {
15008         "description": "Resource Type",
15009         "items": {
15010             "maxLength": 64,
15011             "type": "string"
15012         },
15013         "minItems": 1,
15014         "readOnly": true,
15015         "type": "array"
15016     },
15017     "step": {
15018         "anyOf": [
15019             {
15020                 "type": "integer"
15021             },
15022             {
15023                 "type": "number"
15024             }
15025         ],
15026         "description": "Step value across the defined range",
15027         "readOnly": true
15028     },
15029     "value": {
15030         "anyOf": [
15031             {
15032                 "type": "array"
15033             },
15034             {
15035                 "type": "string"
15036             },
15037             {
15038                 "type": "boolean"
15039             },
15040             {
15041                 "type": "integer"
15042             },
15043             {
15044                 "type": "number"
15045             },
15046             {
15047                 "type": "object"
15048             }
15049         ],
15050         "description": "The value sensed or actuated by this Resource"
15051     }
15052 },
15053 "required": [
15054     "acceleration"
15055 ]
15056 }
15057 }
15058 }
15059 }
15060

```

15061 **B.1.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource

rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
acceleration	number	yes	Read Only	sensed acceleration experienced in 'g'.
n	string		Read Only	Friendly name of the resource

15062 **B.1.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AccelerationResURI		get			

15063 **B.2 Activity Count**

15064 **B.2.1 Introduction**

15065 This resource specifies an activity count.
 15066 The resource can be readonly (oic.if.s interface) in which instance it represents a count.
 15067 The resource can be readwrite (oic.if.a interface) in which instance it represents a goal or target
 15068 for a count.
 15069 The count property is an integer representing either the current count or goal value.
 15070 Retrieves the current activity count.
 15071

15072 **B.2.2 Example URI**

15073 /ActivityCountResURI

15074 **B.2.3 Resource Type**

15075 The resource type (rt) is defined as: ['oic.r.sensor.activity.count'].

15076 **B.2.4 Swagger2.0 Definition**

```

15077 {
15078   "swagger": "2.0",
15079   "info": {
15080     "title": "Activity Count",
15081     "version": "v1.1.0-20160519",
15082     "license": {
15083       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
15084       "x-description": "Redistribution and use in source and binary forms, with or without
15085 modification, are permitted provided that the following conditions are met:\n      1.
15086 Redistributions of source code must retain the above copyright notice, this list of conditions and/or
15087 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
15088 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
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15090 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
15091 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR

```

```

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15093 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
15094 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
15095 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
15096 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
15097 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
15098 OF SUCH DAMAGE.\n"
15099 }
15100 },
15101 "schemes": ["http"],
15102 "consumes": ["application/json"],
15103 "produces": ["application/json"],
15104 "paths": {
15105   "/ActivityCountResURI" : {
15106     "get": {
15107       "description": "This resource specifies an activity count.\nThe resource can be readonly
15108 (oic.if.s interface) in which instance it represents a count.\nThe resource can be readwrite
15109 (oic.if.a interface) in which instance it represents a goal or target for a count.\nThe count
15110 property is an integer representing either the current count or goal value.\nRetrieves the current
15111 activity count.\n",
15112       "parameters": [
15113         { "$ref": "#/parameters/interface" }
15114       ],
15115       "responses": {
15116         "200": {
15117           "description": "",
15118           "x-example":
15119             {
15120               "rt": ["oic.r.sensor.activity.count"],
15121               "id": "unique_example_id",
15122               "count": 2500
15123             }
15124           ,
15125           "schema": { "$ref": "#/definitions/Count" }
15126         }
15127       }
15128     },
15129     "post": {
15130       "description": "Sets the count target\n",
15131       "parameters": [
15132         { "$ref": "#/parameters/interface" },
15133         {
15134           "name": "body",
15135           "in": "body",
15136           "required": true,
15137           "schema": { "$ref": "#/definitions/Count" },
15138           "x-example":
15139             {
15140               "id": "unique_example_id",
15141               "count": 5000
15142             }
15143         }
15144       ],
15145       "responses": {
15146         "200": {
15147           "description": "",
15148           "x-example":
15149             {
15150               "id": "unique_example_id",
15151               "count": 5000
15152             }
15153           ,
15154           "schema": { "$ref": "#/definitions/Count" }
15155         }
15156       }
15157     }
15158   }
15159 },
15160 "parameters": {
15161   "interface" : {
15162     "in" : "query",

```

```

15163     "name" : "if",
15164     "type" : "string",
15165     "enum" : ["oic.if.s", "oic.if.a", "oic.if.baseline"]
15166   }
15167 },
15168 "definitions": {
15169   "Count" :
15170   {
15171     "properties": {
15172       "count": {
15173         "description": "Current or Target count.",
15174         "type": "integer"
15175       },
15176       "id": {
15177         "description": "Instance ID of this specific resource",
15178         "maxLength": 64,
15179         "readOnly": true,
15180         "type": "string"
15181       },
15182       "if": {
15183         "description": "The interface set supported by this resource",
15184         "items": {
15185           "enum": [
15186             "oic.if.baseline",
15187             "oic.if.ll",
15188             "oic.if.b",
15189             "oic.if.lb",
15190             "oic.if.rw",
15191             "oic.if.r",
15192             "oic.if.a",
15193             "oic.if.s"
15194           ],
15195           "type": "string"
15196         },
15197         "minItems": 1,
15198         "readOnly": true,
15199         "type": "array"
15200       },
15201       "n": {
15202         "description": "Friendly name of the resource",
15203         "maxLength": 64,
15204         "readOnly": true,
15205         "type": "string"
15206       },
15207       "precision": {
15208         "description": "Accuracy granularity of the exposed value",
15209         "readOnly": true,
15210         "type": "number"
15211       },
15212       "range": {
15213         "description": "The valid range for the value Property",
15214         "items": {
15215           "anyOf": [
15216             {
15217               "type": "number"
15218             },
15219             {
15220               "type": "integer"
15221             }
15222           ]
15223         },
15224         "maxItems": 2,
15225         "minItems": 2,
15226         "readOnly": true,
15227         "type": "array"
15228       },
15229       "rt": {
15230         "description": "Resource Type",
15231         "items": {
15232           "maxLength": 64,
15233           "type": "string"

```

```

15234     },
15235     "minItems": 1,
15236     "readOnly": true,
15237     "type": "array"
15238   },
15239   "step": {
15240     "anyOf": [
15241       {
15242         "type": "integer"
15243       },
15244       {
15245         "type": "number"
15246       }
15247     ],
15248     "description": "Step value across the defined range",
15249     "readOnly": true
15250   },
15251   "value": {
15252     "anyOf": [
15253       {
15254         "type": "array"
15255       },
15256       {
15257         "type": "string"
15258       },
15259       {
15260         "type": "boolean"
15261       },
15262       {
15263         "type": "integer"
15264       },
15265       {
15266         "type": "number"
15267       },
15268       {
15269         "type": "object"
15270       }
15271     ],
15272     "description": "The value sensed or actuated by this Resource"
15273   }
15274 },
15275 "required": [
15276   "count"
15277 ]
15278 }
15279 }
15280 }
15281 }
15282 }

```

15283 B.2.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
count	integer	yes		Current or Target count.
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource

range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

15284 **B.2.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ActivityCountResURI		get	post		

15285 **B.3 Air Flow**

15286 **B.3.1 Introduction**

15287 This resource describes the properties associated with air flow.
 15288 The supporteddirections is the set of valid values for the direction property for a particular instance
 15289 of this resource type.
 15290 The direction is the directionality of the air flow if applicable, if supporteddirections is also present
 15291 it must be a value from that set.
 15292 Direction values are dependent on the capabilities of the unit.
 15293 The speed is an integer representing the current speed level for the unit.
 15294 The range (from oic.r.baseresource) is an array of the min,max values for the speed level. If not
 15295 present the range defaults to [0,100].
 15296 automode is the status of the automode feature; Off means automode is not enabled, On means
 15297 automode is active and the speed is automatically controlled by the device.
 15298 Retrieves the current air flow values.
 15299

15300 **B.3.2 Example URI**

15301 /AirFlowResURI

15302 **B.3.3 Resource Type**

15303 The resource type (rt) is defined as: ['oic.r.airflow'].

15304 **B.3.4 Swagger2.0 Definition**

```

15305 {
15306   "swagger": "2.0",
15307   "info": {
15308     "title": "Air Flow",
15309     "version": "v1.1.0-20160519",
15310     "license": {
15311       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
15312       "x-description": "Redistribution and use in source and binary forms, with or without
15313 modification, are permitted provided that the following conditions are met:\n      1.
15314 Redistributions of source code must retain the above copyright notice, this list of conditions and
15315 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
15316 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
15317 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
15318 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
15319 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
15320 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
15321 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
15322 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
15323 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
15324 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
  
```

```

15325 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
15326 OF SUCH DAMAGE.\n"
15327 }
15328 },
15329 "schemes": ["http"],
15330 "consumes": ["application/json"],
15331 "produces": ["application/json"],
15332 "paths": {
15333   "/AirFlowResURI" : {
15334     "get": {
15335       "description": "This resource describes the properties associated with air flow.\n\nThe
15336 supporteddirections is the set of valid values for the direction property for a particular instance
15337 of this resource type.\n\nThe direction is the directionality of the air flow if applicable, if
15338 supporteddirections is also present it must be a value from that set.\n\nDirection values are
15339 dependent on the capabilities of the unit.\n\nThe speed is an integer representing the current speed
15340 level for the unit.\n\nThe range (from oic.r.baseresource) is an array of the min,max values for the
15341 speed level. If not present the range defaults to [0,100].\n\nautomode is the status of the automode
15342 feature; Off means automode is not enabled, On means automode is active and the speed is
15343 automatically controlled by the device.\n\nRetrieves the current air flow values.\n",
15344     "parameters": [
15345       { "$ref": "#/parameters/interface" }
15346     ],
15347     "responses": {
15348       "200": {
15349         "description": "",
15350         "x-example":
15351           {
15352             "rt": ["oic.r.airflow"],
15353             "id": "unique_example_id",
15354             "supporteddirections": ["left","right","centre"],
15355             "direction": "left",
15356             "speed": 5,
15357             "range": [1,7],
15358             "automode": "Off"
15359           }
15360       },
15361       "schema": { "$ref": "#/definitions/AirFlow" }
15362     }
15363   }
15364 },
15365 "post": {
15366   "description": "Sets the current air flow values.\n\nOnly direction and speed may be set by
15367 an update operation.\n",
15368   "parameters": [
15369     { "$ref": "#/parameters/interface" },
15370     {
15371       "name": "body",
15372       "in": "body",
15373       "required": true,
15374       "schema": { "$ref": "#/definitions/AirFlow" },
15375       "x-example":
15376         {
15377           "id": "unique_example_id",
15378           "direction": "right",
15379           "speed": 3
15380         }
15381     }
15382   ],
15383   "responses": {
15384     "200": {
15385       "description": "",
15386       "x-example":
15387         {
15388           "id": "unique_example_id",
15389           "direction": "right",
15390           "speed": 3
15391         }
15392     },
15393     "schema": { "$ref": "#/definitions/AirFlow" }
15394   },
15395   "403": {

```



```

15396         "description" : "This response is generated by the OCF Server when the client
15397 sends:\n An update with an invalid property value for direction.\n An update with an out of range
15398 property value for speed.\nThe server may respond with the current resource representation.\n",
15399         "x-example":
15400         {
15401             "id":          "unique_example_id",
15402             "supporteddirections": ["left","right","centre"],
15403             "direction":  "right",
15404             "speed":      3
15405         }
15406     ,
15407     "schema": { "$ref": "#/definitions/AirFlow" }
15408 }
15409 }
15410 }
15411 }
15412 },
15413 "parameters": {
15414     "interface" : {
15415         "in" : "query",
15416         "name" : "if",
15417         "type" : "string",
15418         "enum" : ["oic.if.a", "oic.if.baseline"]
15419     }
15420 },
15421 "definitions": {
15422     "AirFlow" :
15423     {
15424         "properties": {
15425             "automode": {
15426                 "description": "Status of the automode feature, if on speed is set by the device",
15427                 "enum": [
15428                     "On",
15429                     "Off"
15430                 ]
15431             },
15432             "direction": {
15433                 "description": "Directionality of the air flow",
15434                 "type": "string"
15435             },
15436             "id": {
15437                 "description": "Instance ID of this specific resource",
15438                 "maxLength": 64,
15439                 "readOnly": true,
15440                 "type": "string"
15441             },
15442             "if": {
15443                 "description": "The interface set supported by this resource",
15444                 "items": {
15445                     "enum": [
15446                         "oic.if.baseline",
15447                         "oic.if.ll",
15448                         "oic.if.b",
15449                         "oic.if.lb",
15450                         "oic.if.rw",
15451                         "oic.if.r",
15452                         "oic.if.a",
15453                         "oic.if.s"
15454                     ],
15455                     "type": "string"
15456                 },
15457                 "minItems": 1,
15458                 "readOnly": true,
15459                 "type": "array"
15460             },
15461             "n": {
15462                 "description": "Friendly name of the resource",
15463                 "maxLength": 64,
15464                 "readOnly": true,
15465                 "type": "string"
15466             }

```

```

15467     "precision": {
15468         "description": "Accuracy granularity of the exposed value",
15469         "readOnly": true,
15470         "type": "number"
15471     },
15472     "range": {
15473         "description": "The valid range for the value Property",
15474         "items": {
15475             "anyOf": [
15476                 {
15477                     "type": "number"
15478                 },
15479                 {
15480                     "type": "integer"
15481                 }
15482             ]
15483         },
15484         "maxItems": 2,
15485         "minItems": 2,
15486         "readOnly": true,
15487         "type": "array"
15488     },
15489     "rt": {
15490         "description": "Resource Type",
15491         "items": {
15492             "maxLength": 64,
15493             "type": "string"
15494         },
15495         "minItems": 1,
15496         "readOnly": true,
15497         "type": "array"
15498     },
15499     "speed": {
15500         "description": "Current speed level",
15501         "type": "integer"
15502     },
15503     "step": {
15504         "anyOf": [
15505             {
15506                 "type": "integer"
15507             },
15508             {
15509                 "type": "number"
15510             }
15511         ],
15512         "description": "Step value across the defined range",
15513         "readOnly": true
15514     },
15515     "supporteddirections": {
15516         "description": "Array of possible direction settings for this instance of the Resource
15517 Type",
15518         "items": {
15519             "minItems": 1,
15520             "type": "string",
15521             "uniqueItems": true
15522         },
15523         "readOnly": true,
15524         "type": "array"
15525     },
15526     "value": {
15527         "anyOf": [
15528             {
15529                 "type": "array"
15530             },
15531             {
15532                 "type": "string"
15533             },
15534             {
15535                 "type": "boolean"
15536             },
15537             {

```

```

15538         "type": "integer"
15539     },
15540     {
15541         "type": "number"
15542     },
15543     {
15544         "type": "object"
15545     }
15546 ],
15547 "description": "The value sensed or actuated by this Resource"
15548 },
15549 },
15550 "required": [
15551     "speed"
15552 ],
15553 "type": "object"
15554 }
15555 }
15556 }
15557 }
15558

```

15559 **B.3.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
automode	multiple types: see schema			Status of the automode feature, if on speed is set by the device
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
direction	string			Directionality of the air flow
n	string		Read Only	Friendly name of the resource
supporteddirections	array: see schema		Read Only	Array of possible direction settings for this instance of the Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
speed	integer	yes		Current speed level
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource

range	array: schema	see	Read Only	The valid range for the value Property
-------	------------------	-----	-----------	--

15560 **B.3.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirFlowResURI		get	post		

15561 **B.4 Air Flow Control**

15562 **B.4.1 Introduction**

15563 This resource describes the attributes associated with control of air flow,
 15564 for example as modelled by a Thermostat (fan), Room A/C or other device.
 15565 The resource is a composite resource being made up as a collection of:
 15566 AirFlow Resource
 15567 BinarySwitch Resource
 15568 Retrieves the current air flow control values.
 15569

15570 **B.4.2 Example URI**

15571 /AirFlowControlResURI

15572 **B.4.3 Resource Type**

15573 The resource type (rt) is defined as: ['oic.r.airflowcontrol'].

15574 **B.4.4 Swagger2.0 Definition**

```

15575 {
15576   "swagger": "2.0",
15577   "info": {
15578     "title": "Air Flow Control",
15579     "version": "v1.1.0-20160519",
15580     "license": {
15581       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
15582       "x-description": "Redistribution and use in source and binary forms, with or without
15583 modification, are permitted provided that the following conditions are met:\n      1.
15584 Redistributions of source code must retain the above copyright notice, this list of conditions and
15585 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
15586 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
15587 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
15588 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
15589 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
15590 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
15591 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
15592 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
15593 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
15594 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
15595 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
15596 OF SUCH DAMAGE.\n"
15597     }
15598   },
15599   "schemes": ["http"],
15600   "consumes": ["application/json"],
15601   "produces": ["application/json"],
15602   "paths": {
15603     "/AirFlowControlResURI" : {
15604       "get": {
15605         "description": "This resource describes the attributes associated with control of air
15606 flow,\nfor example as modelled by a Thermostat (fan), Room A/C or other device.\nThe resource is a
15607 composite resource being made up as a collection of:\n AirFlow Resource\n BinarySwitch
15608 Resource\nRetrieves the current air flow control values.\n",
15609         "parameters": [
15610           {"$ref": "#/parameters/interface-all"}
15611         ],
15612         "responses": {
  
```

```

15613     "200": {
15614         "description" : "",
15615         "x-example":
15616         {
15617             "rt": ["oic.r.airflowcontrol"],
15618             "id": "unique_example_id",
15619             "airFlowControl": [
15620                 {
15621                     "href": "/BinarySwitchResURI",
15622                     "rel": "contains",
15623                     "rt": ["oic.r.switch.binary"],
15624                     "if": ["oic.if.a"],
15625                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
15626                 },
15627                 {
15628                     "href": "/AirFlowResURI",
15629                     "rel": "contains",
15630                     "rt": ["oic.r.airflow"],
15631                     "if": ["oic.if.a"],
15632                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
15633                 }
15634             ]
15635         }
15636     },
15637     "schema": { "$ref": "#/definitions/AirFlowControl" }
15638 }
15639 },
15640 ],
15641 "post": {
15642     "description": "Sets the current air flow control values using the batch interface\n",
15643     "parameters": [
15644         {"$ref": "#/parameters/interface-b"},
15645         {
15646             "name": "body",
15647             "in": "body",
15648             "required": true,
15649             "schema": { "$ref": "#/definitions/AirFlowControlBatch" },
15650             "x-example":
15651             {
15652                 "id": "unique_example_id",
15653                 "airFlowControl": [
15654                     {
15655                         "id": "unique_example_id",
15656                         "value": true
15657                     },
15658                     {
15659                         "id": "unique_example_id",
15660                         "direction": "right",
15661                         "speed": 3
15662                     }
15663                 ]
15664             }
15665         }
15666     ],
15667     "responses": {
15668         "200": {
15669             "description" : "",
15670             "x-example":
15671             {
15672                 "id": "unique_example_id",
15673                 "airFlowControl": [
15674                     {
15675                         "id": "unique_example_id",
15676                         "value": true
15677                     },
15678                     {
15679                         "id": "unique_example_id",
15680                         "direction": "right",
15681                         "speed": 3
15682                     }
15683                 ]

```

```

15684         }
15685     },
15686     "schema": { "$ref": "#/definitions/AirFlowControlBatch" }
15687 },
15688 "403": {
15689     "description": "This response is generated by the OIC Server when the client
15690 sends:\n An update with an invalid property value for direction.\n An update with an out of range
15691 property value for speed.\nThe server responds with the current resource representation.\n",
15692     "x-example":
15693     {
15694         "id": "unique_example_id",
15695         "airFlowControl": [
15696             {
15697                 "id": "unique_example_id",
15698                 "value": true
15699             },
15700             {
15701                 "id": "unique_example_id",
15702                 "direction": "right",
15703                 "speed": 3
15704             }
15705         ]
15706     }
15707 },
15708     "schema": { "$ref": "#/definitions/AirFlowControlBatch" }
15709 }
15710 }
15711 }
15712 },
15713 },
15714 "parameters": {
15715     "interface-b" : {
15716         "in" : "query",
15717         "name" : "if",
15718         "type" : "string",
15719         "enum" : ["oic.if.b"]
15720     },
15721     "interface-all" : {
15722         "in" : "query",
15723         "name" : "if",
15724         "type" : "string",
15725         "enum" : ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
15726     }
15727 },
15728 "definitions": {
15729     "AirFlowControl" :
15730     {
15731         "properties": {
15732             "airFlowControl": {
15733                 "items": {
15734                     "properties": {
15735                         "anchor": {
15736                             "description": "This is used to override the context URI e.g. override the URI of
15737 the containing collection",
15738                             "format": "uri",
15739                             "maxLength": 256,
15740                             "type": "string"
15741                         },
15742                         "di": {
15743                             "description": "Unique identifier for device (UUID)",
15744                             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
15745 F0-9]{12}$",
15746                             "type": "string"
15747                         },
15748                         "eps": {
15749                             "description": "the Endpoint information of the target Resource",
15750                             "items": {
15751                                 "properties": {
15752                                     "ep": {
15753                                         "description": "URI with Transport Protocol Suites + Endpoint Locator as
15754 specified in 10.2.1",

```

```

15755         "format": "uri",
15756         "type": "string"
15757     },
15758     "pri": {
15759         "description": "The priority among multiple Endpoints as specified in
15760 10.2.3",
15761         "minimum": 1,
15762         "type": "integer"
15763     }
15764 },
15765 "type": "object"
15766 },
15767 "type": "array"
15768 },
15769 "href": {
15770     "description": "This is the target URI, it can be specified as a Relative
15771 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
15772 make it unique.",
15773     "format": "uri",
15774     "maxLength": 256,
15775     "type": "string"
15776 },
15777 "if": {
15778     "description": "The interface set supported by this resource",
15779     "items": {
15780         "enum": [
15781             "oic.if.baseline",
15782             "oic.if.ll",
15783             "oic.if.b",
15784             "oic.if.rw",
15785             "oic.if.r",
15786             "oic.if.a",
15787             "oic.if.s"
15788         ],
15789         "type": "string"
15790     },
15791     "minItems": 1,
15792     "type": "array"
15793 },
15794 "ins": {
15795     "description": "The instance identifier for this web link in an array of web
15796 links - used in collections",
15797     "oneOf": [
15798         {
15799             "description": "An ordinal number that is not repeated - must be unique in
15800 the collection context",
15801             "type": "integer"
15802         },
15803         {
15804             "description": "Any unique string including a URI",
15805             "format": "uri",
15806             "maxLength": 256,
15807             "type": "string"
15808         },
15809         {
15810             "description": "Unique identifier (UUID)",
15811             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
15812 fA-F0-9]{12}$",
15813             "type": "string"
15814         }
15815     ]
15816 },
15817 "p": {
15818     "description": "Specifies the framework policies on the Resource referenced by
15819 the target URI",
15820     "properties": {
15821         "bm": {
15822             "description": "Specifies the framework policies on the Resource referenced
15823 by the target URI for e.g. observable and discoverable",
15824             "type": "integer"
15825         }
15826     }
15827 }

```

```

15826     },
15827     "required": [
15828         "bm"
15829     ],
15830     "type": "object"
15831 },
15832 "rel": {
15833     "description": "The relation of the target URI referenced by the link to the
15834 context URI",
15835     "oneOf": [
15836         {
15837             "default": [
15838                 "hosts"
15839             ],
15840             "items": {
15841                 "maxLength": 64,
15842                 "type": "string"
15843             },
15844             "minItems": 1,
15845             "type": "array"
15846         },
15847         {
15848             "default": "hosts",
15849             "maxLength": 64,
15850             "type": "string"
15851         }
15852     ]
15853 },
15854 "rt": {
15855     "description": "Resource Type",
15856     "items": {
15857         "maxLength": 64,
15858         "type": "string"
15859     },
15860     "minItems": 1,
15861     "type": "array"
15862 },
15863 "title": {
15864     "description": "A title for the link relation. Can be used by the UI to provide a
15865 context",
15866     "maxLength": 64,
15867     "type": "string"
15868 },
15869 "type": {
15870     "default": "application/cbor",
15871     "description": "A hint at the representation of the resource referenced by the
15872 target URI. This represents the media types that are used for both accepting and emitting",
15873     "items": {
15874         "maxLength": 64,
15875         "type": "string"
15876     },
15877     "minItems": 1,
15878     "type": "array"
15879 }
15880 },
15881 "required": [
15882     "href",
15883     "rt",
15884     "if"
15885 ],
15886 "type": "object"
15887 },
15888 "maxItems": 2,
15889 "minItems": 2,
15890 "type": "array"
15891 },
15892 "id": {
15893     "description": "Instance ID of this specific resource",
15894     "maxLength": 64,
15895     "readOnly": true,
15896     "type": "string"

```



```

15897     },
15898     "if": {
15899       "description": "The interface set supported by this resource",
15900       "items": {
15901         "enum": [
15902           "oic.if.baseline",
15903           "oic.if.ll",
15904           "oic.if.b",
15905           "oic.if.lb",
15906           "oic.if.rw",
15907           "oic.if.r",
15908           "oic.if.a",
15909           "oic.if.s"
15910         ],
15911         "type": "string"
15912       },
15913       "minItems": 1,
15914       "readOnly": true,
15915       "type": "array"
15916     },
15917     "n": {
15918       "description": "Friendly name of the resource",
15919       "maxLength": 64,
15920       "readOnly": true,
15921       "type": "string"
15922     },
15923     "precision": {
15924       "description": "Accuracy granularity of the exposed value",
15925       "readOnly": true,
15926       "type": "number"
15927     },
15928     "range": {
15929       "description": "The valid range for the value Property",
15930       "items": {
15931         "anyOf": [
15932           {
15933             "type": "number"
15934           },
15935           {
15936             "type": "integer"
15937           }
15938         ]
15939       },
15940       "maxItems": 2,
15941       "minItems": 2,
15942       "readOnly": true,
15943       "type": "array"
15944     },
15945     "rt": {
15946       "description": "Resource Type",
15947       "items": {
15948         "maxLength": 64,
15949         "type": "string"
15950       },
15951       "minItems": 1,
15952       "readOnly": true,
15953       "type": "array"
15954     },
15955     "step": {
15956       "anyOf": [
15957         {
15958           "type": "integer"
15959         },
15960         {
15961           "type": "number"
15962         }
15963       ],
15964       "description": "Step value across the defined range",
15965       "readOnly": true
15966     },
15967     "value": {

```

```

15968         "anyOf": [
15969             {
15970                 "type": "array"
15971             },
15972             {
15973                 "type": "string"
15974             },
15975             {
15976                 "type": "boolean"
15977             },
15978             {
15979                 "type": "integer"
15980             },
15981             {
15982                 "type": "number"
15983             },
15984             {
15985                 "type": "object"
15986             }
15987         ],
15988         "description": "The value sensed or actuated by this Resource"
15989     },
15990 },
15991 "type": "object"
15992 }
15993
15994 ,
15995 "AirFlowControlBatch" :
15996 {
15997     "properties": {
15998         "airFlowControl": {
15999             "items": {
16000                 "anyOf": [
16001                     {
16002                         "properties": {
16003                             "value": {
16004                                 "description": "Status of the switch",
16005                                 "type": "boolean"
16006                             }
16007                         },
16008                         "type": "object"
16009                     },
16010                     {
16011                         "properties": {
16012                             "automode": {
16013                                 "description": "Status of the automode feature, if on speed is set by the
16014 device",
16015                                 "enum": [
16016                                     "On",
16017                                     "Off"
16018                                 ]
16019                             },
16020                             "direction": {
16021                                 "description": "Directionality of the air flow",
16022                                 "type": "string"
16023                             },
16024                             "speed": {
16025                                 "description": "Current speed level",
16026                                 "type": "integer"
16027                             },
16028                             "supporteddirections": {
16029                                 "description": "Array of possible direction settings for this instance of the
16030 Resource Type",
16031                                 "items": {
16032                                     "minItems": 1,
16033                                     "type": "string",
16034                                     "uniqueItems": true
16035                                 },
16036                                 "readOnly": true,
16037                                 "type": "array"
16038                             }
16039                         }
16040                     }
16041                 ]
16042             }
16043         }
16044     }
16045 }

```

```

16039         },
16040         "type": "object"
16041     }
16042 ]
16043 },
16044 "type": "array"
16045 },
16046 "id": {
16047     "description": "Instance ID of this specific resource",
16048     "maxLength": 64,
16049     "readOnly": true,
16050     "type": "string"
16051 },
16052 "if": {
16053     "description": "The interface set supported by this resource",
16054     "items": {
16055         "enum": [
16056             "oic.if.baseline",
16057             "oic.if.ll",
16058             "oic.if.b",
16059             "oic.if.lb",
16060             "oic.if.rw",
16061             "oic.if.r",
16062             "oic.if.a",
16063             "oic.if.s"
16064         ],
16065         "type": "string"
16066     },
16067     "minItems": 1,
16068     "readOnly": true,
16069     "type": "array"
16070 },
16071 "n": {
16072     "description": "Friendly name of the resource",
16073     "maxLength": 64,
16074     "readOnly": true,
16075     "type": "string"
16076 },
16077 "precision": {
16078     "description": "Accuracy granularity of the exposed value",
16079     "readOnly": true,
16080     "type": "number"
16081 },
16082 "range": {
16083     "description": "The valid range for the value Property",
16084     "items": {
16085         "anyOf": [
16086             {
16087                 "type": "number"
16088             },
16089             {
16090                 "type": "integer"
16091             }
16092         ]
16093     },
16094     "maxItems": 2,
16095     "minItems": 2,
16096     "readOnly": true,
16097     "type": "array"
16098 },
16099 "rt": {
16100     "description": "Resource Type",
16101     "items": {
16102         "maxLength": 64,
16103         "type": "string"
16104     },
16105     "minItems": 1,
16106     "readOnly": true,
16107     "type": "array"
16108 },
16109 "step": {

```

```

16110         "anyOf": [
16111             {
16112                 "type": "integer"
16113             },
16114             {
16115                 "type": "number"
16116             }
16117         ],
16118         "description": "Step value across the defined range",
16119         "readOnly": true
16120     },
16121     "value": {
16122         "anyOf": [
16123             {
16124                 "type": "array"
16125             },
16126             {
16127                 "type": "string"
16128             },
16129             {
16130                 "type": "boolean"
16131             },
16132             {
16133                 "type": "integer"
16134             },
16135             {
16136                 "type": "number"
16137             },
16138             {
16139                 "type": "object"
16140             }
16141         ],
16142         "description": "The value sensed or actuated by this Resource"
16143     }
16144 },
16145 "required": [
16146     "airFlowControl"
16147 ],
16148 "type": "object"
16149 }
16150 }
16151 }
16152 }
16153

```

16154 **B.4.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
airFlowControl	array: see schema	yes		
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property

step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema	yes	Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
airFlowControl	array: see schema			
rt	array: see schema	yes	Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource

16155 **B.4.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirFlowControlResURI		get	post		

16156 **B.5 Air Quality**

16157 **B.5.1 Introduction**

16158 This resource describes a qualitative or measured contaminant that can be used to infer Air Quality.
16159 Measured is the actual sensed value with units per contaminant type as described below.
16160 Qualitative is a representative value within the range provided where the minimum value is minimum
16161 contamination and maximum value is maximum contamination for the specific contaminant.
16162 The valueType indicates a qualitative or measured reading within the contaminantvalue Property.
16163 contaminantvalue contains the actual measured or qualitative level.
16164 range contains the allowed range for the value that is being reported (from oic.r.baseresource).
16165 If valueType is 'Measured' then the units for the contaminant types are as follows:
16166 Methanal (also known as Formaldehyde): CH₂O (ug/m³),
16167 Carbon Dioxide: CO₂ (ppm),
16168 Carbon Monoxide: CO (ppm),
16169 Particulate Matter (less than 2.5 microns in diameter): PM_{2.5} (ug/m³),
16170 Particulate Matter (less than 10 microns in diameter): PM₁₀ (ug/m³),
16171 Volatile Organic Compounds: VOC (ug/m³)

16172 Retrieves the current air quality.
16173

16174 B.5.2 Example URI

16175 /AirQualityResURI

16176 B.5.3 Resource Type

16177 The resource type (rt) is defined as: ['oic.r.airquality'].

16178 B.5.4 Swagger2.0 Definition

```
16179 {  
16180   "swagger": "2.0",  
16181   "info": {  
16182     "title": "Air Quality",  
16183     "version": "v1.1.0-20160519",  
16184     "license": {  
16185       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
16186       "x-description": "Redistribution and use in source and binary forms, with or without  
16187 modification, are permitted provided that the following conditions are met:\n      1.  
16188 Redistributions of source code must retain the above copyright notice, this list of conditions and  
16189 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
16190 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
16191 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
16192 Connectivity Foundation, INC. \\\n      AS IS\\n AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
16193 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
16194 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
16195 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
16196 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
16197 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
16198 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
16199 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
16200 OF SUCH DAMAGE.\n    }  
16201   },  
16202   "schemes": ["http"],  
16203   "consumes": ["application/json"],  
16204   "produces": ["application/json"],  
16205   "paths": {  
16206     "/AirQualityResURI" : {  
16207       "get": {  
16208         "description": "This resource describes a qualitative or measured contaminant that can be  
16209 used to infer Air Quality.\nMeasured is the actual sensed value with units per contaminant type as  
16210 described below.\nQualitative is a representative value within the range provided where the minium  
16211 value is minimum contamination and maximum value is maximum contamination for the specific  
16212 contaminant.\nThe valueType indicates a qualitative or measured reading within the contaminantvalue  
16213 Property.\ncontaminantvalue contains the actual measured or qualitative level.\nrange contains the  
16214 allowed range for the value that is being reported (from oic.r.baseresource).\nIf valueType is  
16215 'Measured' then the units for the contaminant types are as follows:\nMethanal (also known as  
16216 Formaldehyde): CH2O (ug/m^3),\nCarbon Dioxide: CO2 (ppm),\nCarbon Monoxide: CO (ppm),\n  
16217 Particulate Matter (less than 2.5 microns in diameter): PM2.5 (ug/m^3),\nParticulate Matter (less  
16218 than 10 microns in diameter): PM10 (ug/m^3),\nVolatile Organic Compounds: VOC (ug/m^3)\nRetrieves  
16219 the current air quality.\n",  
16220         "parameters": [  
16221           { "$ref": "#/parameters/interface" }  
16222         ],  
16223         "responses": {  
16224           "200": {  
16225             "description": "",  
16226             "x-example":  
16227               {  
16228                 "rt": ["oic.r.airquality"],  
16229                 "id": "unique_example_id",  
16230                 "contaminanttype": "CO",  
16231                 "valuetype": "Measured",  
16232                 "contaminantvalue": 10,  
16233                 "range": [0,500]  
16234               }  
16235             }  
16236           },  
16237           "schema": { "$ref": "#/definitions/AirQuality" }  
16238         }  
16239       }  
16240     }  
16241   }  
16242 }
```

```

16238     }
16239   }
16240 }
16241 }
16242 },
16243 "parameters": {
16244   "interface": {
16245     "in": "query",
16246     "name": "if",
16247     "type": "string",
16248     "enum": ["oic.if.s", "oic.if.baseline"]
16249   }
16250 },
16251 "definitions": {
16252   "AirQuality": {
16253     {
16254     "properties": {
16255       "contaminanttype": {
16256         "description": "The contaminant being measured.",
16257         "enum": [
16258           "CH20",
16259           "CO2",
16260           "CO",
16261           "PM2.5",
16262           "PM10",
16263           "VOC",
16264           "Smoke",
16265           "Odor",
16266           "AirPollution"
16267         ],
16268         "readOnly": true
16269       },
16270       "contaminantvalue": {
16271         "description": "The measured or qualitative value for the contaminant.",
16272         "readOnly": true,
16273         "type": "integer"
16274       },
16275       "id": {
16276         "description": "Instance ID of this specific resource",
16277         "maxLength": 64,
16278         "readOnly": true,
16279         "type": "string"
16280       },
16281       "if": {
16282         "description": "The interface set supported by this resource",
16283         "items": {
16284           "enum": [
16285             "oic.if.baseline",
16286             "oic.if.ll",
16287             "oic.if.b",
16288             "oic.if.lb",
16289             "oic.if.rw",
16290             "oic.if.r",
16291             "oic.if.a",
16292             "oic.if.s"
16293           ],
16294           "type": "string"
16295         },
16296         "minItems": 1,
16297         "readOnly": true,
16298         "type": "array"
16299       },
16300       "n": {
16301         "description": "Friendly name of the resource",
16302         "maxLength": 64,
16303         "readOnly": true,
16304         "type": "string"
16305       },
16306       "precision": {
16307         "description": "Accuracy granularity of the exposed value",
16308         "readOnly": true,

```

```

16309         "type": "number"
16310     },
16311     "range": {
16312         "description": "The valid range for the value Property",
16313         "items": {
16314             "anyOf": [
16315                 {
16316                     "type": "number"
16317                 },
16318                 {
16319                     "type": "integer"
16320                 }
16321             ]
16322         },
16323         "maxItems": 2,
16324         "minItems": 2,
16325         "readOnly": true,
16326         "type": "array"
16327     },
16328     "rt": {
16329         "description": "Resource Type",
16330         "items": {
16331             "maxLength": 64,
16332             "type": "string"
16333         },
16334         "minItems": 1,
16335         "readOnly": true,
16336         "type": "array"
16337     },
16338     "step": {
16339         "anyOf": [
16340             {
16341                 "type": "integer"
16342             },
16343             {
16344                 "type": "number"
16345             }
16346         ],
16347         "description": "Step value across the defined range",
16348         "readOnly": true
16349     },
16350     "value": {
16351         "anyOf": [
16352             {
16353                 "type": "array"
16354             },
16355             {
16356                 "type": "string"
16357             },
16358             {
16359                 "type": "boolean"
16360             },
16361             {
16362                 "type": "integer"
16363             },
16364             {
16365                 "type": "number"
16366             },
16367             {
16368                 "type": "object"
16369             }
16370         ],
16371         "description": "The value sensed or actuated by this Resource"
16372     },
16373     "valuetype": {
16374         "description": "Indicates whether the provided value is qualitative or measured.",
16375         "enum": [
16376             "Qualitative",
16377             "Measured"
16378         ],
16379         "readOnly": true

```



```

16380     }
16381   },
16382   "required": [
16383     "contaminantvalue",
16384     "contaminanttype",
16385     "valuetype",
16386     "range"
16387   ],
16388   "type": "object"
16389 }
16390 }
16391 }
16392 }
16393 }

```

16394 **B.5.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
contaminantvalue	integer	yes	Read Only	The measured or qualitative value for the contaminant.
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
range	array: see schema	yes	Read Only	The valid range for the value Property
valuetype	multiple types: see schema	yes	Read Only	Indicates whether the provided value is qualitative or measured.
contaminanttype	multiple types: see schema	yes	Read Only	The contaminant being measured.
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type

16395 **B.5.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirQualityResURI		get			

16396 **B.6 Air Quality Collection**

16397 **B.6.1 Introduction**

16398 This resource describes a sensor that provides the qualitative or measured Air Quality.
16399 The resource is a collection of instances of oic.r.airquality detailing the individual exposed
16400 contaminant measures
16401 There is one collection entry per contaminant type supported by the device. A device must expose
16402 at least one measured or qualitative value.
16403 Retrieves the current air quality.
16404

16405 **B.6.2 Example URI**

16406 /AirQualityBaselineResURI

16407 **B.6.3 Resource Type**

16408 The resource type (rt) is defined as: ['oic.r.airqualitycollection', 'oic.wk.col'].

16409 **B.6.4 Swagger2.0 Definition**

```
16410 {
16411   "swagger": "2.0",
16412   "info": {
16413     "title": "Air Quality Collection",
16414     "version": "v1.1.0-20160519",
16415     "license": {
16416       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
16417       "x-description": "Redistribution and use in source and binary forms, with or without
16418 modification, are permitted provided that the following conditions are met:\n      1.
16419 Redistributions of source code must retain the above copyright notice, this list of conditions and
16420 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
16421 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
16422 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
16423 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
16424 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
16425 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
16426 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
16427 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
16428 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
16429 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
16430 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
16431 OF SUCH DAMAGE.\n"
16432   }
16433 },
16434 "schemes": ["http"],
16435 "consumes": ["application/json"],
16436 "produces": ["application/json"],
16437 "paths": {
16438   "/AirQualityLLResURI" : {
16439     "get": {
16440       "description": "This resource describes a sensor that provides the qualitative or measured
16441 Air Quality.\nThe resource is a collection of instances of oic.r.airquality detailing the
16442 individual exposed contaminant measures\nThere is one collection entry per contaminant type
16443 supported by the device. A device must expose at least one measured or qualitative
16444 value.\nRetrieves the current air quality.\n",
16445       "parameters": [
16446       ],
16447       "responses": {
16448         "200": {
16449           "description": "",
16450           "x-example":
16451             [
16452               {
16453                 "href": "/myCOMeasureResURI", "rt": ["oic.r.airquality"], "if":
16454                 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
16455                 {
16456                   "href": "/myCO2ResURI", "rt": ["oic.r.airquality"], "if":
16457                 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
16458               ]
16459             ]
16460         }
16461       }
16462     }
16463   }
16464 }
```

```

16458         "schema": { "$ref": "#/definitions/AirQuality-ll" }
16459     }
16460 }
16461 }
16462 },
16463 "/AirQualityBaselineResURI" : {
16464     "get": {
16465         "description": "This resource describes a sensor that provides the qualitative or measured
16466 Air Quality.\n\nThe resource is a collection of instances of oic.r.airquality detailing the
16467 individual exposed contaminant measures\n\nThere is one collection entry per contaminant type
16468 supported by the device. A device must expose at least one measured or qualitative
16469 value.\n\nRetrieves the current air quality.\n",
16470         "parameters": [
16471             ],
16472         "responses": {
16473             "200": {
16474                 "description": "",
16475                 "x-example":
16476                 {
16477                     "rt": [ "oic.r.airqualitycollection", "oic.wk.col" ],
16478                     "if": [ "oic.if.baseline", "oic.if.ll" ],
16479                     "id": "unique_example_id",
16480                     "links": [
16481                         { "href": "/myCOMeasureResURI", "rt": [ "oic.r.airquality" ], "if":
16482 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] },
16483                         { "href": "/myCO2ResURI", "rt": [ "oic.r.airquality" ], "if":
16484 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] }
16485                     ]
16486                 }
16487             },
16488             "schema": { "$ref": "#/definitions/AirQuality" }
16489         }
16490     }
16491 }
16492 },
16493 },
16494 "parameters": {
16495     "interface-ll" : {
16496         "in" : "query",
16497         "name" : "if",
16498         "type" : "string",
16499         "enum" : [ "oic.if.ll" ]
16500     },
16501     "interface-baseline" : {
16502         "in" : "query",
16503         "name" : "if",
16504         "type" : "string",
16505         "enum" : [ "oic.if.baseline" ]
16506     },
16507     "interface-all" : {
16508         "in" : "query",
16509         "name" : "if",
16510         "type" : "string",
16511         "enum" : [ "oic.if.ll", "oic.if.baseline" ]
16512     }
16513 },
16514 "definitions": {
16515     "AirQuality-ll" : {
16516         "title" :
16517             "Air Quality Collection Link List Schema (auto merged)"
16518     },
16519     "items" :
16520     {
16521         "$ref": "#/definitions/oic.oic-link"
16522     }
16523 },
16524 "type" :
16525 "array"
16526 }
16527 ,
16528 ,

```

```

16529     "AirQuality" : {
16530         "properties": {
16531             "rt" :
16532                 {
16533                     "items": {
16534                         "enum": [
16535                             "oic.r.airqualitycollection",
16536                             "oic.wk.col"
16537                         ]
16538                     },
16539                     "maxItems": 2,
16540                     "minItems": 2,
16541                     "type": "array",
16542                     "uniqueItems": true
16543                 },
16544         "links" :
16545             {
16546                 "description": "A set of simple or individual OIC Links.",
16547                 "items": {
16548                     "properties": {
16549                         "anchor": {
16550                             "description": "This is used to override the context URI e.g. override the URI of
16551 the containing collection.",
16552                             "format": "uri",
16553                             "maxLength": 256,
16554                             "type": "string"
16555                         },
16556                         "di": {
16557                             "description": "The Device ID formatted according to IETF RFC 4122.",
16558                             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
16559 9]{12}$",
16560                             "type": "string"
16561                         },
16562                         "eps": {
16563                             "description": "the Endpoint information of the target Resource",
16564                             "items": {
16565                                 "properties": {
16566                                     "ep": {
16567                                         "description": "Transport Protocol Suite + Endpoint Locator",
16568                                         "format": "uri",
16569                                         "type": "string"
16570                                     },
16571                                     "pri": {
16572                                         "description": "The priority among multiple Endpoints",
16573                                         "minimum": 1,
16574                                         "type": "integer"
16575                                     }
16576                                 }
16577                             },
16578                             "type": "object"
16579                         },
16580                         "type": "array"
16581                     },
16582                     "href": {
16583                         "description": "This is the target URI, it can be specified as a Relative Reference
16584 or fully-qualified URI.",
16585                         "format": "uri",
16586                         "maxLength": 256,
16587                         "type": "string"
16588                     },
16589                     "if": {
16590                         "description": "The interface set supported by this resource",
16591                         "items": {
16592                             "enum": [
16593                                 "oic.if.baseline",
16594                                 "oic.if.ll",
16595                                 "oic.if.b",
16596                                 "oic.if.rw",
16597                                 "oic.if.r",
16598                                 "oic.if.a",
16599                                 "oic.if.s"

```

```

16600         ],
16601         "type": "string"
16602     },
16603     "minItems": 1,
16604     "type": "array"
16605 },
16606 "ins": {
16607     "description": "The instance identifier for this web link in an array of web links
16608 - used in collections",
16609     "type": "integer"
16610 },
16611 "p": {
16612     "description": "Specifies the framework policies on the Resource referenced by the
16613 target URI",
16614     "properties": {
16615         "bm": {
16616             "description": "Specifies the framework policies on the Resource referenced by
16617 the target URI for e.g. observable and discoverable",
16618             "type": "integer"
16619         }
16620     },
16621     "required": [
16622         "bm"
16623     ],
16624     "type": "object"
16625 },
16626 "rel": {
16627     "description": "The relation of the target URI referenced by the link to the
16628 context URI",
16629     "oneOf": [
16630         {
16631             "default": [
16632                 "hosts"
16633             ],
16634             "items": {
16635                 "maxLength": 64,
16636                 "type": "string"
16637             },
16638             "minItems": 1,
16639             "type": "array"
16640         },
16641         {
16642             "default": "hosts",
16643             "maxLength": 64,
16644             "type": "string"
16645         }
16646     ]
16647 },
16648 "rt": {
16649     "description": "Resource Type of the Resource",
16650     "items": {
16651         "maxLength": 64,
16652         "type": "string"
16653     },
16654     "minItems": 1,
16655     "type": "array"
16656 },
16657 "title": {
16658     "description": "A title for the link relation. Can be used by the UI to provide a
16659 context.",
16660     "maxLength": 64,
16661     "type": "string"
16662 },
16663 "type": {
16664     "default": "application/cbor",
16665     "description": "A hint at the representation of the resource referenced by the
16666 target URI. This represents the media types that are used for both accepting and emitting.",
16667     "items": {
16668         "maxLength": 64,
16669         "type": "string"
16670     },

```

```

16671         "minItems": 1,
16672         "type": "array"
16673     }
16674 },
16675     "required": [
16676         "href",
16677         "rt",
16678         "if"
16679     ],
16680     "type": "object"
16681 },
16682     "type": "array"
16683 },
16684
16685 "n" :
16686     {
16687         "description": "Friendly name of the resource",
16688         "maxLength": 64,
16689         "readOnly": true,
16690         "type": "string"
16691     },
16692
16693 "rts" :
16694     {
16695         "items": {
16696             "anyOf": [
16697                 {
16698                     "enum": [
16699                         "oic.r.airquality",
16700                         "oic.r.value.conditional"
16701                     ]
16702                 },
16703                 {
16704                     "enum": [
16705                         "oic.r.airquality"
16706                     ]
16707                 }
16708             ]
16709         },
16710         "maxItems": 2,
16711         "minItems": 1,
16712         "type": "array",
16713         "uniqueItems": true
16714     },
16715
16716 "id" :
16717     {
16718         "description": "Instance ID of this specific resource",
16719         "maxLength": 64,
16720         "readOnly": true,
16721         "type": "string"
16722     },
16723
16724 "if" :
16725     {
16726         "description": "The interface set supported by this resource",
16727         "items": {
16728             "enum": [
16729                 "oic.if.baseline",
16730                 "oic.if.ll",
16731                 "oic.if.b",
16732                 "oic.if.lb",
16733                 "oic.if.rw",
16734                 "oic.if.r",
16735                 "oic.if.a",
16736                 "oic.if.s"
16737             ],
16738             "type": "string"
16739         },
16740         "minItems": 1,
16741         "readOnly": true,

```

```

16742         "type": "array"
16743     }
16744 }
16745 }
16746 }
16747 , "airqualitycollection-ll" :
16748 {
16749     "items": {
16750         "$ref": "#/definitions/oic.oic-link"
16751     },
16752     "type": "array"
16753 }
16754
16755 , "oic.collection.links.arrayoflinks" :
16756 {
16757     "properties": {
16758         "links": {
16759             "description": "A set of simple or individual OIC Links.",
16760             "items": {
16761                 "properties": {
16762                     "anchor": {
16763                         "description": "This is used to override the context URI e.g. override the URI of
16764 the containing collection.",
16765                         "format": "uri",
16766                         "maxLength": 256,
16767                         "type": "string"
16768                     },
16769                     "di": {
16770                         "description": "The Device ID formatted according to IETF RFC 4122.",
16771                         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
16772 9]{12}$",
16773                         "type": "string"
16774                     },
16775                     "eps": {
16776                         "description": "the Endpoint information of the target Resource",
16777                         "items": {
16778                             "properties": {
16779                                 "ep": {
16780                                     "description": "Transport Protocol Suite + Endpoint Locator",
16781                                     "format": "uri",
16782                                     "type": "string"
16783                                 },
16784                                 "pri": {
16785                                     "description": "The priority among multiple Endpoints",
16786                                     "minimum": 1,
16787                                     "type": "integer"
16788                                 }
16789                             },
16790                             "type": "object"
16791                         },
16792                         "type": "array"
16793                     },
16794                     "href": {
16795                         "description": "This is the target URI, it can be specified as a Relative Reference
16796 or fully-qualified URI.",
16797                         "format": "uri",
16798                         "maxLength": 256,
16799                         "type": "string"
16800                     },
16801                     "if": {
16802                         "description": "The interface set supported by this resource",
16803                         "items": {
16804                             "enum": [
16805                                 "oic.if.baseline",
16806                                 "oic.if.ll",
16807                                 "oic.if.b",
16808                                 "oic.if.rw",
16809                                 "oic.if.r",
16810                                 "oic.if.a",
16811                                 "oic.if.s"
16812                             ],

```

```

16813         "type": "string"
16814     },
16815     "minItems": 1,
16816     "type": "array"
16817 },
16818 "ins": {
16819     "description": "The instance identifier for this web link in an array of web links
16820 - used in collections",
16821     "type": "integer"
16822 },
16823 "p": {
16824     "description": "Specifies the framework policies on the Resource referenced by the
16825 target URI",
16826     "properties": {
16827         "bm": {
16828             "description": "Specifies the framework policies on the Resource referenced by
16829 the target URI for e.g. observable and discoverable",
16830             "type": "integer"
16831         }
16832     },
16833     "required": [
16834         "bm"
16835     ],
16836     "type": "object"
16837 },
16838 "rel": {
16839     "description": "The relation of the target URI referenced by the link to the
16840 context URI",
16841     "oneOf": [
16842         {
16843             "default": [
16844                 "hosts"
16845             ],
16846             "items": {
16847                 "maxLength": 64,
16848                 "type": "string"
16849             },
16850             "minItems": 1,
16851             "type": "array"
16852         },
16853         {
16854             "default": "hosts",
16855             "maxLength": 64,
16856             "type": "string"
16857         }
16858     ]
16859 },
16860 "rt": {
16861     "description": "Resource Type of the Resource",
16862     "items": {
16863         "maxLength": 64,
16864         "type": "string"
16865     },
16866     "minItems": 1,
16867     "type": "array"
16868 },
16869 "title": {
16870     "description": "A title for the link relation. Can be used by the UI to provide a
16871 context.",
16872     "maxLength": 64,
16873     "type": "string"
16874 },
16875 "type": {
16876     "default": "application/cbor",
16877     "description": "A hint at the representation of the resource referenced by the
16878 target URI. This represents the media types that are used for both accepting and emitting.",
16879     "items": {
16880         "maxLength": 64,
16881         "type": "string"
16882     },
16883     "minItems": 1,

```



```

16884         "type": "array"
16885     }
16886 },
16887     "required": [
16888         "href",
16889         "rt",
16890         "if"
16891     ],
16892     "type": "object"
16893 },
16894     "type": "array"
16895 }
16896 }
16897 }
16898
16899     ,"oic.collection.properties" :
16900     {
16901         "description": "A collection is a set of links along with additional properties to describe
16902 the collection itself",
16903         "properties": {
16904             "rts": {
16905                 "$ref": "#/definitions/oic.core/properties/rt",
16906                 "description": "The list of allowable resource types (for Target and anchors) in links
16907 included in the collection"
16908             }
16909         },
16910         "type": "object"
16911     }
16912
16913     ,"oic.core" :
16914     {
16915         "properties": {
16916             "id": {
16917                 "description": "Instance ID of this specific resource",
16918                 "maxLength": 64,
16919                 "readOnly": true,
16920                 "type": "string"
16921             },
16922             "if": {
16923                 "description": "The interface set supported by this resource",
16924                 "items": {
16925                     "enum": [
16926                         "oic.if.baseline",
16927                         "oic.if.ll",
16928                         "oic.if.b",
16929                         "oic.if.lb",
16930                         "oic.if.rw",
16931                         "oic.if.r",
16932                         "oic.if.a",
16933                         "oic.if.s"
16934                     ],
16935                     "type": "string"
16936                 },
16937                 "minItems": 1,
16938                 "readOnly": true,
16939                 "type": "array"
16940             },
16941             "n": {
16942                 "description": "Friendly name of the resource",
16943                 "maxLength": 64,
16944                 "readOnly": true,
16945                 "type": "string"
16946             },
16947             "rt": {
16948                 "description": "Resource Type",
16949                 "items": {
16950                     "maxLength": 64,
16951                     "type": "string"
16952                 },
16953                 "minItems": 1,
16954                 "readOnly": true,

```

```

16955         "type": "array"
16956     }
16957 },
16958 "type": "object"
16959 }
16960
16961 , "oic.r.airqualitycollection" :
16962 {
16963     "properties": {
16964         "rt": {
16965             "items": {
16966                 "enum": [
16967                     "oic.r.airqualitycollection",
16968                     "oic.wk.col"
16969                 ]
16970             },
16971             "maxItems": 2,
16972             "minItems": 2,
16973             "type": "array",
16974             "uniqueItems": true
16975         },
16976         "rts": {
16977             "items": {
16978                 "anyOf": [
16979                     {
16980                         "enum": [
16981                             "oic.r.airquality",
16982                             "oic.r.value.conditional"
16983                         ]
16984                     },
16985                     {
16986                         "enum": [
16987                             "oic.r.airquality"
16988                         ]
16989                     }
16990                 ]
16991             },
16992             "maxItems": 2,
16993             "minItems": 1,
16994             "type": "array",
16995             "uniqueItems": true
16996         }
16997     },
16998     "type": "object"
16999 }
17000
17001 , "oic.oic-link" :
17002 {
17003     "properties": {
17004         "anchor": {
17005             "description": "This is used to override the context URI e.g. override the URI of the
17006 containing collection.",
17007             "format": "uri",
17008             "maxLength": 256,
17009             "type": "string"
17010         },
17011         "di": {
17012             "description": "The Device ID formatted according to IETF RFC 4122.",
17013             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
17014 9]{12}$",
17015             "type": "string"
17016         },
17017         "eps": {
17018             "description": "the Endpoint information of the target Resource",
17019             "items": {
17020                 "properties": {
17021                     "ep": {
17022                         "description": "Transport Protocol Suite + Endpoint Locator",
17023                         "format": "uri",
17024                         "type": "string"
17025                     },

```

```

17026         "pri": {
17027             "description": "The priority among multiple Endpoints",
17028             "minimum": 1,
17029             "type": "integer"
17030         }
17031     },
17032     "type": "object"
17033 },
17034 "type": "array"
17035 },
17036 "href": {
17037     "description": "This is the target URI, it can be specified as a Relative Reference or
17038 fully-qualified URI.",
17039     "format": "uri",
17040     "maxLength": 256,
17041     "type": "string"
17042 },
17043 "if": {
17044     "description": "The interface set supported by this resource",
17045     "items": {
17046         "enum": [
17047             "oic.if.baseline",
17048             "oic.if.ll",
17049             "oic.if.b",
17050             "oic.if.rw",
17051             "oic.if.r",
17052             "oic.if.a",
17053             "oic.if.s"
17054         ],
17055         "type": "string"
17056     },
17057     "minItems": 1,
17058     "type": "array"
17059 },
17060 "ins": {
17061     "description": "The instance identifier for this web link in an array of web links - used
17062 in collections",
17063     "type": "integer"
17064 },
17065 "p": {
17066     "description": "Specifies the framework policies on the Resource referenced by the target
17067 URI",
17068     "properties": {
17069         "bm": {
17070             "description": "Specifies the framework policies on the Resource referenced by the
17071 target URI for e.g. observable and discoverable",
17072             "type": "integer"
17073         }
17074     },
17075     "required": [
17076         "bm"
17077     ],
17078     "type": "object"
17079 },
17080 "rel": {
17081     "description": "The relation of the target URI referenced by the link to the context
17082 URI",
17083     "oneOf": [
17084         {
17085             "default": [
17086                 "hosts"
17087             ],
17088             "items": {
17089                 "maxLength": 64,
17090                 "type": "string"
17091             },
17092             "minItems": 1,
17093             "type": "array"
17094         },
17095         {
17096             "default": "hosts",

```

```

17097         "maxLength": 64,
17098         "type": "string"
17099     }
17100 ]
17101 },
17102 "rt": {
17103     "description": "Resource Type of the Resource",
17104     "items": {
17105         "maxLength": 64,
17106         "type": "string"
17107     },
17108     "minItems": 1,
17109     "type": "array"
17110 },
17111 "title": {
17112     "description": "A title for the link relation. Can be used by the UI to provide a
17113 context.",
17114     "maxLength": 64,
17115     "type": "string"
17116 },
17117 "type": {
17118     "default": "application/cbor",
17119     "description": "A hint at the representation of the resource referenced by the target
17120 URI. This represents the media types that are used for both accepting and emitting.",
17121     "items": {
17122         "maxLength": 64,
17123         "type": "string"
17124     },
17125     "minItems": 1,
17126     "type": "array"
17127 }
17128 },
17129 "required": [
17130     "href",
17131     "rt",
17132     "if"
17133 ],
17134 "type": "object"
17135 }
17136 }
17137 }
17138 }
17139

```

B.6.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rts	array: see schema		Read Only	Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
rt	array: see schema	yes		
links	multiple types: see schema			All forms of links in a collection
drel	string			When specified this is the default relationship to use when an OIC Link does not

				specify an explicit relationship with *rel* parameter
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
rt	array: see schema	yes		Resource Type
eps	array: see schema			the Endpoint information of the target Resource
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
rel	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
title	string			A title for the link relation. Can be used by the UI to provide a context
type	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting
href	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified

				URI. Relative Reference should be used along with the di parameter to make it unique.
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
di	string			Unique identifier for device (UUID)
ins	multiple types: see schema			The instance identifier for this web link in an array of web links - used in collections
if	array: see schema	yes		The interface set supported by this resource

17141 **B.6.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AirQualityBaselineResURI		get			

17142 **B.7 Altimeter**

17143 **B.7.1 Introduction**

17144 This resource describes the properties associated with altimeter.
 17145 Altimeter is a height of the position (metres).
 17146 Retrieves the current the height of the position (metres).
 17147

17148 **B.7.2 Example URI**

17149 /AltimeterResURI

17150 **B.7.3 Resource Type**

17151 The resource type (rt) is defined as: ['oic.r.altimeter'].

17152 **B.7.4 Swagger2.0 Definition**

```

17153 {
17154   "swagger": "2.0",
17155   "info": {
17156     "title": "Altimeter",
17157     "version": "v1.1.0-20160519",
17158     "license": {
17159       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
17160       "x-description": "Redistribution and use in source and binary forms, with or without
17161 modification, are permitted provided that the following conditions are met:\n      1.
17162 Redistributions of source code must retain the above copyright notice, this list of conditions and
17163 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
17164 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
17165 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
17166 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
17167 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
17168 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity

```

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17169 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
17170 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
17171 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
17172 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
17173 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
17174 OF SUCH DAMAGE.\n"
17175 }
17176 },
17177 "schemes": ["http"],
17178 "consumes": ["application/json"],
17179 "produces": ["application/json"],
17180 "paths": {
17181   "/AltimeterResURI" : {
17182     "get": {
17183       "description": "This resource describes the properties associated with
17184 altimeter.\nAltimeter is a height of the position (metres).\nRetrieves the current the height of
17185 the position (metres).\n",
17186       "parameters": [
17187         {"$ref": "#/parameters/interface"}
17188       ],
17189       "responses": {
17190         "200": {
17191           "description": "",
17192           "x-example":
17193             {
17194               "rt": ["oic.r.altimeter"],
17195               "id": "unique_example_id",
17196               "alt": 1500.0
17197             }
17198           ,
17199           "schema": { "$ref": "#/definitions/Altimeter" }
17200         }
17201       }
17202     }
17203   },
17204 },
17205 "parameters": {
17206   "interface" : {
17207     "in" : "query",
17208     "name" : "if",
17209     "type" : "string",
17210     "enum" : ["oic.if.s", "oic.if.baseline"]
17211   }
17212 },
17213 "definitions": {
17214   "Altimeter" :
17215     {
17216       "properties": {
17217         "alt": {
17218           "description": "The current height of the position (metres)",
17219           "minimum": 0,
17220           "readOnly": true,
17221           "type": "number"
17222         },
17223         "id": {
17224           "description": "Instance ID of this specific resource",
17225           "maxLength": 64,
17226           "readOnly": true,
17227           "type": "string"
17228         },
17229         "if": {
17230           "description": "The interface set supported by this resource",
17231           "items": {
17232             "enum": [
17233               "oic.if.baseline",
17234               "oic.if.ll",
17235               "oic.if.b",
17236               "oic.if.lb",
17237               "oic.if.rw",
17238               "oic.if.r",
17239               "oic.if.a",

```

```

17240         "oic.if.s"
17241     ],
17242     "type": "string"
17243 },
17244 "minItems": 1,
17245 "readOnly": true,
17246 "type": "array"
17247 },
17248 "n": {
17249     "description": "Friendly name of the resource",
17250     "maxLength": 64,
17251     "readOnly": true,
17252     "type": "string"
17253 },
17254 "precision": {
17255     "description": "Accuracy granularity of the exposed value",
17256     "readOnly": true,
17257     "type": "number"
17258 },
17259 "range": {
17260     "description": "The valid range for the value Property",
17261     "items": {
17262         "anyOf": [
17263             {
17264                 "type": "number"
17265             },
17266             {
17267                 "type": "integer"
17268             }
17269         ]
17270     },
17271     "maxItems": 2,
17272     "minItems": 2,
17273     "readOnly": true,
17274     "type": "array"
17275 },
17276 "rt": {
17277     "description": "Resource Type",
17278     "items": {
17279         "maxLength": 64,
17280         "type": "string"
17281     },
17282     "minItems": 1,
17283     "readOnly": true,
17284     "type": "array"
17285 },
17286 "step": {
17287     "anyOf": [
17288         {
17289             "type": "integer"
17290         },
17291         {
17292             "type": "number"
17293         }
17294     ],
17295     "description": "Step value across the defined range",
17296     "readOnly": true
17297 },
17298 "value": {
17299     "anyOf": [
17300         {
17301             "type": "array"
17302         },
17303         {
17304             "type": "string"
17305         },
17306         {
17307             "type": "boolean"
17308         },
17309         {
17310             "type": "integer"

```



```

17311         },
17312         {
17313           "type": "number"
17314         },
17315         {
17316           "type": "object"
17317         }
17318       ],
17319       "description": "The value sensed or actuated by this Resource"
17320     },
17321     "required": [
17322       "alt"
17323     ],
17324     "type": "object"
17325   }
17326 }
17327 }
17328 }
17329 }
17330 }

```

17331 B.7.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
alt	number	yes	Read Only	The current height of the position (metres)
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

17332 B.7.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AltimeterResURI		get			

17333 B.8 Atmospheric Pressure Sensor

17334 B.8.1 Introduction

17335 This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring
17336 point expressed in millibars.

17337 The value is float which describes the atmospheric pressure in hPa (hectoPascals).
17338 Note that hPa and the also commonly used unit of millibars (mbar) are numerically equivalent.
17339

17340 B.8.2 Example URI

17341 /AtmosphericPressureResURI

17342 B.8.3 Resource Type

17343 The resource type (rt) is defined as: ['oic.r.sensor.atmosphericpressure'].

17344 B.8.4 Swagger2.0 Definition

```
17345 {  
17346   "swagger": "2.0",  
17347   "info": {  
17348     "title": "Atmospheric Pressure Sensor",  
17349     "version": "v1.1.0-20160519",  
17350     "license": {  
17351       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
17352       "x-description": "Redistribution and use in source and binary forms, with or without  
17353 modification, are permitted provided that the following conditions are met:\n      1.  
17354 Redistributions of source code must retain the above copyright notice, this list of conditions and  
17355 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
17356 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
17357 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
17358 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
17359 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
17360 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
17361 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
17362 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
17363 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
17364 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
17365 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
17366 OF SUCH DAMAGE.\n    }  
17367   },  
17368   "schemes": ["http"],  
17369   "consumes": ["application/json"],  
17370   "produces": ["application/json"],  
17371   "paths": {  
17372     "/AtmosphericPressureResURI" : {  
17373       "get": {  
17374         "description": "This resource provides a measurement of Mean Sea Level Pressure experienced  
17375 at the measuring point expressed in millibars.\nThe value is float which describes the atmospheric  
17376 pressure in hPa (hectoPascals).\nNote that hPa and the also commonly used unit of millibars (mbar)  
17377 are numerically equivalent.\n",  
17378         "parameters": [  
17379           { "$ref": "#/parameters/interface" }  
17380         ],  
17381         "responses": {  
17382           "200": {  
17383             "description": "",  
17384             "x-example":  
17385               {  
17386                 "rt": ["oic.r.sensor.atmosphericpressure"],  
17387                 "id": "unique_example_id",  
17388                 "atmosphericPressure": 1000.4  
17389               }  
17390           }  
17391         },  
17392         "schema": { "$ref": "#/definitions/atmosphericPressure" }  
17393       }  
17394     }  
17395   }  
17396 },  
17397 "parameters": {  
17398   "interface" : {  
17399     "in" : "query",  
17400     "name" : "if",  
17401     "type" : "string",
```

```

17403     "enum" : ["oic.if.s", "oic.if.baseline"]
17404   }
17405 },
17406 "definitions": {
17407   "atmosphericPressure" :
17408     {
17409     "properties": {
17410     "atmosphericPressure": {
17411     "description": "Current atmospheric pressure in hPa.",
17412     "readOnly": true,
17413     "type": "number"
17414     },
17415     "id": {
17416     "description": "Instance ID of this specific resource",
17417     "maxLength": 64,
17418     "readOnly": true,
17419     "type": "string"
17420     },
17421     "if": {
17422     "description": "The interface set supported by this resource",
17423     "items": {
17424     "enum": [
17425     "oic.if.baseline",
17426     "oic.if.ll",
17427     "oic.if.b",
17428     "oic.if.lb",
17429     "oic.if.rw",
17430     "oic.if.r",
17431     "oic.if.a",
17432     "oic.if.s"
17433     ],
17434     "type": "string"
17435     },
17436     "minItems": 1,
17437     "readOnly": true,
17438     "type": "array"
17439     },
17440     "n": {
17441     "description": "Friendly name of the resource",
17442     "maxLength": 64,
17443     "readOnly": true,
17444     "type": "string"
17445     },
17446     "precision": {
17447     "description": "Accuracy granularity of the exposed value",
17448     "readOnly": true,
17449     "type": "number"
17450     },
17451     "range": {
17452     "description": "The valid range for the value Property",
17453     "items": {
17454     "anyOf": [
17455     {
17456     "type": "number"
17457     },
17458     {
17459     "type": "integer"
17460     }
17461     ]
17462     },
17463     "maxItems": 2,
17464     "minItems": 2,
17465     "readOnly": true,
17466     "type": "array"
17467     },
17468     "rt": {
17469     "description": "Resource Type",
17470     "items": {
17471     "maxLength": 64,
17472     "type": "string"
17473     },

```

```

17474         "minItems": 1,
17475         "readOnly": true,
17476         "type": "array"
17477     },
17478     "step": {
17479         "anyOf": [
17480             {
17481                 "type": "integer"
17482             },
17483             {
17484                 "type": "number"
17485             }
17486         ],
17487         "description": "Step value across the defined range",
17488         "readOnly": true
17489     },
17490     "value": {
17491         "anyOf": [
17492             {
17493                 "type": "array"
17494             },
17495             {
17496                 "type": "string"
17497             },
17498             {
17499                 "type": "boolean"
17500             },
17501             {
17502                 "type": "integer"
17503             },
17504             {
17505                 "type": "number"
17506             },
17507             {
17508                 "type": "object"
17509             }
17510         ],
17511         "description": "The value sensed or actuated by this Resource"
17512     }
17513 },
17514 "required": [
17515     "atmosphericPressure"
17516 ]
17517 }
17518 }
17519 }
17520 }
17521

```

17522 B.8.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource

id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
atmosphericPressure	number	yes	Read Only	Current atmospheric pressure in hPa.

17523 **B.8.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AtmosphericPressureResURI		get			

17524 **B.9 Audio Controls**

17525 **B.9.1 Introduction**

17526 This resource defines basic audio control functions.
 17527 The volume is an integer containing a percentage [0,100].
 17528 A volume of 0 (zero) means no sound produced.
 17529 A volume of 100 means maximum sound production.
 17530 The mute control is implemented as a boolean.
 17531 A mute value of true means that the device is muted (no audio).
 17532 A mute value of false means that the device is not muted (audio).
 17533

17534 **B.9.2 Example URI**

17535 /AudioResURI

17536 **B.9.3 Resource Type**

17537 The resource type (rt) is defined as: ['oic.r.audio'].

17538 **B.9.4 Swagger2.0 Definition**

```

17539 {
17540   "swagger": "2.0",
17541   "info": {
17542     "title": "Audio Controls",
17543     "version": "v1.1.0-20160519",
17544     "license": {
17545       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
17546       "x-description": "Redistribution and use in source and binary forms, with or without
17547 modification, are permitted provided that the following conditions are met:\n      1.
17548 Redistributions of source code must retain the above copyright notice, this list of conditions and
17549 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
17550 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
17551 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
17552 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
17553 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
17554 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
17555 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
17556 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
17557 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
17558 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
17559 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
17560 OF SUCH DAMAGE.\n"
17561   }
17562 },

```

```

17563     "schemes": ["http"],
17564     "consumes": ["application/json"],
17565     "produces": ["application/json"],
17566     "paths": {
17567         "/AudioResURI" : {
17568             "get": {
17569                 "description": "This resource defines basic audio control functions.\n\nThe volume is an
17570 integer containing a percentage [0,100].\n\nA volume of 0 (zero) means no sound produced.\n\nA volume
17571 of 100 means maximum sound production.\n\nThe mute control is implemented as a boolean.\n\nA mute value
17572 of true means that the device is muted (no audio).\n\nA mute value of false means that the device is
17573 not muted (audio).\n\n",
17574                 "parameters": [
17575                     { "$ref": "#/parameters/interface" }
17576                 ],
17577                 "responses": {
17578                     "200": {
17579                         "description": "",
17580                         "x-example":
17581                         {
17582                             "rt": ["oic.r.audio"],
17583                             "id": "unique_example_id",
17584                             "volume": 50,
17585                             "mute": false
17586                         }
17587                     },
17588                     "schema": { "$ref": "#/definitions/Audio" }
17589                 }
17590             }
17591         },
17592         "post": {
17593             "description": "",
17594             "parameters": [
17595                 { "$ref": "#/parameters/interface" },
17596                 {
17597                     "name": "body",
17598                     "in": "body",
17599                     "required": true,
17600                     "schema": { "$ref": "#/definitions/Audio" },
17601                     "x-example":
17602                     {
17603                         "id": "unique_example_id",
17604                         "volume": 75,
17605                         "mute": false
17606                     }
17607                 }
17608             ],
17609             "responses": {
17610                 "200": {
17611                     "description": "",
17612                     "x-example":
17613                     {
17614                         "id": "unique_example_id",
17615                         "volume": 75,
17616                         "mute": false
17617                     }
17618                 },
17619                 "schema": { "$ref": "#/definitions/Audio" }
17620             }
17621         }
17622     }
17623 },
17624 "parameters": {
17625     "interface": {
17626         "in": "query",
17627         "name": "if",
17628         "type": "string",
17629         "enum": ["oic.if.a", "oic.if.baseline"]
17630     }
17631 },
17632 },
17633 "definitions": {

```

```

17634 "Audio" :
17635 {
17636   "properties": {
17637     "id": {
17638       "description": "Instance ID of this specific resource",
17639       "maxLength": 64,
17640       "readOnly": true,
17641       "type": "string"
17642     },
17643     "if": {
17644       "description": "The interface set supported by this resource",
17645       "items": {
17646         "enum": [
17647           "oic.if.baseline",
17648           "oic.if.ll",
17649           "oic.if.b",
17650           "oic.if.lb",
17651           "oic.if.rw",
17652           "oic.if.r",
17653           "oic.if.a",
17654           "oic.if.s"
17655         ],
17656         "type": "string"
17657       },
17658       "minItems": 1,
17659       "readOnly": true,
17660       "type": "array"
17661     },
17662     "mute": {
17663       "description": "Mute setting of an audio rendering device",
17664       "type": "boolean"
17665     },
17666     "n": {
17667       "description": "Friendly name of the resource",
17668       "maxLength": 64,
17669       "readOnly": true,
17670       "type": "string"
17671     },
17672     "precision": {
17673       "description": "Accuracy granularity of the exposed value",
17674       "readOnly": true,
17675       "type": "number"
17676     },
17677     "range": {
17678       "description": "The valid range for the value Property",
17679       "items": {
17680         "anyOf": [
17681           {
17682             "type": "number"
17683           },
17684           {
17685             "type": "integer"
17686           }
17687         ]
17688       },
17689       "maxItems": 2,
17690       "minItems": 2,
17691       "readOnly": true,
17692       "type": "array"
17693     },
17694     "rt": {
17695       "description": "Resource Type",
17696       "items": {
17697         "maxLength": 64,
17698         "type": "string"
17699       },
17700       "minItems": 1,
17701       "readOnly": true,
17702       "type": "array"
17703     },
17704     "step": {

```

```

17705     "anyOf": [
17706         {
17707             "type": "integer"
17708         },
17709         {
17710             "type": "number"
17711         }
17712     ],
17713     "description": "Step value across the defined range",
17714     "readOnly": true
17715 },
17716 "value": {
17717     "anyOf": [
17718         {
17719             "type": "array"
17720         },
17721         {
17722             "type": "string"
17723         },
17724         {
17725             "type": "boolean"
17726         },
17727         {
17728             "type": "integer"
17729         },
17730         {
17731             "type": "number"
17732         },
17733         {
17734             "type": "object"
17735         }
17736     ],
17737     "description": "The value sensed or actuated by this Resource"
17738 },
17739 "volume": {
17740     "description": "Volume setting of an audio rendering device.",
17741     "maximum": 100,
17742     "minimum": 0,
17743     "type": "integer"
17744 }
17745 },
17746 "required": [
17747     "volume",
17748     "mute"
17749 ],
17750 "type": "object"
17751 }
17752 }
17753 }
17754 }
17755 }

```

17756 **B.9.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
volume	integer	yes		Volume setting of an audio rendering device.
mute	boolean	yes		Mute setting of an audio rendering device
id	string		Read Only	Instance ID of this specific resource

17757 **B.9.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AudioResURI		get	post		

17758 **B.10 Auto Focus**

17759 **B.10.1 Introduction**

17760 This resource describes an auto focus on/off feature.
 17761 The value is a boolean.
 17762 An AutoFocus value of 'true' means that the switch is on.
 17763 An AutoFocus value of 'false' means that the switch is off.
 17764 Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus
 17765 works only in the selected area.
 17766

17767 **B.10.2 Example URI**

17768 /AutoFocusResURI

17769 **B.10.3 Resource Type**

17770 The resource type (rt) is defined as: ['oic.r.autofocus'].

17771 **B.10.4 Swagger2.0 Definition**

```

17772 {
17773   "swagger": "2.0",
17774   "info": {
17775     "title": "Auto Focus",
17776     "version": "v1.1.0-20160519",
17777     "license": {
17778       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
17779       "x-description": "Redistribution and use in source and binary forms, with or without
17780 modification, are permitted provided that the following conditions are met:\n
17781 1.
17782 Redistributions of source code must retain the above copyright notice, this list of conditions and
17783 the following disclaimer.\n
17784 2. Redistributions in binary form must reproduce the above
17785 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
17786 other materials provided with the distribution.\n\n
17787 THIS SOFTWARE IS PROVIDED BY THE Open
17788 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
17789 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
17790 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n
17791 IN NO EVENT SHALL THE Open Connectivity
17792 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
17793 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
17794 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n
17795 HOWEVER CAUSED AND
17796 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
  
```

```

17792 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
17793 OF SUCH DAMAGE.\n"
17794 }
17795 },
17796 "schemes": ["http"],
17797 "consumes": ["application/json"],
17798 "produces": ["application/json"],
17799 "paths": {
17800   "/AutoFocusResURI" : {
17801     "get": {
17802       "description": "This resource describes an auto focus on/off feature.\n\nThe value is a
17803 boolean.\n\nAn AutoFocus value of 'true' means that the switch is on.\n\nAn AutoFocus value of 'false'
17804 means that the switch is off.\n\nNote that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource
17805 definition) is used the autofocus works only in the selected area.\n",
17806       "parameters": [
17807         { "$ref": "#/parameters/interface" }
17808       ],
17809       "responses": {
17810         "200": {
17811           "description": "",
17812           "x-example":
17813             {
17814               "rt": ["oic.r.autofocus"],
17815               "id": "unique_example_id",
17816               "autoFocus": false
17817             }
17818           ,
17819           "schema": { "$ref": "#/definitions/AutoFocus" }
17820         }
17821       }
17822     },
17823     "post": {
17824       "description": "",
17825       "parameters": [
17826         { "$ref": "#/parameters/interface" },
17827         {
17828           "name": "body",
17829           "in": "body",
17830           "required": true,
17831           "schema": { "$ref": "#/definitions/AutoFocus" },
17832           "x-example":
17833             {
17834               "id": "unique_example_id",
17835               "autoFocus": true
17836             }
17837         }
17838       ],
17839       "responses": {
17840         "200": {
17841           "description": "",
17842           "x-example":
17843             {
17844               "id": "unique_example_id",
17845               "autoFocus": true
17846             }
17847           ,
17848           "schema": { "$ref": "#/definitions/AutoFocus" }
17849         }
17850       }
17851     }
17852   }
17853 },
17854 "parameters": {
17855   "interface" : {
17856     "in" : "query",
17857     "name" : "if",
17858     "type" : "string",
17859     "enum" : ["oic.if.a", "oic.if.baseline"]
17860   }
17861 },
17862 "definitions": {

```

```

17863 "AutoFocus" :
17864 {
17865   "properties": {
17866     "autoFocus": {
17867       "description": "Status of the Auto Focus",
17868       "type": "boolean"
17869     },
17870     "id": {
17871       "description": "Instance ID of this specific resource",
17872       "maxLength": 64,
17873       "readOnly": true,
17874       "type": "string"
17875     },
17876     "if": {
17877       "description": "The interface set supported by this resource",
17878       "items": {
17879         "enum": [
17880           "oic.if.baseline",
17881           "oic.if.ll",
17882           "oic.if.b",
17883           "oic.if.lb",
17884           "oic.if.rw",
17885           "oic.if.r",
17886           "oic.if.a",
17887           "oic.if.s"
17888         ],
17889         "type": "string"
17890       },
17891       "minItems": 1,
17892       "readOnly": true,
17893       "type": "array"
17894     },
17895     "n": {
17896       "description": "Friendly name of the resource",
17897       "maxLength": 64,
17898       "readOnly": true,
17899       "type": "string"
17900     },
17901     "precision": {
17902       "description": "Accuracy granularity of the exposed value",
17903       "readOnly": true,
17904       "type": "number"
17905     },
17906     "range": {
17907       "description": "The valid range for the value Property",
17908       "items": {
17909         "anyOf": [
17910           {
17911             "type": "number"
17912           },
17913           {
17914             "type": "integer"
17915           }
17916         ]
17917       },
17918       "maxItems": 2,
17919       "minItems": 2,
17920       "readOnly": true,
17921       "type": "array"
17922     },
17923     "rt": {
17924       "description": "Resource Type",
17925       "items": {
17926         "maxLength": 64,
17927         "type": "string"
17928       },
17929       "minItems": 1,
17930       "readOnly": true,
17931       "type": "array"
17932     },
17933     "step": {

```

```

17934         "anyOf": [
17935             {
17936                 "type": "integer"
17937             },
17938             {
17939                 "type": "number"
17940             }
17941         ],
17942         "description": "Step value across the defined range",
17943         "readOnly": true
17944     },
17945     "value": {
17946         "anyOf": [
17947             {
17948                 "type": "array"
17949             },
17950             {
17951                 "type": "string"
17952             },
17953             {
17954                 "type": "boolean"
17955             },
17956             {
17957                 "type": "integer"
17958             },
17959             {
17960                 "type": "number"
17961             },
17962             {
17963                 "type": "object"
17964             }
17965         ],
17966         "description": "The value sensed or actuated by this Resource"
17967     }
17968 },
17969 "required": [
17970     "autoFocus"
17971 ],
17972 "type": "object"
17973 }
17974 }
17975 }
17976 }
17977 }

```

B.10.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoFocus	boolean	yes		Status of the Auto Focus
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource

value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource

17979 **B.10.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AutoFocusResURI		get	post		

17980 **B.11 Automatic Document Feeder**

17981 **B.11.1 Introduction**

17982 This resource describes the state of an automatic document feeder, typically used with a scanner.
 17983 The states are read only.
 17984 The adfStates is an array of the possible operational states.
 17985 adfProcessing is the OK state, other states are errors or require 'user attention'.
 17986 The currentAdfState is the current value of the ADF state on the device.
 17987 Retrieves the current automatic document feeder state.
 17988

17989 **B.11.2 Example URI**

17990 /AutomaticDocumentFeederResURI

17991 **B.11.3 Resource Type**

17992 The resource type (rt) is defined as: ['oic.r.automaticdocumentfeeder'].

17993 **B.11.4 Swagger2.0 Definition**

```

17994 {
17995   "swagger": "2.0",
17996   "info": {
17997     "title": "Automatic Document Feeder",
17998     "version": "v1.1.0-20160519",
17999     "license": {
18000       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
18001       "x-description": "Redistribution and use in source and binary forms, with or without
18002 modification, are permitted provided that the following conditions are met:\n      1.
18003 Redistributions of source code must retain the above copyright notice, this list of conditions and
18004 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
18005 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
18006 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
18007 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
18008 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
18009 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
18010 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
18011 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
18012 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
18013 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
18014 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
18015 OF SUCH DAMAGE.\n"
18016     }
18017   },
18018   "schemes": ["http"],
18019   "consumes": ["application/json"],
18020   "produces": ["application/json"],
18021   "paths": {
18022     "/AutomaticDocumentFeederResURI" : {
18023       "get": {
18024         "description": "This resource describes the state of an automatic document feeder,
18025 typically used with a scanner.\nThe states are read only.\nThe adfStates is an array of the
18026 possible operational states.\n\ndfProcessing is the OK state, other states are errors or require

```

```

18027 'user attention'.\nThe currentAdfState is the current value of the ADF state on the
18028 device.\nRetrieves the current automatic document feeder state.\n",
18029     "parameters": [
18030         {"$ref": "#/parameters/interface"}
18031     ],
18032     "responses": {
18033         "200": {
18034             "description": "",
18035             "x-example":
18036                 {
18037                     "rt": ["oic.r.automaticdocumentfeeder"],
18038                     "id": "unique_example_id",
18039                     "adfStates": ["adfProcessing", "adfEmpty", "adfJam", "adfLoaded",
18040 "adfMispick", "adfHatchOpen", "adfDuplexPageTooShort", "adfDuplexPageTooLong",
18041 "adfMultipickDetected", "adfInputTrayFailed", "adfInputTrayOverloaded"],
18042                     "currentAdfState": "adfProcessing"
18043                 }
18044             ,
18045             "schema": { "$ref": "#/definitions/AutomaticDocumentFeeder" }
18046         }
18047     }
18048 }
18049 },
18050 },
18051 "parameters": {
18052     "interface": {
18053         "in": "query",
18054         "name": "if",
18055         "type": "string",
18056         "enum": ["oic.if.s", "oic.if.baseline"]
18057     }
18058 },
18059 "definitions": {
18060     "AutomaticDocumentFeeder": {
18061         {
18062             "properties": {
18063                 "adfStates": {
18064                     "description": "array of the possible adf states.",
18065                     "items": {
18066                         "type": "string"
18067                     },
18068                     "readOnly": true,
18069                     "type": "array"
18070                 },
18071                 "currentAdfState": {
18072                     "description": "Current adf state.",
18073                     "readOnly": true,
18074                     "type": "string"
18075                 },
18076                 "id": {
18077                     "description": "Instance ID of this specific resource",
18078                     "maxLength": 64,
18079                     "readOnly": true,
18080                     "type": "string"
18081                 },
18082                 "if": {
18083                     "description": "The interface set supported by this resource",
18084                     "items": {
18085                         "enum": [
18086                             "oic.if.baseline",
18087                             "oic.if.ll",
18088                             "oic.if.b",
18089                             "oic.if.lb",
18090                             "oic.if.rw",
18091                             "oic.if.r",
18092                             "oic.if.a",
18093                             "oic.if.s"
18094                         ],
18095                         "type": "string"
18096                     },
18097                     "minItems": 1,

```

```

18098         "readOnly": true,
18099         "type": "array"
18100     },
18101     "n": {
18102         "description": "Friendly name of the resource",
18103         "maxLength": 64,
18104         "readOnly": true,
18105         "type": "string"
18106     },
18107     "precision": {
18108         "description": "Accuracy granularity of the exposed value",
18109         "readOnly": true,
18110         "type": "number"
18111     },
18112     "range": {
18113         "description": "The valid range for the value Property",
18114         "items": {
18115             "anyOf": [
18116                 {
18117                     "type": "number"
18118                 },
18119                 {
18120                     "type": "integer"
18121                 }
18122             ]
18123         },
18124         "maxItems": 2,
18125         "minItems": 2,
18126         "readOnly": true,
18127         "type": "array"
18128     },
18129     "rt": {
18130         "description": "Resource Type",
18131         "items": {
18132             "maxLength": 64,
18133             "type": "string"
18134         },
18135         "minItems": 1,
18136         "readOnly": true,
18137         "type": "array"
18138     },
18139     "step": {
18140         "anyOf": [
18141             {
18142                 "type": "integer"
18143             },
18144             {
18145                 "type": "number"
18146             }
18147         ],
18148         "description": "Step value across the defined range",
18149         "readOnly": true
18150     },
18151     "value": {
18152         "anyOf": [
18153             {
18154                 "type": "array"
18155             },
18156             {
18157                 "type": "string"
18158             },
18159             {
18160                 "type": "boolean"
18161             },
18162             {
18163                 "type": "integer"
18164             },
18165             {
18166                 "type": "number"
18167             },
18168             {

```

```

18169         "type": "object"
18170     }
18171 },
18172     "description": "The value sensed or actuated by this Resource"
18173 },
18174 },
18175     "required": [
18176         "adfStates",
18177         "currentAdfState"
18178     ],
18179     "type": "object"
18180 }
18181 }
18182 }
18183 }
18184 }

```

18185 **B.11.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
adfStates	array: see schema	yes	Read Only	array of the possible adf states.
currentAdfState	string	yes	Read Only	Current adf state.
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value

18186 **B.11.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AutomaticDocumentFeederResURI		get			

18187 **B.12 Base Resource Schema**

18188 **B.12.1 Introduction**

18189 This is the base resource schema on which all other resources defined in this specification build.
18190 value is the sensed or actuated value of the Resource.
18191 precision is the accuracy granularity of the value.
18192 range is the range over which value is valid.

18193 step is the step function over the defined range if applicable (e.g. always step by '2').
18194 retrieves the state of the resource.

18195 **B.12.2 Example URI**

18196 /BaseResourceSchemaResURI

18197 **B.12.3 Resource Type**

18198 The resource type (rt) is defined as: ['oic.baseresource'].

18199 **B.12.4 Swagger2.0 Definition**

```
18200 {  
18201   "swagger": "2.0",  
18202   "info": {  
18203     "title": "Base Resource Schema",  
18204     "version": "v1.1.0-20160519",  
18205     "license": {  
18206       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
18207       "x-description": "Redistribution and use in source and binary forms, with or without  
18208 modification, are permitted provided that the following conditions are met:\n      1.  
18209 Redistributions of source code must retain the above copyright notice, this list of conditions and  
18210 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
18211 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
18212 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
18213 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
18214 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
18215 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
18216 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
18217 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
18218 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
18219 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
18220 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
18221 OF SUCH DAMAGE.\n    }  
18222   },  
18223   "schemes": ["http"],  
18224   "consumes": ["application/json"],  
18225   "produces": ["application/json"],  
18226   "paths": {  
18227     "/BaseResourceSchemaResURI" : {  
18228       "get": {  
18229         "description": "This is the base resource schema on which all other resources defined in  
18230 this specification build.\nvalue is the sensed or actuated value of the Resource.\nprecision is the  
18231 accuracy granularity of the value.\nrange is the range over which value is valid.\nstep is the step  
18232 function over the defined range if applicable (e.g. always step by '2').\nretrieves the state of  
18233 the resource.",  
18234         "parameters": [  
18235           {"$ref": "#/parameters/interface-baseline"}  
18236         ],  
18237         "responses": {  
18238           "200": {  
18239             "description": "",  
18240             "x-example":  
18241               {  
18242                 "rt" : ["oic.baseresource"],  
18243                 "if" : ["oic.if.baseline"],  
18244                 "id" : "unique_example_id",  
18245                 "value" : 10.5,  
18246                 "precision" : 0.5,  
18247                 "range" : [0.0,100.0]  
18248               }  
18249             },  
18250           },  
18251           "schema": { "$ref": "#/definitions/base" }  
18252         }  
18253       }  
18254     },  
18255     "post": {  
18256       "description": "sets the read-write resource properties",  
18257       "parameters": [  
18258         {"$ref": "#/parameters/interface-a"},
```

```

18259     {
18260         "name": "body",
18261         "in": "body",
18262         "required": true,
18263         "schema": { "$ref": "#/definitions/base" },
18264         "x-example":
18265             {
18266                 "value": 20.5
18267             }
18268     }
18269 ],
18270 "responses": {
18271     "200": {
18272         "description": "",
18273         "x-example":
18274             {
18275                 "value": 20.5
18276             }
18277     },
18278     "schema": { "$ref": "#/definitions/base" }
18279 }
18280 }
18281 }
18282 }
18283 },
18284 "parameters": {
18285     "interface-a" : {
18286         "in" : "query",
18287         "name" : "if",
18288         "type" : "string",
18289         "enum" : ["oic.if.a"]
18290     },
18291     "interface-baseline" : {
18292         "in" : "query",
18293         "name" : "if",
18294         "type" : "string",
18295         "enum" : ["oic.if.baseline"]
18296     }
18297 },
18298 "definitions": {
18299     "base" :
18300     {
18301         "properties": {
18302             "id": {
18303                 "description": "Instance ID of this specific resource",
18304                 "maxLength": 64,
18305                 "readOnly": true,
18306                 "type": "string"
18307             },
18308             "if": {
18309                 "description": "The interface set supported by this resource",
18310                 "items": {
18311                     "enum": [
18312                         "oic.if.baseline",
18313                         "oic.if.ll",
18314                         "oic.if.b",
18315                         "oic.if.lb",
18316                         "oic.if.rw",
18317                         "oic.if.r",
18318                         "oic.if.a",
18319                         "oic.if.s"
18320                     ],
18321                     "type": "string"
18322                 },
18323                 "minItems": 1,
18324                 "readOnly": true,
18325                 "type": "array"
18326             },
18327             "n": {
18328                 "description": "Friendly name of the resource",
18329                 "maxLength": 64,

```

```

18330         "readOnly": true,
18331         "type": "string"
18332     },
18333     "precision": {
18334         "description": "Accuracy granularity of the exposed value",
18335         "readOnly": true,
18336         "type": "number"
18337     },
18338     "range": {
18339         "description": "The valid range for the value Property",
18340         "items": {
18341             "anyOf": [
18342                 {
18343                     "type": "number"
18344                 },
18345                 {
18346                     "type": "integer"
18347                 }
18348             ]
18349         },
18350         "maxItems": 2,
18351         "minItems": 2,
18352         "readOnly": true,
18353         "type": "array"
18354     },
18355     "rt": {
18356         "description": "Resource Type",
18357         "items": {
18358             "maxLength": 64,
18359             "type": "string"
18360         },
18361         "minItems": 1,
18362         "readOnly": true,
18363         "type": "array"
18364     },
18365     "step": {
18366         "anyOf": [
18367             {
18368                 "type": "integer"
18369             },
18370             {
18371                 "type": "number"
18372             }
18373         ],
18374         "description": "Step value across the defined range",
18375         "readOnly": true
18376     },
18377     "value": {
18378         "anyOf": [
18379             {
18380                 "type": "array"
18381             },
18382             {
18383                 "type": "string"
18384             },
18385             {
18386                 "type": "boolean"
18387             },
18388             {
18389                 "type": "integer"
18390             },
18391             {
18392                 "type": "number"
18393             },
18394             {
18395                 "type": "object"
18396             }
18397         ],
18398         "description": "The value sensed or actuated by this Resource"
18399     }
18400 },

```

```

18401         "type": "object"
18402     }
18403 }
18404 }
18405 }
18406

```

18407 B.12.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property

18408 B.12.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BaseResourceSchemaResURI		get	post		

18409 B.13 Battery

18410 B.13.1 Introduction

18411 This resource describes the attributes associated with a battery. The charge is an integer showing
 18412 the current battery charge level as a percentage in the range 0 (fully discharged) to 100 (fully
 18413 charged). The capacity represents the total capacity of battery in Amp Hours (Ah). The charging
 18414 status and discharging status are represented by boolean values set to "True" indicating enabled
 18415 and "False" indicating disabled. Low battery status is represented by a boolean value set to "True"
 18416 indicating low charge level and "False" indicating otherwise, based upon the battery threshold
 18417 represented as a percentage.
 18418 Retrieves the state of the battery.
 18419

18420 B.13.2 Example URI

18421 /BatteryResURI

18422 B.13.3 Resource Type

18423 The resource type (rt) is defined as: ['oic.r.energy.battery'].

18424 B.13.4 Swagger2.0 Definition

```
18425 {
18426   "swagger": "2.0",
18427   "info": {
18428     "title": "Battery",
18429     "version": "v1.2.0-20170814",
18430     "license": {
18431       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
18432       "x-description": "Redistribution and use in source and binary forms, with or without
18433 modification, are permitted provided that the following conditions are met:\n      1.
18434 Redistributions of source code must retain the above copyright notice, this list of conditions and
18435 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
18436 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
18437 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
18438 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
18439 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
18440 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
18441 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
18442 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
18443 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
18444 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
18445 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
18446 OF SUCH DAMAGE.\n"
18447     }
18448   },
18449   "schemes": ["http"],
18450   "consumes": ["application/json"],
18451   "produces": ["application/json"],
18452   "paths": {
18453     "/BatteryResURI" : {
18454       "get": {
18455         "description": "This resource describes the attributes associated with a battery. The
18456 charge is an integer showing the current battery charge level as a percentage in the range 0 (fully
18457 discharged) to 100 (fully charged). The capacity represents the total capacity of battery in Amp
18458 Hours (Ah). The charging status and discharging status are represented by boolean values set to
18459 \"True\" indicating enabled and \"False\" indicating disabled. Low battery status is represented by
18460 a boolean value set to \"True\" indicating low charge level and \"False\" indicating otherwise,
18461 based upon the battery threshold represented as a percentage.\nRetrieves the state of the
18462 battery.\n",
18463         "parameters": [
18464           { "$ref": "#/parameters/interface" }
18465         ],
18466         "responses": {
18467           "200": {
18468             "description": "",
18469             "x-example":
18470               {
18471                 "rt": ["oic.r.energy.battery"],
18472                 "id": "unique_example_id",
18473                 "charge": 50,
18474                 "capacity": 3000,
18475                 "charging": true,
18476                 "discharging": false,
18477                 "lowbattery": false,
18478                 "batterythreshold": 20
18479               }
18480           },
18481           "schema": { "$ref": "#/definitions/Battery" }
18482         }
18483       }
18484     },
18485     "post": {
18486       "description": "Sets current battery values\n",
18487       "parameters": [
18488         { "$ref": "#/parameters/interface" },
18489         {
18490           "name": "body",
18491           "in": "body",
18492           "required": true,
18493           "schema": { "$ref": "#/definitions/BatteryUpdate" }
18494         }
18495       ]
18496     }
18497   }
18498 }
```

```

18494         "x-example":
18495             {
18496                 "id":          "unique_example_id",
18497                 "batterythreshold": 20
18498             }
18499         },
18500     ],
18501     "responses": {
18502         "200": {
18503             "description": "",
18504             "x-example":
18505                 {
18506                     "id":          "unique_example_id",
18507                     "batterythreshold": 20
18508                 }
18509             ,
18510             "schema": { "$ref": "#/definitions/BatteryUpdate" }
18511         }
18512     }
18513 },
18514 },
18515 },
18516 "parameters": {
18517     "interface": {
18518         "in": "query",
18519         "name": "if",
18520         "type": "string",
18521         "enum": ["oic.if.rw", "oic.if.baseline"]
18522     }
18523 },
18524 "definitions": {
18525     "Battery": {
18526         {
18527         "properties": {
18528             "batterythreshold": {
18529                 "description": "The threshold percentage for the low battery warning.",
18530                 "maximum": 100,
18531                 "minimum": 0,
18532                 "type": "integer"
18533             },
18534             "capacity": {
18535                 "description": "The total capacity in Amp-hours (Ah).",
18536                 "readOnly": true,
18537                 "type": "number"
18538             },
18539             "charge": {
18540                 "description": "The current charge percentage.",
18541                 "maximum": 100,
18542                 "minimum": 0,
18543                 "readOnly": true,
18544                 "type": "integer"
18545             },
18546             "charging": {
18547                 "description": "The status of charging.",
18548                 "readOnly": true,
18549                 "type": "boolean"
18550             },
18551             "discharging": {
18552                 "description": "The status of discharging.",
18553                 "readOnly": true,
18554                 "type": "boolean"
18555             },
18556             "id": {
18557                 "description": "Instance ID of this specific resource",
18558                 "maxLength": 64,
18559                 "readOnly": true,
18560                 "type": "string"
18561             },
18562             "if": {
18563                 "description": "The interface set supported by this resource",
18564                 "items": {

```

```

18565         "enum": [
18566             "oic.if.baseline",
18567             "oic.if.ll",
18568             "oic.if.b",
18569             "oic.if.lb",
18570             "oic.if.rw",
18571             "oic.if.r",
18572             "oic.if.a",
18573             "oic.if.s"
18574         ],
18575         "type": "string"
18576     },
18577     "minItems": 1,
18578     "readOnly": true,
18579     "type": "array"
18580 },
18581 "lowbattery": {
18582     "description": "The status of the low battery warning based upon the defined
18583 threshold.",
18584     "readOnly": true,
18585     "type": "boolean"
18586 },
18587 "n": {
18588     "description": "Friendly name of the resource",
18589     "maxLength": 64,
18590     "readOnly": true,
18591     "type": "string"
18592 },
18593 "precision": {
18594     "description": "Accuracy granularity of the exposed value",
18595     "readOnly": true,
18596     "type": "number"
18597 },
18598 "range": {
18599     "description": "The valid range for the value Property",
18600     "items": {
18601         "anyOf": [
18602             {
18603                 "type": "number"
18604             },
18605             {
18606                 "type": "integer"
18607             }
18608         ]
18609     },
18610     "maxItems": 2,
18611     "minItems": 2,
18612     "readOnly": true,
18613     "type": "array"
18614 },
18615 "rt": {
18616     "description": "Resource Type",
18617     "items": {
18618         "maxLength": 64,
18619         "type": "string"
18620     },
18621     "minItems": 1,
18622     "readOnly": true,
18623     "type": "array"
18624 },
18625 "step": {
18626     "anyOf": [
18627         {
18628             "type": "integer"
18629         },
18630         {
18631             "type": "number"
18632         }
18633     ],
18634     "description": "Step value across the defined range",
18635     "readOnly": true

```

```

18636     },
18637     "value": {
18638       "anyOf": [
18639         {
18640           "type": "array"
18641         },
18642         {
18643           "type": "string"
18644         },
18645         {
18646           "type": "boolean"
18647         },
18648         {
18649           "type": "integer"
18650         },
18651         {
18652           "type": "number"
18653         },
18654         {
18655           "type": "object"
18656         }
18657       ],
18658       "description": "The value sensed or actuated by this Resource"
18659     }
18660   },
18661   "required": [
18662     "charge"
18663   ],
18664   "type": "object"
18665 }
18666
18667 /
18668 "BatteryUpdate" :
18669 {
18670   "properties": {
18671     "batterythreshold": {
18672       "description": "The threshold percentage for the low battery warning.",
18673       "maximum": 100,
18674       "minimum": 0,
18675       "type": "integer"
18676     },
18677     "id": {
18678       "description": "Instance ID of this specific resource",
18679       "maxLength": 64,
18680       "readOnly": true,
18681       "type": "string"
18682     },
18683     "if": {
18684       "description": "The interface set supported by this resource",
18685       "items": {
18686         "enum": [
18687           "oic.if.baseline",
18688           "oic.if.ll",
18689           "oic.if.b",
18690           "oic.if.lb",
18691           "oic.if.rw",
18692           "oic.if.r",
18693           "oic.if.a",
18694           "oic.if.s"
18695         ],
18696         "type": "string"
18697       },
18698       "minItems": 1,
18699       "readOnly": true,
18700       "type": "array"
18701     },
18702     "n": {
18703       "description": "Friendly name of the resource",
18704       "maxLength": 64,
18705       "readOnly": true,
18706       "type": "string"

```



```

18707     },
18708     "precision": {
18709         "description": "Accuracy granularity of the exposed value",
18710         "readOnly": true,
18711         "type": "number"
18712     },
18713     "range": {
18714         "description": "The valid range for the value Property",
18715         "items": {
18716             "anyOf": [
18717                 {
18718                     "type": "number"
18719                 },
18720                 {
18721                     "type": "integer"
18722                 }
18723             ]
18724         },
18725         "maxItems": 2,
18726         "minItems": 2,
18727         "readOnly": true,
18728         "type": "array"
18729     },
18730     "rt": {
18731         "description": "Resource Type",
18732         "items": {
18733             "maxLength": 64,
18734             "type": "string"
18735         },
18736         "minItems": 1,
18737         "readOnly": true,
18738         "type": "array"
18739     },
18740     "step": {
18741         "anyOf": [
18742             {
18743                 "type": "integer"
18744             },
18745             {
18746                 "type": "number"
18747             }
18748         ],
18749         "description": "Step value across the defined range",
18750         "readOnly": true
18751     },
18752     "value": {
18753         "anyOf": [
18754             {
18755                 "type": "array"
18756             },
18757             {
18758                 "type": "string"
18759             },
18760             {
18761                 "type": "boolean"
18762             },
18763             {
18764                 "type": "integer"
18765             },
18766             {
18767                 "type": "number"
18768             },
18769             {
18770                 "type": "object"
18771             }
18772         ],
18773         "description": "The value sensed or actuated by this Resource"
18774     }
18775 },
18776 "required": [
18777     "batterythreshold"

```

```

18778     ],
18779     "type": "object"
18780   }
18781 }
18782 }
18783 }
18784 }

```

18785 **B.13.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
lowbattery	boolean		Read Only	The status of the low battery warning based upon the defined threshold.
discharging	boolean		Read Only	The status of discharging.
value	multiple types: see schema			The value sensed or actuated by this Resource
batterythreshold	integer			The threshold percentage for the low battery warning.
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
charge	integer	yes	Read Only	The current charge percentage.
capacity	number		Read Only	The total capacity in Amp-hours (Ah).
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
charging	boolean		Read Only	The status of charging.
value	multiple types: see schema			The value sensed or actuated by this Resource

step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
batterythreshold	integer	yes		The threshold percentage for the low battery warning.
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

18786 **B.13.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BatteryResURI		get	post		

18787 **B.14 Battery Material**

18788 **B.14.1 Introduction**

18789 This resource describes the battery material represented as an enumerated set of strings.
 18790 Retrieves the battery material.
 18791

18792 **B.14.2 Example URI**

18793 /BatteryMaterialResURI

18794 **B.14.3 Resource Type**

18795 The resource type (rt) is defined as: ['oic.r.batterymaterial'].

18796 **B.14.4 Swagger2.0 Definition**

```

18797 {
18798   "swagger": "2.0",
18799   "info": {
18800     "title": "Battery Material",
18801     "version": "v1.1.0-20170815",
18802     "license": {
18803       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
18804       "x-description": "Redistribution and use in source and binary forms, with or without
18805       modification, are permitted provided that the following conditions are met:\n      1.
18806       Redistributions of source code must retain the above copyright notice, this list of conditions and
18807       the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
18808       copyright notice, this list of conditions and the following disclaimer in the documentation and/or
18809       other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
18810       Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
18811       LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
18812       WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
18813       Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,

```

```

18814 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
18815 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
18816 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
18817 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
18818 OF SUCH DAMAGE.\n"
18819 }
18820 },
18821 "schemes": ["http"],
18822 "consumes": ["application/json"],
18823 "produces": ["application/json"],
18824 "paths": {
18825   "/BatteryMaterialResURI" : {
18826     "get": {
18827       "description": "This resource describes the battery material represented as an enumerated
18828 set of strings.\nRetrieves the battery material.\n",
18829       "parameters": [
18830         {"$ref": "#/parameters/interface"}
18831       ],
18832       "responses": {
18833         "200": {
18834           "description": "",
18835           "x-example":
18836             {
18837               "rt": ["oic.r.batterymaterial"],
18838               "id": "unique_example_id",
18839               "material": "Alkaline"
18840             }
18841           ,
18842           "schema": {"$ref": "#/definitions/BatteryMaterial" }
18843         }
18844       }
18845     }
18846   }
18847 },
18848 "parameters": {
18849   "interface" : {
18850     "in" : "query",
18851     "name" : "if",
18852     "type" : "string",
18853     "enum" : ["oic.if.s", "oic.if.baseline"]
18854   }
18855 },
18856 "definitions": {
18857   "BatteryMaterial" :
18858     {
18859     "properties": {
18860       "id": {
18861         "description": "Instance ID of this specific resource",
18862         "maxLength": 64,
18863         "readOnly": true,
18864         "type": "string"
18865       },
18866       "if": {
18867         "description": "The interface set supported by this resource",
18868         "items": {
18869           "enum": [
18870             "oic.if.baseline",
18871             "oic.if.ll",
18872             "oic.if.b",
18873             "oic.if.lb",
18874             "oic.if.rw",
18875             "oic.if.r",
18876             "oic.if.a",
18877             "oic.if.s"
18878           ],
18879           "type": "string"
18880         },
18881         "minItems": 1,
18882         "readOnly": true,
18883         "type": "array"
18884       }
18885     }
18886   }
18887 }

```

```

18885     "material": {
18886         "description": "Battery construction material (type).",
18887         "enum": [
18888             "Alkaline",
18889             "Aluminium Air",
18890             "Aluminium Ion",
18891             "Atomic Betavoltaics",
18892             "Atomic Optoelectric Nuclear",
18893             "Atomic Nuclear",
18894             "Bunsen Cell",
18895             "Chromic Acid Cell",
18896             "Poggendorff Cell",
18897             "Clark Cell",
18898             "Daniell Cell",
18899             "Dry Cell",
18900             "Earth",
18901             "Flow",
18902             "Flow Vanadium Redox",
18903             "Flow Zinc Bromine",
18904             "Flow Zinc Cerium",
18905             "Frog",
18906             "Fuel",
18907             "Galvanic Cell",
18908             "Glass",
18909             "Grove Cell",
18910             "Lead Acid",
18911             "Lead Acid Deep Cycle",
18912             "Lead Acid VRLA",
18913             "Lead Acid AGM",
18914             "Lead Acid Gel",
18915             "Leclanche Cell",
18916             "Lemon Potato",
18917             "Lithium",
18918             "Lithium Air",
18919             "Lithium Ion",
18920             "Lithium Ion Cobalt Oxide (ICR)",
18921             "Lithium Ion Manganese Oxide (IMR)",
18922             "Lithium Ion Polymer",
18923             "Lithium Iron Phosphate",
18924             "Lithium Sulfur",
18925             "Lithium Titanate",
18926             "Lithium Ion Thin Film",
18927             "Magnesium",
18928             "Magnesium Ion",
18929             "Mercury",
18930             "Molten Salt",
18931             "Nickel Cadmium",
18932             "Nickel Cadmium Vented Cell",
18933             "Nickel Hydrogen",
18934             "Nickel Iron ",
18935             "Nickel Metal Hydride",
18936             "Nickel Metal Hydride Low Self-Discharge",
18937             "Nickel Oxyhydroxide",
18938             "Nickel Oxyride",
18939             "Nickel Zinc",
18940             "Organic Radical",
18941             "Paper",
18942             "Polymer Based",
18943             "Polysulfide Bromide",
18944             "Potassium Ion",
18945             "Pulvermachers Chain",
18946             "Silicon Air",
18947             "Silver Calcium",
18948             "Silver Oxide",
18949             "Silver Zinc",
18950             "Sodium Ion",
18951             "Sodium Sulfur",
18952             "Solid State",
18953             "Sugar",
18954             "Super Iron",
18955             "UltraBattery",

```

```

18956         "Voltaic Pile",
18957         "Voltaic Pile Penny",
18958         "Voltaic Pile Trough",
18959         "Water Activated",
18960         "Weston Cell",
18961         "Zinc Air",
18962         "Zinc Carbon",
18963         "Zinc Chloride",
18964         "Zinc Ion",
18965         "Unknown"
18966     ],
18967     "readOnly": true
18968 },
18969 "n": {
18970     "description": "Friendly name of the resource",
18971     "maxLength": 64,
18972     "readOnly": true,
18973     "type": "string"
18974 },
18975 "precision": {
18976     "description": "Accuracy granularity of the exposed value",
18977     "readOnly": true,
18978     "type": "number"
18979 },
18980 "range": {
18981     "description": "The valid range for the value Property",
18982     "items": {
18983         "anyOf": [
18984             {
18985                 "type": "number"
18986             },
18987             {
18988                 "type": "integer"
18989             }
18990         ]
18991     },
18992     "maxItems": 2,
18993     "minItems": 2,
18994     "readOnly": true,
18995     "type": "array"
18996 },
18997 "rt": {
18998     "description": "Resource Type",
18999     "items": {
19000         "maxLength": 64,
19001         "type": "string"
19002     },
19003     "minItems": 1,
19004     "readOnly": true,
19005     "type": "array"
19006 },
19007 "step": {
19008     "anyOf": [
19009         {
19010             "type": "integer"
19011         },
19012         {
19013             "type": "number"
19014         }
19015     ],
19016     "description": "Step value across the defined range",
19017     "readOnly": true
19018 },
19019 "value": {
19020     "anyOf": [
19021         {
19022             "type": "array"
19023         },
19024         {
19025             "type": "string"
19026         }

```

```

19027     {
19028         "type": "boolean"
19029     },
19030     {
19031         "type": "integer"
19032     },
19033     {
19034         "type": "number"
19035     },
19036     {
19037         "type": "object"
19038     }
19039 ],
19040 "description": "The value sensed or actuated by this Resource"
19041 },
19042 },
19043 "required": [
19044     "material"
19045 ],
19046 "type": "object"
19047 }
19048 }
19049 }
19050 }
19051 }

```

19052 **B.14.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
material	multiple types: see schema	yes	Read Only	Battery construction material (type).
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value

19053 **B.14.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BatteryMaterialResURI		get			

19054 **B.15 Binary Switch**

19055 **B.15.1 Introduction**

19056 This resource describes a binary switch (on/off).
19057 The value is a boolean.
19058 A value of 'true' means that the switch is on.
19059 A value of 'false' means that the switch is off.
19060

19061 **B.15.2 Example URI**

19062 /BinarySwitchResURI

19063 **B.15.3 Resource Type**

19064 The resource type (rt) is defined as: ['oic.r.switch.binary'].

19065 **B.15.4 Swagger2.0 Definition**

```
19066 {  
19067   "swagger": "2.0",  
19068   "info": {  
19069     "title": "Binary Switch",  
19070     "version": "v1.1.0-20160519",  
19071     "license": {  
19072       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
19073       "x-description": "Redistribution and use in source and binary forms, with or without  
19074 modification, are permitted provided that the following conditions are met:\n      1.  
19075 Redistributions of source code must retain the above copyright notice, this list of conditions and  
19076 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
19077 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
19078 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
19079 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
19080 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
19081 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
19082 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
19083 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
19084 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
19085 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
19086 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
19087 OF SUCH DAMAGE.\n\n    }  
19088   },  
19089   "schemes": ["http"],  
19090   "consumes": ["application/json"],  
19091   "produces": ["application/json"],  
19092   "paths": {  
19093     "/BinarySwitchResURI" : {  
19094       "get": {  
19095         "description": "This resource describes a binary switch (on/off).\n\nThe value is a  
19096 boolean.\n\nA value of 'true' means that the switch is on.\n\nA value of 'false' means that the switch  
19097 is off.\n\n",  
19098         "parameters": [  
19099           { "$ref": "#/parameters/interface" }  
19100         ],  
19101         "responses": {  
19102           "200": {  
19103             "description": "",  
19104             "x-example":  
19105               {  
19106                 "rt": ["oic.r.switch.binary"],  
19107                 "id": "unique_example_id",  
19108                 "value": false  
19109               }  
19110           }  
19111         },  
19112         "schema": { "$ref": "#/definitions/BinarySwitch" }  
19113       }  
19114     }  
19115   },  
19116   "post": {
```



```

19117     "description": "",
19118     "parameters": [
19119       { "$ref": "#/parameters/interface" },
19120       {
19121         "name": "body",
19122         "in": "body",
19123         "required": true,
19124         "schema": { "$ref": "#/definitions/BinarySwitch" },
19125         "x-example":
19126           {
19127             "id": "unique_example_id",
19128             "value": true
19129           }
19130       }
19131     ],
19132     "responses": {
19133       "200": {
19134         "description": "",
19135         "x-example":
19136           {
19137             "id": "unique_example_id",
19138             "value": true
19139           }
19140       },
19141       "schema": { "$ref": "#/definitions/BinarySwitch" }
19142     }
19143   }
19144 }
19145 },
19146 },
19147 "parameters": {
19148   "interface": {
19149     "in": "query",
19150     "name": "if",
19151     "type": "string",
19152     "enum": ["oic.if.a", "oic.if.baseline"]
19153   }
19154 },
19155 "definitions": {
19156   "BinarySwitch":
19157     {
19158     "properties": {
19159       "id": {
19160         "description": "Instance ID of this specific resource",
19161         "maxLength": 64,
19162         "readOnly": true,
19163         "type": "string"
19164       },
19165       "if": {
19166         "description": "The interface set supported by this resource",
19167         "items": {
19168           "enum": [
19169             "oic.if.baseline",
19170             "oic.if.ll",
19171             "oic.if.b",
19172             "oic.if.lb",
19173             "oic.if.rw",
19174             "oic.if.r",
19175             "oic.if.a",
19176             "oic.if.s"
19177           ],
19178           "type": "string"
19179         },
19180         "minItems": 1,
19181         "readOnly": true,
19182         "type": "array"
19183       },
19184       "n": {
19185         "description": "Friendly name of the resource",
19186         "maxLength": 64,
19187         "readOnly": true,

```

```

19188         "type": "string"
19189     },
19190     "precision": {
19191         "description": "Accuracy granularity of the exposed value",
19192         "readOnly": true,
19193         "type": "number"
19194     },
19195     "range": {
19196         "description": "The valid range for the value Property",
19197         "items": {
19198             "anyOf": [
19199                 {
19200                     "type": "number"
19201                 },
19202                 {
19203                     "type": "integer"
19204                 }
19205             ]
19206         },
19207         "maxItems": 2,
19208         "minItems": 2,
19209         "readOnly": true,
19210         "type": "array"
19211     },
19212     "rt": {
19213         "description": "Resource Type",
19214         "items": {
19215             "maxLength": 64,
19216             "type": "string"
19217         },
19218         "minItems": 1,
19219         "readOnly": true,
19220         "type": "array"
19221     },
19222     "step": {
19223         "anyOf": [
19224             {
19225                 "type": "integer"
19226             },
19227             {
19228                 "type": "number"
19229             }
19230         ],
19231         "description": "Step value across the defined range",
19232         "readOnly": true
19233     },
19234     "value": {
19235         "description": "Status of the switch",
19236         "type": "boolean"
19237     }
19238 },
19239 "required": [
19240     "value"
19241 ],
19242 "type": "object"
19243 }
19244 }
19245 }
19246 }
19247

```

19248 **B.15.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
value	boolean	yes		Status of the switch

n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type

19249 **B.15.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BinarySwitchResURI		get	post		

19250 **B.16 Brewing**

19251 **B.16.1 Introduction**

19252 This resource describes the attributes associated with brewing. This resource is used for
 19253 configuration only. Operation is handled independently of this resource. The amount requested is
 19254 in ml. The strength of a brewed drink is an integer, the range of which may be enforced by the
 19255 presence of a strengthrange Property.
 19256 Retrieves the state of brewing.
 19257

19258 **B.16.2 Example URI**

19259 /BrewingResURI

19260 **B.16.3 Resource Type**

19261 The resource type (rt) is defined as: ['oic.r.brewing'].

19262 **B.16.4 Swagger2.0 Definition**

```

19263 {
19264   "swagger": "2.0",
19265   "info": {
19266     "title": "Brewing",
19267     "version": "v1.1.0-20170815",
19268     "license": {
19269       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
19270       "x-description": "Redistribution and use in source and binary forms, with or without
19271 modification, are permitted provided that the following conditions are met:\n      1.
19272 Redistributions of source code must retain the above copyright notice, this list of conditions and
19273 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
19274 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
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19282 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
19283 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
19284 OF SUCH DAMAGE.\n"
19285   }
  
```

```

19286 },
19287 "schemes": ["http"],
19288 "consumes": ["application/json"],
19289 "produces": ["application/json"],
19290 "paths": {
19291   "/BrewingResURI" : {
19292     "get": {
19293       "description": "This resource describes the attributes associated with brewing. This
19294 resource is used for configuration only. Operation is handled independently of this resource. The
19295 amount requested is in ml. The strength of a brewed drink is an integer, the range of which may be
19296 enforced by the presence of a strengthrange Property.\nRetrieves the state of brewing.\n",
19297       "parameters": [
19298         {"$ref": "#/parameters/interface"}
19299       ],
19300       "responses": {
19301         "200": {
19302           "description": "",
19303           "x-example":
19304             {
19305               "rt": ["oic.r.brewing"],
19306               "id": "unique_example_id",
19307               "amountrequested": 120,
19308               "strength": 8,
19309               "strengthrange": [1,10]
19310             }
19311           ,
19312           "schema": { "$ref": "#/definitions/Brewing" }
19313         }
19314       }
19315     },
19316     "post": {
19317       "description": "Sets the brewing values\n",
19318       "parameters": [
19319         {"$ref": "#/parameters/interface"},
19320         {
19321           "name": "body",
19322           "in": "body",
19323           "required": true,
19324           "schema": { "$ref": "#/definitions/Brewing" },
19325           "x-example":
19326             {
19327               "id": "unique_example_id",
19328               "amountrequested": 120,
19329               "strength": 8
19330             }
19331         }
19332       ],
19333       "responses": {
19334         "200": {
19335           "description": "",
19336           "x-example":
19337             {
19338               "id": "unique_example_id",
19339               "amountrequested": 120,
19340               "strength": 8
19341             }
19342         }
19343       }
19344     }
19345   }
19346 },
19347 "parameters": {
19348   "interface" : {
19349     "in" : "query",
19350     "name" : "if",
19351     "type" : "string",
19352     "enum" : ["oic.if.rw", "oic.if.baseline"]
19353   }
19354 },
19355 "definitions": {
19356   "Brewing" :

```

```

19357     {
19358     "properties": {
19359         "amountrequested": {
19360             "description": "The amount requested in ml.",
19361             "type": "integer"
19362         },
19363         "id": {
19364             "description": "Instance ID of this specific resource",
19365             "maxLength": 64,
19366             "readOnly": true,
19367             "type": "string"
19368         },
19369         "if": {
19370             "description": "The interface set supported by this resource",
19371             "items": {
19372                 "enum": [
19373                     "oic.if.baseline",
19374                     "oic.if.ll",
19375                     "oic.if.b",
19376                     "oic.if.lb",
19377                     "oic.if.rw",
19378                     "oic.if.r",
19379                     "oic.if.a",
19380                     "oic.if.s"
19381                 ],
19382                 "type": "string"
19383             },
19384             "minItems": 1,
19385             "readOnly": true,
19386             "type": "array"
19387         },
19388         "n": {
19389             "description": "Friendly name of the resource",
19390             "maxLength": 64,
19391             "readOnly": true,
19392             "type": "string"
19393         },
19394         "precision": {
19395             "description": "Accuracy granularity of the exposed value",
19396             "readOnly": true,
19397             "type": "number"
19398         },
19399         "range": {
19400             "description": "The valid range for the value Property",
19401             "items": {
19402                 "anyOf": [
19403                     {
19404                         "type": "number"
19405                     },
19406                     {
19407                         "type": "integer"
19408                     }
19409                 ]
19410             },
19411             "maxItems": 2,
19412             "minItems": 2,
19413             "readOnly": true,
19414             "type": "array"
19415         },
19416         "rt": {
19417             "description": "Resource Type",
19418             "items": {
19419                 "maxLength": 64,
19420                 "type": "string"
19421             },
19422             "minItems": 1,
19423             "readOnly": true,
19424             "type": "array"
19425         },
19426         "step": {
19427             "anyOf": [

```

```

19428         {
19429             "type": "integer"
19430         },
19431         {
19432             "type": "number"
19433         }
19434     ],
19435     "description": "Step value across the defined range",
19436     "readOnly": true
19437 },
19438 "strength": {
19439     "description": "The strength of a brewed drink.",
19440     "type": "integer"
19441 },
19442 "strengthrange": {
19443     "items": {
19444         "type": "integer"
19445     },
19446     "maxItems": 2,
19447     "minItems": 2,
19448     "readOnly": true,
19449     "type": "array"
19450 },
19451 "value": {
19452     "anyOf": [
19453         {
19454             "type": "array"
19455         },
19456         {
19457             "type": "string"
19458         },
19459         {
19460             "type": "boolean"
19461         },
19462         {
19463             "type": "integer"
19464         },
19465         {
19466             "type": "number"
19467         },
19468         {
19469             "type": "object"
19470         }
19471     ],
19472     "description": "The value sensed or actuated by this Resource"
19473 },
19474 },
19475 "required": [
19476     "amountrequested"
19477 ],
19478 "type": "object"
19479 }
19480 }
19481 }
19482 }
19483

```

B.16.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
amountrequested	integer	yes		The amount requested in ml.
value	multiple types: see schema			The value sensed or

				actuated by this Resource
strength	integer			The strength of a brewed drink.
strengthrange	array: see schema		Read Only	
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value

19485 **B.16.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BrewingResURI		get	post		

19486 **B.17 Brightness**

19487 **B.17.1 Introduction**

19488 This resource describes the brightness of a light or lamp.
 19489 brightness is an integer showing the current brightness level as a quantized representation in the
 19490 range 0-100.

19491 A brightness of 0 is the minimum for the resource.
 19492 A brightness of 100 is the maximum for the resource.

19493 Retrieves the current brightness level.
 19494

19495 **B.17.2 Example URI**

19496 /BrightnessResURI

19497 **B.17.3 Resource Type**

19498 The resource type (rt) is defined as: ['oic.r.light.brightness'].

19499 **B.17.4 Swagger2.0 Definition**

```

19500 {
19501   "swagger": "2.0",
19502   "info": {
19503     "title": "Brightness",
19504     "version": "v1.1.0-20160519",
19505     "license": {
19506       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
19507       "x-description": "Redistribution and use in source and binary forms, with or without
19508 modification, are permitted provided that the following conditions are met:\n
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19510 the following disclaimer.\n
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19519 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
19520 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
19521 OF SUCH DAMAGE.\n"
19522     }
19523 },
19524 "schemes": ["http"],
19525 "consumes": ["application/json"],
19526 "produces": ["application/json"],
19527 "paths": {
19528     "/BrightnessResURI" : {
19529         "get": {
19530             "description": "This resource describes the brightness of a light or lamp.\nbrightness is
19531 an integer showing the current brightness level as a quantized representation in the range 0-
19532 100.\nA brightness of 0 is the minimum for the resource.\nA brightness of 100 is the maximum for
19533 the resource.\nRetrieves the current brightness level.\n",
19534             "parameters": [
19535                 {"$ref": "#/parameters/interface"}
19536             ],
19537             "responses": {
19538                 "200": {
19539                     "description": "",
19540                     "x-example":
19541                         {
19542                             "rt": ["oic.r.light.brightness"],
19543                             "id": "unique_example_id",
19544                             "brightness": 50
19545                         }
19546                     ,
19547                     "schema": {"$ref": "#/definitions/Brightness" }
19548                 }
19549             }
19550         },
19551         "post": {
19552             "description": "Sets the desired brightness level.\n",
19553             "parameters": [
19554                 {"$ref": "#/parameters/interface"},
19555                 {
19556                     "name": "body",
19557                     "in": "body",
19558                     "required": true,
19559                     "schema": {"$ref": "#/definitions/Brightness" },
19560                     "x-example":
19561                         {
19562                             "id": "unique_example_id",
19563                             "brightness": 10
19564                         }
19565                 }
19566             ],
19567             "responses": {
19568                 "200": {
19569                     "description": "Indicates that the brightness was changed.\nThe new brightness level
19570 is provided in the response.\n",
19571                     "x-example":
19572                         {
19573                             "id": "unique_example_id",
19574                             "brightness": 10
19575                         }
19576                     ,
19577                     "schema": {"$ref": "#/definitions/Brightness" }
19578                 }
19579             }
19580         }
19581     }
19582 },
19583 "parameters": {
19584     "interface" : {
19585         "in" : "query",
19586         "name" : "if",

```



```

19587     "type" : "string",
19588     "enum" : ["oic.if.a", "oic.if.baseline"]
19589   },
19590 },
19591 "definitions": {
19592   "Brightness" :
19593     {
19594       "properties": {
19595         "brightness": {
19596           "description": "Quantized representation in the range 0-100 of the current sensed or
19597 set value for Brightness",
19598           "maximum": 100,
19599           "minimum": 0,
19600           "type": "integer"
19601         },
19602         "id": {
19603           "description": "Instance ID of this specific resource",
19604           "maxLength": 64,
19605           "readOnly": true,
19606           "type": "string"
19607         },
19608         "if": {
19609           "description": "The interface set supported by this resource",
19610           "items": {
19611             "enum": [
19612               "oic.if.baseline",
19613               "oic.if.ll",
19614               "oic.if.b",
19615               "oic.if.lb",
19616               "oic.if.rw",
19617               "oic.if.r",
19618               "oic.if.a",
19619               "oic.if.s"
19620             ],
19621             "type": "string"
19622           },
19623           "minItems": 1,
19624           "readOnly": true,
19625           "type": "array"
19626         },
19627         "n": {
19628           "description": "Friendly name of the resource",
19629           "maxLength": 64,
19630           "readOnly": true,
19631           "type": "string"
19632         },
19633         "precision": {
19634           "description": "Accuracy granularity of the exposed value",
19635           "readOnly": true,
19636           "type": "number"
19637         },
19638         "range": {
19639           "description": "The valid range for the value Property",
19640           "items": {
19641             "anyOf": [
19642               {
19643                 "type": "number"
19644               },
19645               {
19646                 "type": "integer"
19647               }
19648             ]
19649           },
19650           "maxItems": 2,
19651           "minItems": 2,
19652           "readOnly": true,
19653           "type": "array"
19654         },
19655         "rt": {
19656           "description": "Resource Type",
19657           "items": {

```

```

19658         "maxLength": 64,
19659         "type": "string"
19660     },
19661     "minItems": 1,
19662     "readOnly": true,
19663     "type": "array"
19664 },
19665 "step": {
19666     "anyOf": [
19667         {
19668             "type": "integer"
19669         },
19670         {
19671             "type": "number"
19672         }
19673     ],
19674     "description": "Step value across the defined range",
19675     "readOnly": true
19676 },
19677 "value": {
19678     "anyOf": [
19679         {
19680             "type": "array"
19681         },
19682         {
19683             "type": "string"
19684         },
19685         {
19686             "type": "boolean"
19687         },
19688         {
19689             "type": "integer"
19690         },
19691         {
19692             "type": "number"
19693         },
19694         {
19695             "type": "object"
19696         }
19697     ],
19698     "description": "The value sensed or actuated by this Resource"
19699 }
19700 },
19701 "required": [
19702     "brightness"
19703 ],
19704 "type": "object"
19705 }
19706 }
19707 }
19708 }
19709

```

19710 **B.17.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property

brightness	integer	yes		Quantized representation in the range 0-100 of the current sensed or set value for Brightness
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

19711 **B.17.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BrightnessResURI		get	post		

19712 **B.18 Button Switch**

19713 **B.18.1 Introduction**

19714 This resource describes the operation of a button style switch.
 19715 The value is a boolean.
 19716 A value of 'true' means that the button is being pushed/pressed.
 19717 A value of 'false' means that the button is not being pushed/pressed.
 19718

19719 **B.18.2 Example URI**

19720 /ButtonResURI

19721 **B.18.3 Resource Type**

19722 The resource type (rt) is defined as: ['oic.r.button'].

19723 **B.18.4 Swagger2.0 Definition**

```

19724 {
19725   "swagger": "2.0",
19726   "info": {
19727     "title": "Button Switch",
19728     "version": "v1.1.0-20160519",
19729     "license": {
19730       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
19731       "x-description": "Redistribution and use in source and binary forms, with or without
19732 modification, are permitted provided that the following conditions are met:\n      1.
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19734 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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```

```

19744 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
19745 OF SUCH DAMAGE.\n"
19746 }
19747 },
19748 "schemes": ["http"],
19749 "consumes": ["application/json"],
19750 "produces": ["application/json"],
19751 "paths": {
19752   "/ButtonResURI" : {
19753     "get": {
19754       "description": "This resource describes the operation of a button style switch.\nThe value
19755 is a boolean.\nA value of 'true' means that the button is being pushed/pressed.\nA value of 'false'
19756 means that the button is not being pushed/pressed.\n",
19757       "parameters": [
19758         { "$ref": "#/parameters/interface" }
19759       ],
19760       "responses": {
19761         "200": {
19762           "description": "",
19763           "x-example":
19764             {
19765               "rt": ["oic.r.button"],
19766               "id": "unique_example_id",
19767               "value": true
19768             }
19769           ,
19770           "schema": { "$ref": "#/definitions/Button" }
19771         }
19772       }
19773     }
19774   },
19775 },
19776 "parameters": {
19777   "interface" : {
19778     "in" : "query",
19779     "name" : "if",
19780     "type" : "string",
19781     "enum" : ["oic.if.s", "oic.if.baseline"]
19782   }
19783 },
19784 "definitions": {
19785   "Button" :
19786     {
19787     "properties": {
19788       "id": {
19789         "description": "Instance ID of this specific resource",
19790         "maxLength": 64,
19791         "readOnly": true,
19792         "type": "string"
19793       },
19794       "if": {
19795         "description": "The interface set supported by this resource",
19796         "items": {
19797           "enum": [
19798             "oic.if.baseline",
19799             "oic.if.ll",
19800             "oic.if.b",
19801             "oic.if.lb",
19802             "oic.if.rw",
19803             "oic.if.r",
19804             "oic.if.a",
19805             "oic.if.s"
19806           ],
19807           "type": "string"
19808         },
19809         "minItems": 1,
19810         "readOnly": true,
19811         "type": "array"
19812       },
19813       "n": {
19814         "description": "Friendly name of the resource",

```

```

19815         "maxLength": 64,
19816         "readOnly": true,
19817         "type": "string"
19818     },
19819     "precision": {
19820         "description": "Accuracy granularity of the exposed value",
19821         "readOnly": true,
19822         "type": "number"
19823     },
19824     "range": {
19825         "description": "The valid range for the value Property",
19826         "items": {
19827             "anyOf": [
19828                 {
19829                     "type": "number"
19830                 },
19831                 {
19832                     "type": "integer"
19833                 }
19834             ]
19835         },
19836         "maxItems": 2,
19837         "minItems": 2,
19838         "readOnly": true,
19839         "type": "array"
19840     },
19841     "rt": {
19842         "description": "Resource Type",
19843         "items": {
19844             "maxLength": 64,
19845             "type": "string"
19846         },
19847         "minItems": 1,
19848         "readOnly": true,
19849         "type": "array"
19850     },
19851     "step": {
19852         "anyOf": [
19853             {
19854                 "type": "integer"
19855             },
19856             {
19857                 "type": "number"
19858             }
19859         ],
19860         "description": "Step value across the defined range",
19861         "readOnly": true
19862     },
19863     "value": {
19864         "description": "Status of the button",
19865         "readOnly": true,
19866         "type": "boolean"
19867     }
19868 },
19869 "required": [
19870     "value"
19871 ]
19872 }
19873 }
19874 }
19875 }
19876

```

19877 B.18.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: schema	see	Read Only	Resource Type

precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	boolean	yes	Read Only	Status of the button
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource

19878 **B.18.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ButtonResURI		get			

19879 **B.19 Carbon Dioxide Sensor**

19880 **B.19.1 Introduction**

19881 This resource describes whether carbon dioxide has been sensed or not.
 19882 The value is a boolean.
 19883 A value of 'true' means that carbon dioxide has been detected.
 19884 A value of 'false' means that carbon dioxide has not been detected.
 19885

19886 **B.19.2 Example URI**

19887 /CarbonDioxideResURI

19888 **B.19.3 Resource Type**

19889 The resource type (rt) is defined as: ['oic.r.sensor.carbondioxide'].

19890 **B.19.4 Swagger2.0 Definition**

```

19891 {
19892   "swagger": "2.0",
19893   "info": {
19894     "title": "Carbon Dioxide Sensor",
19895     "version": "v1.1.0-20160519",
19896     "license": {
19897       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
19898       "x-description": "Redistribution and use in source and binary forms, with or without
19899 modification, are permitted provided that the following conditions are met:\n
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```

19911 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
19912 OF SUCH DAMAGE.\n"
19913 }
19914 },
19915 "schemes": ["http"],
19916 "consumes": ["application/json"],
19917 "produces": ["application/json"],
19918 "paths": {
19919   "/CarbonDioxideResURI" : {
19920     "get": {
19921       "description": "This resource describes whether carbon dioxide has been sensed or not.\nThe
19922 value is a boolean.\nA value of 'true' means that carbon dioxide has been detected.\nA value of
19923 'false' means that carbon dioxide has not been detected.\n",
19924       "parameters": [
19925         {"$ref": "#/parameters/interface"}
19926       ],
19927       "responses": {
19928         "200": {
19929           "description": "",
19930           "x-example":
19931             {
19932               "rt": ["oic.r.sensor.carbondioxide"],
19933               "id": "unique_example_id",
19934               "value": true
19935             }
19936           ,
19937           "schema": {"$ref": "#/definitions/CO2"}
19938         }
19939       }
19940     }
19941   },
19942 },
19943 "parameters": {
19944   "interface" : {
19945     "in" : "query",
19946     "name" : "if",
19947     "type" : "string",
19948     "enum" : ["oic.if.s", "oic.if.baseline"]
19949   }
19950 },
19951 "definitions": {
19952   "CO2" :
19953     {
19954       "properties": {
19955         "id": {
19956           "description": "Instance ID of this specific resource",
19957           "maxLength": 64,
19958           "readOnly": true,
19959           "type": "string"
19960         },
19961         "if": {
19962           "description": "The interface set supported by this resource",
19963           "items": {
19964             "enum": [
19965               "oic.if.baseline",
19966               "oic.if.ll",
19967               "oic.if.b",
19968               "oic.if.lb",
19969               "oic.if.rw",
19970               "oic.if.r",
19971               "oic.if.a",
19972               "oic.if.s"
19973             ],
19974             "type": "string"
19975           },
19976           "minItems": 1,
19977           "readOnly": true,
19978           "type": "array"
19979         },
19980         "n": {
19981           "description": "Friendly name of the resource",

```

```

19982         "maxLength": 64,
19983         "readOnly": true,
19984         "type": "string"
19985     },
19986     "precision": {
19987         "description": "Accuracy granularity of the exposed value",
19988         "readOnly": true,
19989         "type": "number"
19990     },
19991     "range": {
19992         "description": "The valid range for the value Property",
19993         "items": {
19994             "anyOf": [
19995                 {
19996                     "type": "number"
19997                 },
19998                 {
19999                     "type": "integer"
20000                 }
20001             ]
20002         },
20003         "maxItems": 2,
20004         "minItems": 2,
20005         "readOnly": true,
20006         "type": "array"
20007     },
20008     "rt": {
20009         "description": "Resource Type",
20010         "items": {
20011             "maxLength": 64,
20012             "type": "string"
20013         },
20014         "minItems": 1,
20015         "readOnly": true,
20016         "type": "array"
20017     },
20018     "step": {
20019         "anyOf": [
20020             {
20021                 "type": "integer"
20022             },
20023             {
20024                 "type": "number"
20025             }
20026         ],
20027         "description": "Step value across the defined range",
20028         "readOnly": true
20029     },
20030     "value": {
20031         "description": "true = sensed, false = not sensed.",
20032         "readOnly": true,
20033         "type": "boolean"
20034     }
20035 },
20036 "required": [
20037     "value"
20038 ],
20039 "type": "object"
20040 }
20041 }
20042 }
20043 }
20044 }

```

20045 **B.19.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property

step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
id	string		Read Only	Instance ID of this specific resource

20046 **B.19.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/CarbonDioxideResURI		get			

20047 **B.20 Carbon Monoxide Sensor**

20048 **B.20.1 Introduction**

20049 This resource describes whether carbon monoxide has been sensed or not.
 20050 The value is a boolean.
 20051 A value of 'true' means that carbon monoxide has been detected.
 20052 A value of 'false' means that carbon monoxide has not been detected.
 20053

20054 **B.20.2 Example URI**

20055 /CarbonMonoxideResURI

20056 **B.20.3 Resource Type**

20057 The resource type (rt) is defined as: ['oic.r.sensor.carbonmonoxide'].

20058 **B.20.4 Swagger2.0 Definition**

```

20059 {
20060   "swagger": "2.0",
20061   "info": {
20062     "title": "Carbon Monoxide Sensor",
20063     "version": "v1.1.0-20160519",
20064     "license": {
20065       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20066       "x-description": "Redistribution and use in source and binary forms, with or without
20067 modification, are permitted provided that the following conditions are met:\n      1.
20068 Redistributions of source code must retain the above copyright notice, this list of conditions and
20069 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
20070 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
20071 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
20072 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
20073 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
20074 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
20075 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
20076 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
20077 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
20078 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
  
```

```

20079 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20080 OF SUCH DAMAGE.\n"
20081 }
20082 },
20083 "schemes": ["http"],
20084 "consumes": ["application/json"],
20085 "produces": ["application/json"],
20086 "paths": {
20087   "/CarbonMonoxideResURI" : {
20088     "get": {
20089       "description": "This resource describes whether carbon monoxide has been sensed or
20090 not.\nThe value is a boolean.\nA value of 'true' means that carbon monoxide has been detected.\nA
20091 value of 'false' means that carbon monoxide has not been detected.\n",
20092       "parameters": [
20093         { "$ref": "#/parameters/interface" }
20094       ],
20095       "responses": {
20096         "200": {
20097           "description": "",
20098           "x-example":
20099             {
20100               "rt": ["oic.r.sensor.carbonmonoxide"],
20101               "id": "unique_example_id",
20102               "value": true
20103             }
20104           ,
20105           "schema": { "$ref": "#/definitions/CO" }
20106         }
20107       }
20108     }
20109   },
20110 },
20111 "parameters": {
20112   "interface" : {
20113     "in" : "query",
20114     "name" : "if",
20115     "type" : "string",
20116     "enum" : ["oic.if.s", "oic.if.baseline"]
20117   }
20118 },
20119 "definitions": {
20120   "CO" :
20121     {
20122       "properties": {
20123         "id": {
20124           "description": "Instance ID of this specific resource",
20125           "maxLength": 64,
20126           "readOnly": true,
20127           "type": "string"
20128         },
20129         "if": {
20130           "description": "The interface set supported by this resource",
20131           "items": {
20132             "enum": [
20133               "oic.if.baseline",
20134               "oic.if.ll",
20135               "oic.if.b",
20136               "oic.if.lb",
20137               "oic.if.rw",
20138               "oic.if.r",
20139               "oic.if.a",
20140               "oic.if.s"
20141             ],
20142             "type": "string"
20143           },
20144           "minItems": 1,
20145           "readOnly": true,
20146           "type": "array"
20147         },
20148         "n": {
20149           "description": "Friendly name of the resource",

```

```

20150         "maxLength": 64,
20151         "readOnly": true,
20152         "type": "string"
20153     },
20154     "precision": {
20155         "description": "Accuracy granularity of the exposed value",
20156         "readOnly": true,
20157         "type": "number"
20158     },
20159     "range": {
20160         "description": "The valid range for the value Property",
20161         "items": {
20162             "anyOf": [
20163                 {
20164                     "type": "number"
20165                 },
20166                 {
20167                     "type": "integer"
20168                 }
20169             ]
20170         },
20171         "maxItems": 2,
20172         "minItems": 2,
20173         "readOnly": true,
20174         "type": "array"
20175     },
20176     "rt": {
20177         "description": "Resource Type",
20178         "items": {
20179             "maxLength": 64,
20180             "type": "string"
20181         },
20182         "minItems": 1,
20183         "readOnly": true,
20184         "type": "array"
20185     },
20186     "step": {
20187         "anyOf": [
20188             {
20189                 "type": "integer"
20190             },
20191             {
20192                 "type": "number"
20193             }
20194         ],
20195         "description": "Step value across the defined range",
20196         "readOnly": true
20197     },
20198     "value": {
20199         "description": "true = sensed, false = not sensed.",
20200         "readOnly": true,
20201         "type": "boolean"
20202     }
20203 },
20204 "required": [
20205     "value"
20206 ],
20207 "type": "object"
20208 }
20209 }
20210 }
20211 }
20212

```

20213 **B.20.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource

range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

20214 **B.20.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/CarbonMonoxideResURI		get			

20215 **B.21 Clock**

20216 **B.21.1 Introduction**

20217 This resource describes the properties associated with clock and time.
 20218 Clock is a time information.
 20219 Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone)
 20220 Countdown is the desired total seconds for countdown.
 20221 Retrieves the current datetime data.
 20222

20223 **B.21.2 Example URI**

20224 /ClockResURI

20225 **B.21.3 Resource Type**

20226 The resource type (rt) is defined as: ['oic.r.clock'].

20227 **B.21.4 Swagger2.0 Definition**

```

20228 {
20229   "swagger": "2.0",
20230   "info": {
20231     "title": "Clock",
20232     "version": "v1.1.0-20160519",
20233     "license": {
20234       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20235       "x-description": "Redistribution and use in source and binary forms, with or without
20236 modification, are permitted provided that the following conditions are met:\n      1.
20237 Redistributions of source code must retain the above copyright notice, this list of conditions and
20238 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
20239 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
20240 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
20241 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
20242 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
20243 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
20244 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
  
```

```

20245 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
20246 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
20247 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
20248 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20249 OF SUCH DAMAGE.\n"
20250 }
20251 },
20252 "schemes": ["http"],
20253 "consumes": ["application/json"],
20254 "produces": ["application/json"],
20255 "paths": {
20256   "/ClockResURI" : {
20257     "get": {
20258       "description": "This resource describes the properties associated with clock and
20259 time.\nClock is a time information.\nDatetime is using ISO 8601 datetime format (e.g: \"2007-04-
20260 05T14:30Z\") (Time+Date+Timezone)\nCountdown is the desired total seconds for countdown.\nRetrieves
20261 the current datetime data.\n",
20262       "parameters": [
20263         { "$ref": "#/parameters/interface" }
20264       ],
20265       "responses": {
20266         "200": {
20267           "description": "",
20268           "x-example":
20269             {
20270               "rt": ["oic.r.clock"],
20271               "id": "unique_example_id",
20272               "datetime": "2015-11-05T14:30Z",
20273               "countdown": 0.0
20274             }
20275           ,
20276           "schema": { "$ref": "#/definitions/Clock" }
20277         }
20278       }
20279     },
20280     "post": {
20281       "description": "Sets the desired datetime.\n",
20282       "parameters": [
20283         { "$ref": "#/parameters/interface" },
20284         {
20285           "name": "body",
20286           "in": "body",
20287           "required": true,
20288           "schema": { "$ref": "#/definitions/Clock" },
20289           "x-example":
20290             {
20291               "id": "unique_example_id",
20292               "datetime": "2015-11-05T14:30Z",
20293               "countdown": 0.0
20294             }
20295         }
20296       ],
20297       "responses": {
20298         "200": {
20299           "description": "Indicates that the datetime value was successfully changed.\nThe new
20300 datetime value is provided in the response.\n",
20301           "x-example":
20302             {
20303               "id": "unique_example_id",
20304               "datetime": "2015-11-05T14:30Z",
20305               "countdown": 0.0
20306             }
20307           ,
20308           "schema": { "$ref": "#/definitions/Clock" }
20309         }
20310         ,
20311         "403": {
20312           "description": "Indicates that OIC client sent an invalid property value to the
20313 server.\nThe server responds with the required input representation.\n",
20314           "x-example":
20315             {
20316               "id": "unique_example_id",

```

```

20316         "datetime": "2015-11-05T14:30Z",
20317         "countdown": 0.0
20318     }
20319 },
20320     "schema": { "$ref": "#/definitions/Clock" }
20321 }
20322 }
20323 }
20324 },
20325 },
20326 "parameters": {
20327     "interface" : {
20328         "in" : "query",
20329         "name" : "if",
20330         "type" : "string",
20331         "enum" : ["oic.if.a", "oic.if.baseline"]
20332     }
20333 },
20334 "definitions": {
20335     "Clock" :
20336     {
20337         "properties": {
20338             "countdown": {
20339                 "description": "Desired total seconds for countdown",
20340                 "minimum": 0,
20341                 "type": "number"
20342             },
20343             "datetime": {
20344                 "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-
20345 05T14:30+09:00)",
20346                 "type": "string"
20347             },
20348             "id": {
20349                 "description": "Instance ID of this specific resource",
20350                 "maxLength": 64,
20351                 "readOnly": true,
20352                 "type": "string"
20353             },
20354             "if": {
20355                 "description": "The interface set supported by this resource",
20356                 "items": {
20357                     "enum": [
20358                         "oic.if.baseline",
20359                         "oic.if.ll",
20360                         "oic.if.b",
20361                         "oic.if.lb",
20362                         "oic.if.rw",
20363                         "oic.if.r",
20364                         "oic.if.a",
20365                         "oic.if.s"
20366                     ],
20367                     "type": "string"
20368                 },
20369                 "minItems": 1,
20370                 "readOnly": true,
20371                 "type": "array"
20372             },
20373             "n": {
20374                 "description": "Friendly name of the resource",
20375                 "maxLength": 64,
20376                 "readOnly": true,
20377                 "type": "string"
20378             },
20379             "precision": {
20380                 "description": "Accuracy granularity of the exposed value",
20381                 "readOnly": true,
20382                 "type": "number"
20383             },
20384             "range": {
20385                 "description": "The valid range for the value Property",
20386                 "items": {

```

```

20387         "anyOf": [
20388             {
20389                 "type": "number"
20390             },
20391             {
20392                 "type": "integer"
20393             }
20394         ]
20395     },
20396     "maxItems": 2,
20397     "minItems": 2,
20398     "readOnly": true,
20399     "type": "array"
20400 },
20401 "rt": {
20402     "description": "Resource Type",
20403     "items": {
20404         "maxLength": 64,
20405         "type": "string"
20406     },
20407     "minItems": 1,
20408     "readOnly": true,
20409     "type": "array"
20410 },
20411 "step": {
20412     "anyOf": [
20413         {
20414             "type": "integer"
20415         },
20416         {
20417             "type": "number"
20418         }
20419     ],
20420     "description": "Step value across the defined range",
20421     "readOnly": true
20422 },
20423 "value": {
20424     "anyOf": [
20425         {
20426             "type": "array"
20427         },
20428         {
20429             "type": "string"
20430         },
20431         {
20432             "type": "boolean"
20433         },
20434         {
20435             "type": "integer"
20436         },
20437         {
20438             "type": "number"
20439         },
20440         {
20441             "type": "object"
20442         }
20443     ],
20444     "description": "The value sensed or actuated by this Resource"
20445 }
20446 },
20447 "required": [
20448     "datetime"
20449 ],
20450 "type": "object"
20451 }
20452 }
20453 }
20454 }
20455

```

20456

B.21.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
datetime	string	yes		Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-05T14:30+09:00)
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
countdown	number			Desired total seconds for countdown
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

20457

B.21.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ClockResURI		get	post		

20458

B.22 Auto White Balance

20459

B.22.1 Introduction

20460 This resource describes an auto balance on/off feature.

20461 The value is a boolean.

20462 An AutoWhiteBalance value of 'true' means that the switch is on.

20463 An AutoWhiteBalance value of 'false' means that the switch is off.

20464

20465

B.22.2 Example URI

20466

/AutoWhiteBalanceResURI

20467

B.22.3 Resource Type

20468

The resource type (rt) is defined as: ['oic.r.colour.autowhitebalance'].

20469 **B.22.4 Swagger2.0 Definition**

```
20470 {
20471   "swagger": "2.0",
20472   "info": {
20473     "title": "Auto White Balance",
20474     "version": "v1.1.0-20160519",
20475     "license": {
20476       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20477       "x-description": "Redistribution and use in source and binary forms, with or without
20478 modification, are permitted provided that the following conditions are met:\n      1.
20479 Redistributions of source code must retain the above copyright notice, this list of conditions and
20480 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
20481 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
20482 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
20483 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
20484 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
20485 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
20486 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
20487 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
20488 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
20489 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
20490 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20491 OF SUCH DAMAGE.\n"
20492     }
20493   },
20494   "schemes": ["http"],
20495   "consumes": ["application/json"],
20496   "produces": ["application/json"],
20497   "paths": {
20498     "/AutoWhiteBalanceResURI" : {
20499       "get": {
20500         "description": "This resource describes an auto balance on/off feature.\nThe value is a
20501 boolean.\nAn AutoWhiteBalance value of 'true' means that the switch is on.\nAn AutoWhiteBalance
20502 value of 'false' means that the switch is off.\n",
20503         "parameters": [
20504           { "$ref": "#/parameters/interface" }
20505         ],
20506         "responses": {
20507           "200": {
20508             "description": "",
20509             "x-example":
20510               {
20511                 "rt": ["oic.r.colour.autowhitebalance"],
20512                 "id": "unique_example_id",
20513                 "autoWhiteBalance": false
20514               }
20515             ,
20516             "schema": { "$ref": "#/definitions/AutoWhiteBalance" }
20517           }
20518         }
20519       },
20520       "post": {
20521         "description": "",
20522         "parameters": [
20523           { "$ref": "#/parameters/interface" },
20524           {
20525             "name": "body",
20526             "in": "body",
20527             "required": true,
20528             "schema": { "$ref": "#/definitions/AutoWhiteBalance" },
20529             "x-example":
20530               {
20531                 "id": "unique_example_id",
20532                 "autoWhiteBalance": true
20533               }
20534           }
20535         ],
20536         "responses": {
20537           "200": {
20538             "description": "",
```

```

20539         "x-example":
20540             {
20541                 "id": "unique_example_id",
20542                 "autoWhiteBalance": true
20543             }
20544         ,
20545         "schema": { "$ref": "#/definitions/AutoWhiteBalance" }
20546     }
20547 }
20548 }
20549 }
20550 },
20551 "parameters": {
20552     "interface" : {
20553         "in" : "query",
20554         "name" : "if",
20555         "type" : "string",
20556         "enum" : ["oic.if.a", "oic.if.baseline"]
20557     }
20558 },
20559 "definitions": {
20560     "AutoWhiteBalance" :
20561     {
20562         "properties": {
20563             "autoWhiteBalance": {
20564                 "description": "Status of the Auto White balance",
20565                 "type": "boolean"
20566             },
20567             "id": {
20568                 "description": "Instance ID of this specific resource",
20569                 "maxLength": 64,
20570                 "readOnly": true,
20571                 "type": "string"
20572             },
20573             "if": {
20574                 "description": "The interface set supported by this resource",
20575                 "items": {
20576                     "enum": [
20577                         "oic.if.baseline",
20578                         "oic.if.ll",
20579                         "oic.if.b",
20580                         "oic.if.lb",
20581                         "oic.if.rw",
20582                         "oic.if.r",
20583                         "oic.if.a",
20584                         "oic.if.s"
20585                     ],
20586                     "type": "string"
20587                 },
20588                 "minItems": 1,
20589                 "readOnly": true,
20590                 "type": "array"
20591             },
20592             "n": {
20593                 "description": "Friendly name of the resource",
20594                 "maxLength": 64,
20595                 "readOnly": true,
20596                 "type": "string"
20597             },
20598             "precision": {
20599                 "description": "Accuracy granularity of the exposed value",
20600                 "readOnly": true,
20601                 "type": "number"
20602             },
20603             "range": {
20604                 "description": "The valid range for the value Property",
20605                 "items": {
20606                     "anyOf": [
20607                         {
20608                             "type": "number"
20609                         }

```

```

20610         {
20611             "type": "integer"
20612         }
20613     ],
20614 },
20615 "maxItems": 2,
20616 "minItems": 2,
20617 "readOnly": true,
20618 "type": "array"
20619 },
20620 "rt": {
20621     "description": "Resource Type",
20622     "items": {
20623         "maxLength": 64,
20624         "type": "string"
20625     },
20626     "minItems": 1,
20627     "readOnly": true,
20628     "type": "array"
20629 },
20630 "step": {
20631     "anyOf": [
20632         {
20633             "type": "integer"
20634         },
20635         {
20636             "type": "number"
20637         }
20638     ],
20639     "description": "Step value across the defined range",
20640     "readOnly": true
20641 },
20642 "value": {
20643     "anyOf": [
20644         {
20645             "type": "array"
20646         },
20647         {
20648             "type": "string"
20649         },
20650         {
20651             "type": "boolean"
20652         },
20653         {
20654             "type": "integer"
20655         },
20656         {
20657             "type": "number"
20658         },
20659         {
20660             "type": "object"
20661         }
20662     ],
20663     "description": "The value sensed or actuated by this Resource"
20664 },
20665 },
20666 "required": [
20667     "autoWhiteBalance"
20668 ],
20669 "type": "object"
20670 }
20671 }
20672 }
20673 }
20674

```

20675 **B.22.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or

				acted by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
autoWhiteBalance	boolean	yes		Status of the Auto White balance
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property

20676 **B.22.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/AutoWhiteBalanceResURI		get	post		

20677 **B.23 Colour Saturation**

20678 **B.23.1 Introduction**

20679 This resource describes a Colour saturation value.
 20680 The value is an integer.
 20681 A coloursaturation has a range of [0,100].
 20682 A coloursaturation value of 0 means producing black and white images.
 20683 A coloursaturation value of 50 means producing device specific normal colour images.
 20684 A coloursaturation value of 100 means producing device very full colour images.
 20685

20686 **B.23.2 Example URI**

20687 /ColourSaturationResURI

20688 **B.23.3 Resource Type**

20689 The resource type (rt) is defined as: ['oic.r.colour.saturation'].

20690 **B.23.4 Swagger2.0 Definition**

```

20691 {
20692   "swagger": "2.0",
20693   "info": {
20694     "title": "Colour Saturation",
20695     "version": "v1.1.0-20160519",
20696     "license": {
20697       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20698       "x-description": "Redistribution and use in source and binary forms, with or without
20699 modification, are permitted provided that the following conditions are met:\n      1.
20700 Redistributions of source code must retain the above copyright notice, this list of conditions and
20701 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
  
```

```

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20706 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n IN NO EVENT SHALL THE Open Connectivity
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20708 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
20709 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n HOWEVER CAUSED AND
20710 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
20711 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20712 OF SUCH DAMAGE.\n"
20713 }
20714 },
20715 "schemes": ["http"],
20716 "consumes": ["application/json"],
20717 "produces": ["application/json"],
20718 "paths": {
20719 "/ColourSaturationResURI" : {
20720 "get": {
20721 "description": "This resource describes a Colour saturation value.\nThe value is an
20722 integer.\nA coloursaturation has a range of [0,100].\nA coloursaturation value of 0 means producing
20723 black and white images.\nA coloursaturation value of 50 means producing device specific normal
20724 colour images.\nA coloursaturation value of 100 means producing device very full colour images.\n",
20725 "parameters": [
20726 {"$ref": "#/parameters/interface"}
20727 ],
20728 "responses": {
20729 "200": {
20730 "description": "",
20731 "x-example":
20732 {
20733 "rt": ["oic.r.colour.saturation"],
20734 "id": "unique_example_id",
20735 "colourSaturation": 50
20736 }
20737 ,
20738 "schema": { "$ref": "#/definitions/Saturation" }
20739 }
20740 }
20741 },
20742 "post": {
20743 "description": "",
20744 "parameters": [
20745 {"$ref": "#/parameters/interface"},
20746 {
20747 "name": "body",
20748 "in": "body",
20749 "required": true,
20750 "schema": { "$ref": "#/definitions/Saturation" },
20751 "x-example":
20752 {
20753 "id": "unique_example_id",
20754 "colourSaturation": 60
20755 }
20756 }
20757 ],
20758 "responses": {
20759 "200": {
20760 "description": "",
20761 "x-example":
20762 {
20763 "id": "unique_example_id",
20764 "colourSaturation": 60
20765 }
20766 ,
20767 "schema": { "$ref": "#/definitions/Saturation" }
20768 }
20769 }
20770 }
20771 },
20772 },

```

```

20773 "parameters": {
20774   "interface": {
20775     "in": "query",
20776     "name": "if",
20777     "type": "string",
20778     "enum": ["oic.if.a", "oic.if.baseline"]
20779   },
20780 },
20781 "definitions": {
20782   "Saturation": {
20783     {
20784     "properties": {
20785       "colourSaturation": {
20786         "description": "The colour saturation value",
20787         "maximum": 100,
20788         "minimum": 0,
20789         "type": "integer"
20790       },
20791       "id": {
20792         "description": "Instance ID of this specific resource",
20793         "maxLength": 64,
20794         "readOnly": true,
20795         "type": "string"
20796       },
20797       "if": {
20798         "description": "The interface set supported by this resource",
20799         "items": {
20800           "enum": [
20801             "oic.if.baseline",
20802             "oic.if.ll",
20803             "oic.if.b",
20804             "oic.if.lb",
20805             "oic.if.rw",
20806             "oic.if.r",
20807             "oic.if.a",
20808             "oic.if.s"
20809           ],
20810           "type": "string"
20811         },
20812         "minItems": 1,
20813         "readOnly": true,
20814         "type": "array"
20815       },
20816       "n": {
20817         "description": "Friendly name of the resource",
20818         "maxLength": 64,
20819         "readOnly": true,
20820         "type": "string"
20821       },
20822       "precision": {
20823         "description": "Accuracy granularity of the exposed value",
20824         "readOnly": true,
20825         "type": "number"
20826       },
20827       "range": {
20828         "description": "The valid range for the value Property",
20829         "items": {
20830           "anyOf": [
20831             {
20832               "type": "number"
20833             },
20834             {
20835               "type": "integer"
20836             }
20837           ]
20838         },
20839         "maxItems": 2,
20840         "minItems": 2,
20841         "readOnly": true,
20842         "type": "array"
20843       },

```

```

20844     "rt": {
20845         "description": "Resource Type",
20846         "items": {
20847             "maxLength": 64,
20848             "type": "string"
20849         },
20850         "minItems": 1,
20851         "readOnly": true,
20852         "type": "array"
20853     },
20854     "step": {
20855         "anyOf": [
20856             {
20857                 "type": "integer"
20858             },
20859             {
20860                 "type": "number"
20861             }
20862         ],
20863         "description": "Step value across the defined range",
20864         "readOnly": true
20865     },
20866     "value": {
20867         "anyOf": [
20868             {
20869                 "type": "array"
20870             },
20871             {
20872                 "type": "string"
20873             },
20874             {
20875                 "type": "boolean"
20876             },
20877             {
20878                 "type": "integer"
20879             },
20880             {
20881                 "type": "number"
20882             },
20883             {
20884                 "type": "object"
20885             }
20886         ],
20887         "description": "The value sensed or actuated by this Resource"
20888     }
20889 },
20890 "required": [
20891     "colourSaturation"
20892 ],
20893 "type": "object"
20894 }
20895 }
20896 }
20897 }
20898 }

```

20899 **B.23.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
colourSaturation	integer	yes		The colour saturation value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type

precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource

20900 **B.23.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ColourSaturationResURI		get	post		

20901 **B.24 Colour Chroma**

20902 **B.24.1 Introduction**

20903 This resource describes the colour using chroma conventions.
 20904 Properties are hue, saturation, csc, and ct.
 20905 hue is the hue angle, it is an integer value as defined by the CIECAM02 model definition (see
 20906 reference [CIE CIE159:2004]).
 20907 saturation is an integer value as defined by the CIECAM02 model definition (see reference [CIE
 20908 CIE159:2004]).
 20909 maximumsaturation is the upper bound on the saturation supported by the Device.
 20910 If not present the maximum value for saturation is 32767.
 20911 csc is the colour space coordinates in CIE colour space.
 20912 The first item in the array is the X coordinate.
 20913 The second item in the array is the Y coordinate.
 20914 ct is the Mired colour temperature.
 20915 Provides the colour using chroma conventions.
 20916

20917 **B.24.2 Example URI**

20918 /example/ColourChromaResURI

20919 **B.24.3 Resource Type**

20920 The resource type (rt) is defined as: ['oic.r.colour.chroma'].

20921 **B.24.4 Swagger2.0 Definition**

```

20922 {
20923   "swagger": "2.0",
20924   "info": {
20925     "title": "Colour Chroma",
20926     "version": "v1.1.0-20160519",
20927     "license": {
20928       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20929       "x-description": "Redistribution and use in source and binary forms, with or without
20930 modification, are permitted provided that the following conditions are met:\n
20931 1.
Redistributions of source code must retain the above copyright notice, this list of conditions and

```


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20942 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20943 OF SUCH DAMAGE.\n"

```

20944     }
20945   },
20946   "schemes": ["http"],
20947   "consumes": ["application/json"],
20948   "produces": ["application/json"],
20949   "paths": {
20950     "/example/ColourChromaResURI" : {
20951       "get": {
20952         "description": "This resource describes the colour using chroma conventions.\nProperties
20953 are hue, saturation, csc, and ct.\nhue is the hue angle, it is an integer value as defined by the
20954 CIECAM02 model definition (see reference [CIE CIE159:2004]).\nsaturation is an integer value as
20955 defined by the CIECAM02 model definition (see reference [CIE CIE159:2004]).\nmaximumsaturation is
20956 the upper bound on the saturation supported by the Device.\n If not present the maximum value
20957 for saturation is 32767.\ncsc is the colour space coordinates in CIE colour space.\n The first
20958 item in the array is the X coordinate.\n The second item in the array is the Y coordinate.\nct is
20959 the Mired colour temperature.\nProvides the colour using chroma conventions.\n",
20960         "parameters": [
20961           { "$ref": "#/parameters/interface" }
20962         ],
20963         "responses": {
20964           "200": {
20965             "description": "",
20966             "x-example":
20967             {
20968               "rt": ["oic.r.colour.chroma"],
20969               "id": "unique_example_id",
20970               "hue": 256.0,
20971               "saturation": 212,
20972               "maximumsaturation": 1000,
20973               "csc": [0.41,0.51],
20974               "ct": 457
20975             }
20976           },
20977           "schema": { "$ref": "#/definitions/ColourChroma" }
20978         }
20979       }
20980     },
20981     "post": {
20982       "description": "Sets current colour chroma values\n",
20983       "parameters": [
20984         { "$ref": "#/parameters/interface" },
20985         {
20986           "name": "body",
20987           "in": "body",
20988           "required": true,
20989           "schema": { "$ref": "#/definitions/ColourChroma" },
20990           "x-example":
20991           {
20992             "id": "unique_example_id",
20993             "hue": 300.0,
20994             "saturation": 212,
20995             "csc": [0.41,0.51],
20996             "ct": 457
20997           }
20998         }
20999       ],
21000       "responses": {
21001         "200": {
21002           "description": "",

```

```

21003         "x-example":
21004             {
21005                 "id":          "unique_example_id",
21006                 "hue":        300.0,
21007                 "saturation": 212,
21008                 "csc":        [0.41,0.51],
21009                 "ct":         467
21010             }
21011         ,
21012         "schema": { "$ref": "#/definitions/ColourChroma" }
21013     }
21014 }
21015 }
21016 }
21017 },
21018 "parameters": {
21019     "interface" : {
21020         "in" : "query",
21021         "name" : "if",
21022         "type" : "string",
21023         "enum" : ["oic.if.a", "oic.if.baseline"]
21024     }
21025 },
21026 "definitions": {
21027     "ColourChroma" :
21028         {
21029         "properties": {
21030             "csc": {
21031                 "description": "X and Y coordinates of the colour in CIE colour space",
21032                 "items": {
21033                     "maximum": 1,
21034                     "minimum": 0,
21035                     "type": "number"
21036                 },
21037                 "maxItems": 2,
21038                 "minItems": 2,
21039                 "type": "array"
21040             },
21041             "ct": {
21042                 "description": "Mired colour temperature",
21043                 "minimum": 0,
21044                 "type": "integer"
21045             },
21046             "hue": {
21047                 "description": "Hue angle as defined by the CIECAM02 model definition",
21048                 "maximum": 360,
21049                 "minimum": 0,
21050                 "type": "number"
21051             },
21052             "id": {
21053                 "description": "Instance ID of this specific resource",
21054                 "maxLength": 64,
21055                 "readOnly": true,
21056                 "type": "string"
21057             },
21058             "if": {
21059                 "description": "The interface set supported by this resource",
21060                 "items": {
21061                     "enum": [
21062                         "oic.if.baseline",
21063                         "oic.if.ll",
21064                         "oic.if.b",
21065                         "oic.if.lb",
21066                         "oic.if.rw",
21067                         "oic.if.r",
21068                         "oic.if.a",
21069                         "oic.if.s"
21070                     ],
21071                     "type": "string"
21072                 },
21073                 "minItems": 1,

```

```

21074         "readOnly": true,
21075         "type": "array"
21076     },
21077     "maximumsaturation": {
21078         "description": "Maximum supported value of Saturation for this Device",
21079         "maximum": 32767,
21080         "minimum": 0,
21081         "readOnly": true,
21082         "type": "integer"
21083     },
21084     "n": {
21085         "description": "Friendly name of the resource",
21086         "maxLength": 64,
21087         "readOnly": true,
21088         "type": "string"
21089     },
21090     "precision": {
21091         "description": "Accuracy granularity of the exposed value",
21092         "readOnly": true,
21093         "type": "number"
21094     },
21095     "range": {
21096         "description": "The valid range for the value Property",
21097         "items": {
21098             "anyOf": [
21099                 {
21100                     "type": "number"
21101                 },
21102                 {
21103                     "type": "integer"
21104                 }
21105             ]
21106         },
21107         "maxItems": 2,
21108         "minItems": 2,
21109         "readOnly": true,
21110         "type": "array"
21111     },
21112     "rt": {
21113         "description": "Resource Type",
21114         "items": {
21115             "maxLength": 64,
21116             "type": "string"
21117         },
21118         "minItems": 1,
21119         "readOnly": true,
21120         "type": "array"
21121     },
21122     "saturation": {
21123         "description": "Saturation as defined by the CIECAM02 model definition",
21124         "maximum": 32767,
21125         "minimum": 0,
21126         "type": "integer"
21127     },
21128     "step": {
21129         "anyOf": [
21130             {
21131                 "type": "integer"
21132             },
21133             {
21134                 "type": "number"
21135             }
21136         ],
21137         "description": "Step value across the defined range",
21138         "readOnly": true
21139     },
21140     "value": {
21141         "anyOf": [
21142             {
21143                 "type": "array"
21144             },

```

```

21145     {
21146         "type": "string"
21147     },
21148     {
21149         "type": "boolean"
21150     },
21151     {
21152         "type": "integer"
21153     },
21154     {
21155         "type": "number"
21156     },
21157     {
21158         "type": "object"
21159     }
21160 ],
21161 "description": "The value sensed or actuated by this Resource"
21162 },
21163 },
21164 "required": [
21165     "hue",
21166     "saturation",
21167     "csc"
21168 ],
21169 "type": "object"
21170 }
21171 }
21172 }
21173 }
21174 }

```

21175 **B.24.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
ct	integer			Mired colour temperature
hue	number	yes		Hue angle as defined by the CIECAM02 model definition
value	multiple types: see schema			The value sensed or actuated by this Resource
csc	array: see schema	yes		X and Y coordinates of the colour in CIE colour space
n	string		Read Only	Friendly name of the resource
maximumsaturation	integer		Read Only	Maximum supported value of Saturation for this Device
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range

if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
saturation	integer	yes		Saturation as defined by the CIECAM02 model definition

21176 **B.24.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/example/ColourChromaResURI		get	post		

21177 **B.25 Colour Space Coordinates**

21178 **B.25.1 Introduction**

21179 This resource describes the colour using colour space co-ordinates.
 21180 csc is the colour space coordinates in CIE colour space.
 21181 The first item in the array is the X coordinate.
 21182 The second item in the array is the Y coordinate.
 21183 If precision (from oic.r.baseresource) is provided it applies to both the X and Y coordinates.
 21184 Provides the colour using colour space coordinates.
 21185

21186 **B.25.2 Example URI**

21187 /example/ColourSpaceCoordinatesResURI

21188 **B.25.3 Resource Type**

21189 The resource type (rt) is defined as: ['oic.r.colour.csc'].

21190 **B.25.4 Swagger2.0 Definition**

```

21191 {
21192   "swagger": "2.0",
21193   "info": {
21194     "title": "Colour Space Coordinates",
21195     "version": "OCFv1.1.0-2017",
21196     "license": {
21197       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
21198       "x-description": "Redistribution and use in source and binary forms, with or without
21199 modification, are permitted provided that the following conditions are met:\n      1.
21200 Redistributions of source code must retain the above copyright notice, this list of conditions and
21201 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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21210 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
21211 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
21212 OF SUCH DAMAGE.\n"
21213     }
21214   },
21215   "schemes": ["http"],

```

```

21216     "consumes": ["application/json"],
21217     "produces": ["application/json"],
21218     "paths": {
21219         "/example/ColourSpaceCoordinatesResURI" : {
21220             "get": {
21221                 "description": "This resource describes the colour using colour space co-ordinates.\nncsc is
21222 the colour space coordinates in CIE colour space.\n The first item in the array is the X
21223 coordinate.\n The second item in the array is the Y coordinate.\n If precision (from
21224 oic.r.baseresource) is provided it applies to both the X and Y coordinates.\nProvides the colour
21225 using colour space coordinates.\n",
21226                 "parameters": [
21227                     { "$ref": "#/parameters/interface-all" }
21228                 ],
21229                 "responses": {
21230                     "200": {
21231                         "description": "",
21232                         "x-example":
21233                             {
21234                                 "rt": ["oic.r.colour.csc"],
21235                                 "id": "unique_example_id",
21236                                 "csc": [0.41,0.51]
21237                             }
21238                             ,
21239                             "schema": { "$ref": "#/definitions/ColourCSC" }
21240                         }
21241                     }
21242                 },
21243                 "post": {
21244                     "description": "Sets current colour space coordinates\n",
21245                     "parameters": [
21246                         { "$ref": "#/parameters/interface-a" },
21247                         {
21248                             "name": "body",
21249                             "in": "body",
21250                             "required": true,
21251                             "schema": { "$ref": "#/definitions/ColourCSC" },
21252                             "x-example":
21253                                 {
21254                                     "id": "unique_example_id",
21255                                     "csc": [0.40,0.70]
21256                                 }
21257                             }
21258                         ],
21259                     "responses": {
21260                         "200": {
21261                             "description": "",
21262                             "x-example":
21263                                 {
21264                                     "id": "unique_example_id",
21265                                     "csc": [0.40,0.70]
21266                                 }
21267                                 ,
21268                                 "schema": { "$ref": "#/definitions/ColourCSC" }
21269                             }
21270                         }
21271                     }
21272                 }
21273             },
21274             "parameters": {
21275                 "interface-a" : {
21276                     "in" : "query",
21277                     "name" : "if",
21278                     "type" : "string",
21279                     "enum" : ["oic.if.a"]
21280                 },
21281                 "interface-all" : {
21282                     "in" : "query",
21283                     "name" : "if",
21284                     "type" : "string",
21285                     "enum" : ["oic.if.a", "oic.if.baseline"]
21286                 }

```

```

21287 },
21288 "definitions": {
21289   "ColourCSC" :
21290     {
21291       "properties": {
21292         "csc": {
21293           "description": "X and Y coordinates of the colour in CIE colour space",
21294           "items": {
21295             "maximum": 1,
21296             "minimum": 0,
21297             "type": "number"
21298           },
21299           "maxItems": 2,
21300           "minItems": 2,
21301           "type": "array"
21302         },
21303         "id": {
21304           "description": "Instance ID of this specific resource",
21305           "maxLength": 64,
21306           "readOnly": true,
21307           "type": "string"
21308         },
21309         "if": {
21310           "description": "The interface set supported by this resource",
21311           "items": {
21312             "enum": [
21313               "oic.if.baseline",
21314               "oic.if.ll",
21315               "oic.if.b",
21316               "oic.if.lb",
21317               "oic.if.rw",
21318               "oic.if.r",
21319               "oic.if.a",
21320               "oic.if.s"
21321             ],
21322             "type": "string"
21323           },
21324           "minItems": 1,
21325           "readOnly": true,
21326           "type": "array"
21327         },
21328         "n": {
21329           "description": "Friendly name of the resource",
21330           "maxLength": 64,
21331           "readOnly": true,
21332           "type": "string"
21333         },
21334         "precision": {
21335           "description": "Accuracy granularity of the exposed value",
21336           "readOnly": true,
21337           "type": "number"
21338         },
21339         "range": {
21340           "description": "The valid range for the value Property",
21341           "items": {
21342             "anyOf": [
21343               {
21344                 "type": "number"
21345               },
21346               {
21347                 "type": "integer"
21348               }
21349             ]
21350           },
21351           "maxItems": 2,
21352           "minItems": 2,
21353           "readOnly": true,
21354           "type": "array"
21355         },
21356         "rt": {
21357           "description": "Resource Type",

```

```

21358         "items": {
21359             "maxLength": 64,
21360             "type": "string"
21361         },
21362         "minItems": 1,
21363         "readOnly": true,
21364         "type": "array"
21365     },
21366     "step": {
21367         "anyOf": [
21368             {
21369                 "type": "integer"
21370             },
21371             {
21372                 "type": "number"
21373             }
21374         ],
21375         "description": "Step value across the defined range",
21376         "readOnly": true
21377     },
21378     "value": {
21379         "anyOf": [
21380             {
21381                 "type": "array"
21382             },
21383             {
21384                 "type": "string"
21385             },
21386             {
21387                 "type": "boolean"
21388             },
21389             {
21390                 "type": "integer"
21391             },
21392             {
21393                 "type": "number"
21394             },
21395             {
21396                 "type": "object"
21397             }
21398         ],
21399         "description": "The value sensed or actuated by this Resource"
21400     }
21401 },
21402 "required": [
21403     "csc"
21404 ],
21405 "type": "object"
21406 }
21407 }
21408 }
21409 }
21410 }

```

21411 B.25.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
csc	array: see schema	yes		X and Y coordinates of the colour in CIE colour space
value	multiple types: see schema			The value sensed or actuated by this Resource

if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range

21412 **B.25.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/example/ColourSpaceCoordinatesResURI		get	post		

21413 **B.26 Colour Temperature**

21414 **B.26.1 Introduction**

21415 This resource describes the colour using colour temperature conventions.
 21416 ct is the Mired colour temperature.
 21417 The equivalent value in Kelvin is obtained by Colour Temp(K) = 1,000,000/Colour Temp(Mired)
 21418 Provides the colour using colour temperature conventions.
 21419

21420 **B.26.2 Example URI**

21421 /example/ColourTemperatureResURI

21422 **B.26.3 Resource Type**

21423 The resource type (rt) is defined as: ['oic.r.colour.colourtemperature'].

21424 **B.26.4 Swagger2.0 Definition**

```

21425 {
21426   "swagger": "2.0",
21427   "info": {
21428     "title": "Colour Temperature",
21429     "version": "OCFv1.0-2017",
21430     "license": {
21431       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
21432       "x-description": "Redistribution and use in source and binary forms, with or without
21433 modification, are permitted provided that the following conditions are met:\n      1.
21434 Redistributions of source code must retain the above copyright notice, this list of conditions and
21435 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
21436 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
21437 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
21438 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
21439 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
21440 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
21441 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
21442 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
21443 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
21444 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
21445 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
21446 OF SUCH DAMAGE.\n"
21447   }
  
```

```

21448 },
21449 "schemes": ["http"],
21450 "consumes": ["application/json"],
21451 "produces": ["application/json"],
21452 "paths": {
21453   "/example/ColourTemperatureResURI" : {
21454     "get": {
21455       "description": "This resource describes the colour using colour temperature
21456 conventions.\nct is the Mired colour temperature.\nThe equivalent value in Kelvin is obtained by
21457 Colour Temp(K) = 1,000,000/Colour Temp(Mired)\nProvides the colour using colour temperature
21458 conventions.\n",
21459       "parameters": [
21460         {"$ref": "#/parameters/interface-all"}
21461       ],
21462       "responses": {
21463         "200": {
21464           "description": "",
21465           "x-example":
21466             {
21467               "rt": ["oic.r.colour.colourtemperature"],
21468               "id": "unique_example_id",
21469               "ct": 457
21470             }
21471           ,
21472           "schema": {"$ref": "#/definitions/ColourTemp" }
21473         }
21474       }
21475     },
21476     "post": {
21477       "description": "Sets current colour temperature value\n",
21478       "parameters": [
21479         {"$ref": "#/parameters/interface-a"},
21480         {
21481           "name": "body",
21482           "in": "body",
21483           "required": true,
21484           "schema": {"$ref": "#/definitions/ColourTemp" },
21485           "x-example":
21486             {
21487               "id": "unique_example_id",
21488               "ct": 457
21489             }
21490         }
21491       ],
21492       "responses": {
21493         "200": {
21494           "description": "",
21495           "x-example":
21496             {
21497               "id": "unique_example_id",
21498               "ct": 467
21499             }
21500           ,
21501           "schema": {"$ref": "#/definitions/ColourTemp" }
21502         }
21503       }
21504     }
21505   },
21506 },
21507 "parameters": {
21508   "interface-a" : {
21509     "in" : "query",
21510     "name" : "if",
21511     "type" : "string",
21512     "enum" : ["oic.if.a"]
21513   },
21514   "interface-all" : {
21515     "in" : "query",
21516     "name" : "if",
21517     "type" : "string",
21518     "enum" : ["oic.if.a", "oic.if.baseline"]

```

```

21519     }
21520   },
21521   "definitions": {
21522     "ColourTemp" :
21523     {
21524       "properties": {
21525         "ct": {
21526           "description": "Mired colour temperature",
21527           "minimum": 0,
21528           "type": "integer"
21529         },
21530         "id": {
21531           "description": "Instance ID of this specific resource",
21532           "maxLength": 64,
21533           "readOnly": true,
21534           "type": "string"
21535         },
21536         "if": {
21537           "description": "The interface set supported by this resource",
21538           "items": {
21539             "enum": [
21540               "oic.if.baseline",
21541               "oic.if.ll",
21542               "oic.if.b",
21543               "oic.if.lb",
21544               "oic.if.rw",
21545               "oic.if.r",
21546               "oic.if.a",
21547               "oic.if.s"
21548             ],
21549             "type": "string"
21550           },
21551           "minItems": 1,
21552           "readOnly": true,
21553           "type": "array"
21554         },
21555         "n": {
21556           "description": "Friendly name of the resource",
21557           "maxLength": 64,
21558           "readOnly": true,
21559           "type": "string"
21560         },
21561         "precision": {
21562           "description": "Accuracy granularity of the exposed value",
21563           "readOnly": true,
21564           "type": "number"
21565         },
21566         "range": {
21567           "description": "The valid range for the value Property",
21568           "items": {
21569             "anyOf": [
21570               {
21571                 "type": "number"
21572               },
21573               {
21574                 "type": "integer"
21575               }
21576             ]
21577           },
21578           "maxItems": 2,
21579           "minItems": 2,
21580           "readOnly": true,
21581           "type": "array"
21582         },
21583         "rt": {
21584           "description": "Resource Type",
21585           "items": {
21586             "maxLength": 64,
21587             "type": "string"
21588           },
21589           "minItems": 1,

```

```

21590         "readOnly": true,
21591         "type": "array"
21592     },
21593     "step": {
21594         "anyOf": [
21595             {
21596                 "type": "integer"
21597             },
21598             {
21599                 "type": "number"
21600             }
21601         ],
21602         "description": "Step value across the defined range",
21603         "readOnly": true
21604     },
21605     "value": {
21606         "anyOf": [
21607             {
21608                 "type": "array"
21609             },
21610             {
21611                 "type": "string"
21612             },
21613             {
21614                 "type": "boolean"
21615             },
21616             {
21617                 "type": "integer"
21618             },
21619             {
21620                 "type": "number"
21621             },
21622             {
21623                 "type": "object"
21624             }
21625         ],
21626         "description": "The value sensed or actuated by this Resource"
21627     }
21628 },
21629 "required": [
21630     "ct"
21631 ],
21632 "type": "object"
21633 }
21634 }
21635 }
21636 }
21637

```

21638 B.26.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource

ct	integer	yes		Mired colour temperature
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value

21639 **B.26.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/example/ColourTemperatureResURI		get	post		

21640 **B.27 Colour Hue and Saturation**

21641 **B.27.1 Introduction**

21642 This resource describes the colour using hue-saturation conventions.
 21643 hue is the hue angle, it is a number value as defined by the CIECAM02 model definition (see
 21644 reference [CIE CIE159:2004]).
 21645 A Device that does not support fractional hue angles can provide integer values.
 21646 If precision (from oic.r.baseresource) is provided it applies to the hue angle.
 21647 saturation is an integer value as defined by the CIECAM02 model definition (see reference [CIE
 21648 CIE159:2004]).
 21649 saturation can be converted to a percentage by saturation/maximumsaturation X 100; where
 21650 maximumsaturation is 32767 if the Property itself is not present.
 21651 maximumsaturation is the upper bound on the saturation supported by the Device.
 21652 If not present the maximum value for saturation is 32767.
 21653 Provides the colour using hue and saturation conventions.
 21654

21655 **B.27.2 Example URI**

21656 /example/ColourHueSaturationResURI

21657 **B.27.3 Resource Type**

21658 The resource type (rt) is defined as: ['oic.r.colour.hs'].

21659 **B.27.4 Swagger2.0 Definition**

```

21660 {
21661   "swagger": "2.0",
21662   "info": {
21663     "title": "Colour Hue and Saturation",
21664     "version": "v1.0-2017",
21665     "license": {
21666       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
21667       "x-description": "Redistribution and use in source and binary forms, with or without
21668 modification, are permitted provided that the following conditions are met:\n      1.
21669 Redistributions of source code must retain the above copyright notice, this list of conditions and
21670 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
21671 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
21672 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
21673 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
21674 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
21675 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
21676 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
21677 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
21678 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
21679 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
  
```

```

21680 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
21681 OF SUCH DAMAGE.\n"
21682 }
21683 },
21684 "schemes": ["http"],
21685 "consumes": ["application/json"],
21686 "produces": ["application/json"],
21687 "paths": {
21688   "/example/ColourHueSaturationResURI" : {
21689     "get": {
21690       "description": "This resource describes the colour using hue-saturation conventions.\nhue
21691 is the hue angle, it is a number value as defined by the CIECAM02 model definition (see reference
21692 [CIE CIE159:2004]).\n A Device that does not support fractional hue angles can provide integer
21693 values.\n If precision (from oic.r.baseresource) is provided it applies to the hue
21694 angle.\nsaturation is an integer value as defined by the CIECAM02 model definition (see reference
21695 [CIE CIE159:2004]).\n saturation can be converted to a percentage by saturation/maximumsaturation
21696 X 100; where maximumsaturation is 32767 if the Property itself is not present.\nmaximumsaturation
21697 is the upper bound on the saturation supported by the Device.\n If not present the maximum value
21698 for saturation is 32767.\nProvides the colour using hue and saturation conventions.\n",
21699       "parameters": [
21700         {"$ref": "#/parameters/interface-all"}
21701       ],
21702       "responses": {
21703         "200": {
21704           "description": "",
21705           "x-example":
21706             {
21707               "rt": ["oic.r.colour.hs"],
21708               "id": "unique_example_id",
21709               "hue": 300.0,
21710               "saturation": 212,
21711               "maximumsaturation": 1000
21712             }
21713           ,
21714           "schema": { "$ref": "#/definitions/ColourHS" }
21715         }
21716       }
21717     },
21718     "post": {
21719       "description": "Sets current colour hue and saturation values.\nAt least one of hue or
21720 saturation shall be provided in the payload.\n",
21721       "parameters": [
21722         {"$ref": "#/parameters/interface-a"},
21723         {
21724           "name": "body",
21725           "in": "body",
21726           "required": true,
21727           "schema": { "$ref": "#/definitions/ColourHS" },
21728           "x-example":
21729             {
21730               "id": "unique_example_id",
21731               "hue": 300.0,
21732               "saturation": 212
21733             }
21734         }
21735       ],
21736       "responses": {
21737         "200": {
21738           "description": "",
21739           "x-example":
21740             {
21741               "id": "unique_example_id",
21742               "hue": 300.0,
21743               "saturation": 212
21744             }
21745           ,
21746           "schema": { "$ref": "#/definitions/ColourHS" }
21747         }
21748       }
21749     }
21750   }

```

```

21751 },
21752 "parameters": {
21753   "interface-a" : {
21754     "in" : "query",
21755     "name" : "if",
21756     "type" : "string",
21757     "enum" : ["oic.if.a"]
21758   },
21759   "interface-all" : {
21760     "in" : "query",
21761     "name" : "if",
21762     "type" : "string",
21763     "enum" : ["oic.if.a", "oic.if.baseline"]
21764   }
21765 },
21766 "definitions": {
21767   "ColourHS" :
21768     {
21769     "properties": {
21770       "hue": {
21771         "description": "Hue angle as defined by the CIECAM02 model definition",
21772         "maximum": 360,
21773         "minimum": 0,
21774         "type": "number"
21775       },
21776       "id": {
21777         "description": "Instance ID of this specific resource",
21778         "maxLength": 64,
21779         "readOnly": true,
21780         "type": "string"
21781       },
21782       "if": {
21783         "description": "The interface set supported by this resource",
21784         "items": {
21785           "enum": [
21786             "oic.if.baseline",
21787             "oic.if.ll",
21788             "oic.if.b",
21789             "oic.if.lb",
21790             "oic.if.rw",
21791             "oic.if.r",
21792             "oic.if.a",
21793             "oic.if.s"
21794           ],
21795           "type": "string"
21796         },
21797         "minItems": 1,
21798         "readOnly": true,
21799         "type": "array"
21800       },
21801       "maximumsaturation": {
21802         "description": "Maximum supported value of Saturation for this Device",
21803         "maximum": 32767,
21804         "minimum": 0,
21805         "readOnly": true,
21806         "type": "integer"
21807       },
21808       "n": {
21809         "description": "Friendly name of the resource",
21810         "maxLength": 64,
21811         "readOnly": true,
21812         "type": "string"
21813       },
21814       "precision": {
21815         "description": "Accuracy granularity of the exposed value",
21816         "readOnly": true,
21817         "type": "number"
21818       },
21819       "range": {
21820         "description": "The valid range for the value Property",
21821         "items": {

```

```

21822         "anyOf": [
21823             {
21824                 "type": "number"
21825             },
21826             {
21827                 "type": "integer"
21828             }
21829         ]
21830     },
21831     "maxItems": 2,
21832     "minItems": 2,
21833     "readOnly": true,
21834     "type": "array"
21835 },
21836 "rt": {
21837     "description": "Resource Type",
21838     "items": {
21839         "maxLength": 64,
21840         "type": "string"
21841     },
21842     "minItems": 1,
21843     "readOnly": true,
21844     "type": "array"
21845 },
21846 "saturation": {
21847     "description": "Saturation as defined by the CIECAM02 model definition",
21848     "maximum": 32767,
21849     "minimum": 0,
21850     "type": "integer"
21851 },
21852 "step": {
21853     "anyOf": [
21854         {
21855             "type": "integer"
21856         },
21857         {
21858             "type": "number"
21859         }
21860     ],
21861     "description": "Step value across the defined range",
21862     "readOnly": true
21863 },
21864 "value": {
21865     "anyOf": [
21866         {
21867             "type": "array"
21868         },
21869         {
21870             "type": "string"
21871         },
21872         {
21873             "type": "boolean"
21874         },
21875         {
21876             "type": "integer"
21877         },
21878         {
21879             "type": "number"
21880         },
21881         {
21882             "type": "object"
21883         }
21884     ],
21885     "description": "The value sensed or actuated by this Resource"
21886 }
21887 },
21888 "required": [
21889     "hue",
21890     "saturation"
21891 ],
21892 "type": "object"

```


21893 }
 21894 }
 21895 }
 21896 }
 21897 }

21898 **B.27.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
precision	number		Read Only	Accuracy granularity of the exposed value
saturation	integer	yes		Saturation as defined by the CIECAM02 model definition
maximumsaturation	integer		Read Only	Maximum supported value of Saturation for this Device
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
hue	number	yes		Hue angle as defined by the CIECAM02 model definition
step	multiple types: see schema		Read Only	Step value across the defined range

21899 **B.27.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/example/ColourHueSaturationResURI		get	post		

21900 **B.28 Colour RGB**

21901 **B.28.1 Introduction**

21902 This resource specifies the actual colour in the RGB space represented as an array of integers.
 21903 Each colour value is described with a Red, Green, Blue component.
 21904 These colour values are encoded as an array of integer values ([R,G,B]).
 21905 The minimum and maximum colour value per component may be described by range (from
 21906 oic.r.baseresource).

21907 When range (from oic.r.baseresource) is omitted, then the range is [0,255].
21908 Retrieves the current colour in RGB.
21909 Value is an array of integer values in the order R,G,B.
21910

21911 **B.28.2 Example URI**

21912 /ColourRGBResURI

21913 **B.28.3 Resource Type**

21914 The resource type (rt) is defined as: ['oic.r.colour.rgb'].

21915 **B.28.4 Swagger2.0 Definition**

```
21916 {  
21917   "swagger": "2.0",  
21918   "info": {  
21919     "title": "Colour RGB",  
21920     "version": "v1.1.0-20160519",  
21921     "license": {  
21922       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
21923       "x-description": "Redistribution and use in source and binary forms, with or without  
21924 modification, are permitted provided that the following conditions are met:\n      1.  
21925 Redistributions of source code must retain the above copyright notice, this list of conditions and  
21926 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
21927 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
21928 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
21929 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
21930 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
21931 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
21932 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
21933 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
21934 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
21935 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
21936 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
21937 OF SUCH DAMAGE.\n    }  
21938   },  
21939   "schemes": ["http"],  
21940   "consumes": ["application/json"],  
21941   "produces": ["application/json"],  
21942   "paths": {  
21943     "/ColourRGBResURI" : {  
21944       "get": {  
21945         "description": "This resource specifies the actual colour in the RGB space represented as  
21946 an array of integers.\nEach colour value is described with a Red, Green, Blue component.\nThese  
21947 colour values are encoded as an array of integer values ([R,G,B]).\nThe minimum and maximum colour  
21948 value per component may be described by range (from oic.r.baseresource).\nWhen range (from  
21949 oic.r.baseresource) is omitted, then the range is [0,255].\nRetrieves the current colour in  
21950 RGB.\nValue is an array of integer values in the order R,G,B.\n",  
21951         "parameters": [  
21952           { "$ref": "#/parameters/interface" }  
21953         ],  
21954         "responses": {  
21955           "200": {  
21956             "description": "",  
21957             "x-example":  
21958               {  
21959                 "rt": ["oic.r.colour.rgb"],  
21960                 "id": "unique_example_id",  
21961                 "rgbValue": [255,255,255],  
21962                 "range": [0,255]  
21963               }  
21964             },  
21965             "schema": { "$ref": "#/definitions/ColourRGB" }  
21966           }  
21967         }  
21968       }  
21969     },  
21970     "post": {  
21971       "description": "Sets the current colourRGB value\n",
```

```

21972     "parameters": [
21973         { "$ref": "#/parameters/interface" },
21974         {
21975             "name": "body",
21976             "in": "body",
21977             "required": true,
21978             "schema": { "$ref": "#/definitions/ColourRGB" },
21979             "x-example":
21980                 {
21981                     "id": "unique_example_id",
21982                     "rgbValue": [255,0,0]
21983                 }
21984         }
21985     ],
21986     "responses": {
21987         "200": {
21988             "description": "",
21989             "x-example":
21990                 {
21991                     "id": "unique_example_id",
21992                     "rgbValue": [255,0,0]
21993                 }
21994             ,
21995             "schema": { "$ref": "#/definitions/ColourRGB" }
21996         }
21997     }
21998 }
21999 }
22000 },
22001 "parameters": {
22002     "interface": {
22003         "in": "query",
22004         "name": "if",
22005         "type": "string",
22006         "enum": ["oic.if.a", "oic.if.baseline"]
22007     }
22008 },
22009 "definitions": {
22010     "ColourRGB":
22011         {
22012             "properties": {
22013                 "id": {
22014                     "description": "Instance ID of this specific resource",
22015                     "maxLength": 64,
22016                     "readOnly": true,
22017                     "type": "string"
22018                 },
22019                 "if": {
22020                     "description": "The interface set supported by this resource",
22021                     "items": {
22022                         "enum": [
22023                             "oic.if.baseline",
22024                             "oic.if.ll",
22025                             "oic.if.b",
22026                             "oic.if.lb",
22027                             "oic.if.rw",
22028                             "oic.if.r",
22029                             "oic.if.a",
22030                             "oic.if.s"
22031                         ],
22032                         "type": "string"
22033                     },
22034                     "minItems": 1,
22035                     "readOnly": true,
22036                     "type": "array"
22037                 },
22038                 "n": {
22039                     "description": "Friendly name of the resource",
22040                     "maxLength": 64,
22041                     "readOnly": true,
22042                     "type": "string"

```

```

22043     },
22044     "precision": {
22045         "description": "Accuracy granularity of the exposed value",
22046         "readOnly": true,
22047         "type": "number"
22048     },
22049     "range": {
22050         "description": "The valid range for the value Property",
22051         "items": {
22052             "anyOf": [
22053                 {
22054                     "type": "number"
22055                 },
22056                 {
22057                     "type": "integer"
22058                 }
22059             ]
22060         },
22061         "maxItems": 2,
22062         "minItems": 2,
22063         "readOnly": true,
22064         "type": "array"
22065     },
22066     "rgbValue": {
22067         "description": "RGB value; the first item is the R, second the G, third the B.",
22068         "items": {
22069             "type": "integer"
22070         },
22071         "maxItems": 3,
22072         "minItems": 3,
22073         "type": "array"
22074     },
22075     "rt": {
22076         "description": "Resource Type",
22077         "items": {
22078             "maxLength": 64,
22079             "type": "string"
22080         },
22081         "minItems": 1,
22082         "readOnly": true,
22083         "type": "array"
22084     },
22085     "step": {
22086         "anyOf": [
22087             {
22088                 "type": "integer"
22089             },
22090             {
22091                 "type": "number"
22092             }
22093         ],
22094         "description": "Step value across the defined range",
22095         "readOnly": true
22096     },
22097     "value": {
22098         "anyOf": [
22099             {
22100                 "type": "array"
22101             },
22102             {
22103                 "type": "string"
22104             },
22105             {
22106                 "type": "boolean"
22107             },
22108             {
22109                 "type": "integer"
22110             },
22111             {
22112                 "type": "number"
22113             }

```

```

22114         {
22115             "type": "object"
22116         }
22117     ],
22118     "description": "The value sensed or actuated by this Resource"
22119 }
22120 },
22121 "required": [
22122     "rgbValue"
22123 ],
22124 "type": "object"
22125 }
22126 }
22127 }
22128 }
22129 }

```

22130 **B.28.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
rgbValue	array: see schema	yes		RGB value; the first item is the R, second the G, third the B.
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

22131 **B.28.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ColourRGBResURI		get	post		

22132 **B.29 Consumable**

22133 **B.29.1 Introduction**

22134 This resource specifies a thing that can be consumed such as filter material, printer toner etc
22135 The type is an enumeration defining the thing being consumed as defined by the Smart Home
22136 Device Specification
22137 The remaining is an integer capturing the percentatge remaining life
22138 The orderpercentage is an integer capturing the percentage life at which replacement or

22139 replenishment is recommended by the manufacturer
22140 The url is a string containing a URL at which further information may be obtained with respect to
22141 the consumable
22142

22143 **B.29.2 Example URI**

22144 /ConsumableResURI

22145 **B.29.3 Resource Type**

22146 The resource type (rt) is defined as: ['oic.r.consumable'].

22147 **B.29.4 Swagger2.0 Definition**

```
22148 {  
22149   "swagger": "2.0",  
22150   "info": {  
22151     "title": "Consumable",  
22152     "version": "OCF-v1.0.0-20160620",  
22153     "license": {  
22154       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
22155       "x-description": "Redistribution and use in source and binary forms, with or without  
22156 modification, are permitted provided that the following conditions are met:\n      1.  
22157 Redistributions of source code must retain the above copyright notice, this list of conditions and  
22158 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
22159 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
22160 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
22161 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
22162 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
22163 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
22164 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
22165 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
22166 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
22167 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
22168 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
22169 OF SUCH DAMAGE.\n    }  
22170   },  
22171   },  
22172   "schemes": ["http"],  
22173   "consumes": ["application/json"],  
22174   "produces": ["application/json"],  
22175   "paths": {  
22176     "/ConsumableResURI" : {  
22177       "get": {  
22178         "description": "This resource specifies a thing that can be consumed such as filter  
22179 material, printer toner etc\nThe type is an enumeration defining the thing being consumed as  
22180 defined by the Smart Home Device Specification\nThe remaining is an integer capturing the  
22181 percentatge remaining life\nThe orderpercentage is an integer capturing the percentage life at  
22182 which replacement or replenishment is recommended by the manufacturer\nThe url is a string  
22183 containing a URL at which further information may be obtained with respect to the consumable\n",  
22184         "parameters": [  
22185           { "$ref": "#/parameters/interface" }  
22186         ],  
22187         "responses": {  
22188           "200": {  
22189             "description": "",  
22190             "x-example":  
22191               {  
22192                 "rt": ["oic.r.consumable"],  
22193                 "id": "unique_example_id",  
22194                 "typeofconsumable": "tonerBlack",  
22195                 "remaining": 20,  
22196                 "orderpercentage": 10,  
22197                 "url": "http://myreorderURL"  
22198               }  
22199             },  
22200           "schema": { "$ref": "#/definitions/consumable" }  
22201         }  
22202       }  
22203     }  
  }
```

```

22204     }
22205   },
22206   "parameters": {
22207     "interface" : {
22208       "in" : "query",
22209       "name" : "if",
22210       "type" : "string",
22211       "enum" : ["oic.if.s", "oic.if.baseline"]
22212     }
22213   },
22214   "definitions": {
22215     "consumable" :
22216     {
22217       "properties": {
22218         "id": {
22219           "description": "Instance ID of this specific resource",
22220           "maxLength": 64,
22221           "readOnly": true,
22222           "type": "string"
22223         },
22224         "if": {
22225           "description": "The interface set supported by this resource",
22226           "items": {
22227             "enum": [
22228               "oic.if.baseline",
22229               "oic.if.ll",
22230               "oic.if.b",
22231               "oic.if.lb",
22232               "oic.if.rw",
22233               "oic.if.r",
22234               "oic.if.a",
22235               "oic.if.s"
22236             ],
22237             "type": "string"
22238           },
22239           "minItems": 1,
22240           "readOnly": true,
22241           "type": "array"
22242         },
22243         "n": {
22244           "description": "Friendly name of the resource",
22245           "maxLength": 64,
22246           "readOnly": true,
22247           "type": "string"
22248         },
22249         "orderpercentage": {
22250           "description": "Percentage at which re-ordering is recommended by the manufacturer",
22251           "maximum": 100,
22252           "minimum": 0,
22253           "readOnly": true,
22254           "type": "integer"
22255         },
22256         "precision": {
22257           "description": "Accuracy granularity of the exposed value",
22258           "readOnly": true,
22259           "type": "number"
22260         },
22261         "range": {
22262           "description": "The valid range for the value Property",
22263           "items": {
22264             "anyOf": [
22265               {
22266                 "type": "number"
22267               },
22268               {
22269                 "type": "integer"
22270               }
22271             ]
22272           },
22273           "maxItems": 2,
22274           "minItems": 2,

```

```

22275         "readOnly": true,
22276         "type": "array"
22277     },
22278     "remaining": {
22279         "description": "Percentage remaining lifespan.",
22280         "maximum": 100,
22281         "minimum": 0,
22282         "readOnly": true,
22283         "type": "integer"
22284     },
22285     "rt": {
22286         "description": "Resource Type",
22287         "items": {
22288             "maxLength": 64,
22289             "type": "string"
22290         },
22291         "minItems": 1,
22292         "readOnly": true,
22293         "type": "array"
22294     },
22295     "step": {
22296         "anyOf": [
22297             {
22298                 "type": "integer"
22299             },
22300             {
22301                 "type": "number"
22302             }
22303         ],
22304         "description": "Step value across the defined range",
22305         "readOnly": true
22306     },
22307     "typeofconsumable": {
22308         "description": "Thing that is being consumed.",
22309         "readOnly": true,
22310         "type": "string"
22311     },
22312     "url": {
22313         "description": "URL at which additional ordering information may be found.",
22314         "format": "uri",
22315         "readOnly": true,
22316         "type": "string"
22317     },
22318     "value": {
22319         "anyOf": [
22320             {
22321                 "type": "array"
22322             },
22323             {
22324                 "type": "string"
22325             },
22326             {
22327                 "type": "boolean"
22328             },
22329             {
22330                 "type": "integer"
22331             },
22332             {
22333                 "type": "number"
22334             },
22335             {
22336                 "type": "object"
22337             }
22338         ],
22339         "description": "The value sensed or actuated by this Resource"
22340     }
22341 },
22342 "required": [
22343     "typeofconsumable",
22344     "remaining"
22345 ],

```



```

22346     "type": "object"
22347   }
22348 }
22349 }
22350 }
22351

```

22352 **B.29.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
remaining	integer	yes	Read Only	Percentage remaining lifespan.
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
typeofconsumable	string	yes	Read Only	Thing that is being consumed.
orderpercentage	integer		Read Only	Percentage at which re-ordering is recommended by the manufacturer
n	string		Read Only	Friendly name of the resource
url	string		Read Only	URL at which additional ordering information may be found.

22353 **B.29.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ConsumableResURI		get			

22354 **B.30 Consumables**

22355 **B.30.1 Introduction**

22356 This resource specifies things that can be consumed such as filter material, printer toner etc.
22357 The resource is a collection of instances of oic.r.consumable detailing the individual consumed
22358 items
22359 supportedconsumables is the set of consumable types that this instance of the Resource supports
22360

22361 **B.30.2 Example URI**

22362 /ConsumablesBaselineResURI

22363 **B.30.3 Resource Type**

22364 The resource type (rt) is defined as: ['oic.r.consumablecollection', 'oic.wk.col'].

22365 **B.30.4 Swagger2.0 Definition**

```
22366 {
22367   "swagger": "2.0",
22368   "info": {
22369     "title": "Consumables",
22370     "version": "OCF-v1.0.0-20160620",
22371     "license": {
22372       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
22373       "x-description": "Redistribution and use in source and binary forms, with or without
22374 modification, are permitted provided that the following conditions are met:\n      1.
22375 Redistributions of source code must retain the above copyright notice, this list of conditions and
22376 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
22377 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
22378 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
22379 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
22380 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
22381 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
22382 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
22383 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
22384 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
22385 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
22386 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
22387 OF SUCH DAMAGE.\n"
22388   }
22389 },
22390 "schemes": ["http"],
22391 "consumes": ["application/json"],
22392 "produces": ["application/json"],
22393 "paths": {
22394   "/ConsumablesLLResURI" : {
22395     "get": {
22396       "description": "This resource specifies things that can be consumed such as filter
22397 material, printer toner etc\nThe resource is a collection of instances of oic.r.consumable
22398 detailing the individual consumed items\nsupportedconsumables is the set of consumable types that
22399 this instance of the Resource supports\n",
22400       "parameters": [
22401         ],
22402       "responses": {
22403         "200": {
22404           "description": "",
22405           "x-example":
22406             [
22407               {
22408                 "href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
22409 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22410               {
22411                 "href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
22412 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22413               {
22414                 "href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
22415 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22416               {
22417                 "href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
22418 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
22419             ]
22420         }
22421       }
22422     }
22423   }
22424 }
```

```

22417         "schema": { "$ref": "#/definitions/consumables-ll" }
22418     }
22419 }
22420 }
22421 },
22422 "/ConsumablesBaselineResURI" : {
22423     "get": {
22424         "description": "This resource specifies things that can be consumed such as filter
22425 material, printer toner etc\nThe resource is a collection of instances of oic.r.consumable
22426 detailing the individual consumed items\nsupportedconsumables is the set of consumable types that
22427 this instance of the Resource supports\n",
22428         "parameters": [
22429             ],
22430         "responses": {
22431             "200": {
22432                 "description": "",
22433                 "x-example":
22434                 {
22435                     "rt": ["oic.r.consumablecollection","oic.wk.col"],
22436                     "id": "unique_example_id",
22437                     "rts": ["oic.r.consumable","oic.r.value.conditional"],
22438                     "supportedconsumables": ["tonerBlack","tonerCyan","tonerMagenta","tonerYellow"],
22439                     "links": [
22440                         { "href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
22441 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22442                         { "href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
22443 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22444                         { "href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
22445 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
22446                         { "href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
22447 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
22448                     ]
22449                 }
22450             },
22451             "schema": { "$ref": "#/definitions/consumables" }
22452         }
22453     }
22454 }
22455 },
22456 "parameters": {
22457     "interface-ll" : {
22458         "in" : "query",
22459         "name" : "if",
22460         "type" : "string",
22461         "enum" : ["oic.if.ll"]
22462     },
22463     "interface-baseline" : {
22464         "in" : "query",
22465         "name" : "if",
22466         "type" : "string",
22467         "enum" : ["oic.if.baseline"]
22468     },
22469     "interface-all" : {
22470         "in" : "query",
22471         "name" : "if",
22472         "type" : "string",
22473         "enum" : ["oic.if.ll", "oic.if.baseline"]
22474     }
22475 },
22476 "definitions": {
22477     "consumables-ll" : {
22478         "title" :
22479             "Consumables Collection Link List Schema (auto merged)"
22480     },
22481     "items" :
22482     {
22483         {
22484             "$ref": "#/definitions/oic.oic-link"
22485         }
22486     },
22487     "type" :

```

```

22488         "array"
22489     }
22490 }
22491 ,
22492 "consumables" : {
22493     "properties" : {
22494         "rt" :
22495         {
22496             "items" : {
22497                 "enum" : [
22498                     "oic.r.consumablecollection",
22499                     "oic.wk.col"
22500                 ]
22501             },
22502             "maxItems" : 2,
22503             "minItems" : 2,
22504             "type" : "array",
22505             "uniqueItems" : true
22506         },
22507
22508         "supportedconsumables" :
22509         {
22510             "description" : "Array of possible consumables the device measures.",
22511             "items" : {
22512                 "type" : "string"
22513             },
22514             "readOnly" : true,
22515             "type" : "array"
22516         },
22517
22518         "links" :
22519         {
22520             "description" : "A set of simple or individual OIC Links.",
22521             "items" : {
22522                 "properties" : {
22523                     "anchor" : {
22524                         "description" : "This is used to override the context URI e.g. override the URI of
22525 the containing collection.",
22526                         "format" : "uri",
22527                         "maxLength" : 256,
22528                         "type" : "string"
22529                     },
22530                     "di" : {
22531                         "description" : "The Device ID formatted according to IETF RFC 4122.",
22532                         "pattern" : "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
22533 9]{12}$",
22534                         "type" : "string"
22535                     },
22536                     "eps" : {
22537                         "description" : "the Endpoint information of the target Resource",
22538                         "items" : {
22539                             "properties" : {
22540                                 "ep" : {
22541                                     "description" : "Transport Protocol Suite + Endpoint Locator",
22542                                     "format" : "uri",
22543                                     "type" : "string"
22544                                 },
22545                                 "pri" : {
22546                                     "description" : "The priority among multiple Endpoints",
22547                                     "minimum" : 1,
22548                                     "type" : "integer"
22549                                 }
22550                             }
22551                         },
22552                         "type" : "object"
22553                     },
22554                     "type" : "array"
22555                 },
22556                 "href" : {
22557                     "description" : "This is the target URI, it can be specified as a Relative Reference
or fully-qualified URI.",
22558                     "format" : "uri",

```

```

22559         "maxLength": 256,
22560         "type": "string"
22561     },
22562     "if": {
22563         "description": "The interface set supported by this resource",
22564         "items": {
22565             "enum": [
22566                 "oic.if.baseline",
22567                 "oic.if.ll",
22568                 "oic.if.b",
22569                 "oic.if.rw",
22570                 "oic.if.r",
22571                 "oic.if.a",
22572                 "oic.if.s"
22573             ],
22574             "type": "string"
22575         },
22576         "minItems": 1,
22577         "type": "array"
22578     },
22579     "ins": {
22580         "description": "The instance identifier for this web link in an array of web links
- used in collections",
22581         "type": "integer"
22582     },
22583     "p": {
22584         "description": "Specifies the framework policies on the Resource referenced by the
target URI",
22585         "properties": {
22586             "bm": {
22587                 "description": "Specifies the framework policies on the Resource referenced by
the target URI for e.g. observable and discoverable",
22588                 "type": "integer"
22589             }
22590         },
22591         "required": [
22592             "bm"
22593         ],
22594         "type": "object"
22595     },
22596     "rel": {
22597         "description": "The relation of the target URI referenced by the link to the
context URI",
22598         "oneOf": [
22599             {
22600                 "default": [
22601                     "hosts"
22602                 ],
22603                 "items": {
22604                     "maxLength": 64,
22605                     "type": "string"
22606                 },
22607                 "minItems": 1,
22608                 "type": "array"
22609             },
22610             {
22611                 "default": "hosts",
22612                 "maxLength": 64,
22613                 "type": "string"
22614             }
22615         ]
22616     },
22617     "rt": {
22618         "description": "Resource Type of the Resource",
22619         "items": {
22620             "maxLength": 64,
22621             "type": "string"
22622         },
22623         "minItems": 1,
22624         "type": "array"
22625     },
22626 }

```

```

22630         "title": {
22631             "description": "A title for the link relation. Can be used by the UI to provide a
22632 context.",
22633             "maxLength": 64,
22634             "type": "string"
22635         },
22636         "type": {
22637             "default": "application/cbor",
22638             "description": "A hint at the representation of the resource referenced by the
22639 target URI. This represents the media types that are used for both accepting and emitting.",
22640             "items": {
22641                 "maxLength": 64,
22642                 "type": "string"
22643             },
22644             "minItems": 1,
22645             "type": "array"
22646         }
22647     },
22648     "required": [
22649         "href",
22650         "rt",
22651         "if"
22652     ],
22653     "type": "object"
22654 },
22655 "type": "array"
22656 },
22657
22658 "n" :
22659 {
22660     "description": "Friendly name of the resource",
22661     "maxLength": 64,
22662     "readOnly": true,
22663     "type": "string"
22664 },
22665
22666 "rts" :
22667 {
22668     "items": {
22669         "anyOf": [
22670             {
22671                 "enum": [
22672                     "oic.r.consumable",
22673                     "oic.r.value.conditional"
22674                 ]
22675             },
22676             {
22677                 "enum": [
22678                     "oic.r.consumable"
22679                 ]
22680             }
22681         ]
22682     },
22683     "maxItems": 2,
22684     "minItems": 1,
22685     "type": "array",
22686     "uniqueItems": true
22687 },
22688
22689 "id" :
22690 {
22691     "description": "Instance ID of this specific resource",
22692     "maxLength": 64,
22693     "readOnly": true,
22694     "type": "string"
22695 },
22696
22697 "if" :
22698 {
22699     "description": "The interface set supported by this resource",
22700     "items": {

```

```

22701         "enum": [
22702             "oic.if.baseline",
22703             "oic.if.ll",
22704             "oic.if.b",
22705             "oic.if.lb",
22706             "oic.if.rw",
22707             "oic.if.r",
22708             "oic.if.a",
22709             "oic.if.s"
22710         ],
22711         "type": "string"
22712     },
22713     "minItems": 1,
22714     "readOnly": true,
22715     "type": "array"
22716 }
22717 }
22718 }
22719 }
22720 , "oic.collection.links.arrayoflinks" :
22721 {
22722     "properties": {
22723         "links": {
22724             "description": "A set of simple or individual OIC Links.",
22725             "items": {
22726                 "properties": {
22727                     "anchor": {
22728                         "description": "This is used to override the context URI e.g. override the URI of
22729 the containing collection.",
22730                         "format": "uri",
22731                         "maxLength": 256,
22732                         "type": "string"
22733                     },
22734                     "di": {
22735                         "description": "The Device ID formatted according to IETF RFC 4122.",
22736                         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
22737 9]{12}$",
22738                         "type": "string"
22739                     },
22740                     "eps": {
22741                         "description": "the Endpoint information of the target Resource",
22742                         "items": {
22743                             "properties": {
22744                                 "ep": {
22745                                     "description": "Transport Protocol Suite + Endpoint Locator",
22746                                     "format": "uri",
22747                                     "type": "string"
22748                                 },
22749                                 "pri": {
22750                                     "description": "The priority among multiple Endpoints",
22751                                     "minimum": 1,
22752                                     "type": "integer"
22753                                 }
22754                             },
22755                             "type": "object"
22756                         },
22757                         "type": "array"
22758                     },
22759                     "href": {
22760                         "description": "This is the target URI, it can be specified as a Relative Reference
22761 or fully-qualified URI.",
22762                         "format": "uri",
22763                         "maxLength": 256,
22764                         "type": "string"
22765                     },
22766                     "if": {
22767                         "description": "The interface set supported by this resource",
22768                         "items": {
22769                             "enum": [
22770                                 "oic.if.baseline",
22771                                 "oic.if.ll",

```

```

22772         "oic.if.b",
22773         "oic.if.rw",
22774         "oic.if.r",
22775         "oic.if.a",
22776         "oic.if.s"
22777     ],
22778     "type": "string"
22779 },
22780 "minItems": 1,
22781 "type": "array"
22782 },
22783 "ins": {
22784     "description": "The instance identifier for this web link in an array of web links
- used in collections",
22785     "type": "integer"
22786 },
22787 "p": {
22788     "description": "Specifies the framework policies on the Resource referenced by the
target URI",
22789     "properties": {
22790         "bm": {
22791             "description": "Specifies the framework policies on the Resource referenced by
the target URI for e.g. observable and discoverable",
22792             "type": "integer"
22793         }
22794     },
22795     "required": [
22796         "bm"
22797     ],
22798     "type": "object"
22799 },
22800 "rel": {
22801     "description": "The relation of the target URI referenced by the link to the
context URI",
22802     "oneOf": [
22803         {
22804             "default": [
22805                 "hosts"
22806             ],
22807             "items": {
22808                 "maxLength": 64,
22809                 "type": "string"
22810             },
22811             "minItems": 1,
22812             "type": "array"
22813         },
22814         {
22815             "default": "hosts",
22816             "maxLength": 64,
22817             "type": "string"
22818         }
22819     ]
22820 },
22821 "rt": {
22822     "description": "Resource Type of the Resource",
22823     "items": {
22824         "maxLength": 64,
22825         "type": "string"
22826     },
22827     "minItems": 1,
22828     "type": "array"
22829 },
22830 "title": {
22831     "description": "A title for the link relation. Can be used by the UI to provide a
context.",
22832     "maxLength": 64,
22833     "type": "string"
22834 },
22835 "type": {
22836     "default": "application/cbor",
22837     "description": "A hint at the representation of the resource referenced by the

```



```

22843 target URI. This represents the media types that are used for both accepting and emitting.",
22844     "items": {
22845         "maxLength": 64,
22846         "type": "string"
22847     },
22848     "minItems": 1,
22849     "type": "array"
22850 }
22851 },
22852 "required": [
22853     "href",
22854     "rt",
22855     "if"
22856 ],
22857 "type": "object"
22858 },
22859 "type": "array"
22860 }
22861 }
22862 }
22863
22864 , "oic.collection.properties" :
22865 {
22866     "description": "A collection is a set of links along with additional properties to describe
22867 the collection itself",
22868     "properties": {
22869         "rts": {
22870             "$ref": "#/definitions/oic.core/properties/rt",
22871             "description": "The list of allowable resource types (for Target and anchors) in links
22872 included in the collection"
22873         }
22874     },
22875     "type": "object"
22876 }
22877
22878 , "oic.core" :
22879 {
22880     "properties": {
22881         "id": {
22882             "description": "Instance ID of this specific resource",
22883             "maxLength": 64,
22884             "readOnly": true,
22885             "type": "string"
22886         },
22887         "if": {
22888             "description": "The interface set supported by this resource",
22889             "items": {
22890                 "enum": [
22891                     "oic.if.baseline",
22892                     "oic.if.ll",
22893                     "oic.if.b",
22894                     "oic.if.lb",
22895                     "oic.if.rw",
22896                     "oic.if.r",
22897                     "oic.if.a",
22898                     "oic.if.s"
22899                 ],
22900                 "type": "string"
22901             },
22902             "minItems": 1,
22903             "readOnly": true,
22904             "type": "array"
22905         },
22906         "n": {
22907             "description": "Friendly name of the resource",
22908             "maxLength": 64,
22909             "readOnly": true,
22910             "type": "string"
22911         },
22912         "rt": {
22913             "description": "Resource Type",

```

```

22914         "items": {
22915             "maxLength": 64,
22916             "type": "string"
22917         },
22918         "minItems": 1,
22919         "readOnly": true,
22920         "type": "array"
22921     }
22922 },
22923     "type": "object"
22924 }
22925
22926 , "consumablecollection-11" :
22927 {
22928     "items": {
22929         "$ref": "#/definitions/oic.oic-link"
22930     },
22931     "type": "array"
22932 }
22933
22934 , "oic.r.consumablecollection" :
22935 {
22936     "properties": {
22937         "rt": {
22938             "items": {
22939                 "enum": [
22940                     "oic.r.consumablecollection",
22941                     "oic.wk.col"
22942                 ]
22943             },
22944             "maxItems": 2,
22945             "minItems": 2,
22946             "type": "array",
22947             "uniqueItems": true
22948         },
22949         "rts": {
22950             "items": {
22951                 "anyOf": [
22952                     {
22953                         "enum": [
22954                             "oic.r.consumable",
22955                             "oic.r.value.conditional"
22956                         ]
22957                     },
22958                     {
22959                         "enum": [
22960                             "oic.r.consumable"
22961                         ]
22962                     }
22963                 ]
22964             },
22965             "maxItems": 2,
22966             "minItems": 1,
22967             "type": "array",
22968             "uniqueItems": true
22969         },
22970         "supportedconsumables": {
22971             "description": "Array of possible consumables the device measures.",
22972             "items": {
22973                 "type": "string"
22974             },
22975             "readOnly": true,
22976             "type": "array"
22977         }
22978     },
22979     "type": "object"
22980 }
22981
22982 , "oic.oic-link" :
22983 {
22984     "properties": {

```

```

22985     "anchor": {
22986         "description": "This is used to override the context URI e.g. override the URI of the
22987 containing collection.",
22988         "format": "uri",
22989         "maxLength": 256,
22990         "type": "string"
22991     },
22992     "di": {
22993         "description": "The Device ID formatted according to IETF RFC 4122.",
22994         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
22995 9]{12}$",
22996         "type": "string"
22997     },
22998     "eps": {
22999         "description": "the Endpoint information of the target Resource",
23000         "items": {
23001             "properties": {
23002                 "ep": {
23003                     "description": "Transport Protocol Suite + Endpoint Locator",
23004                     "format": "uri",
23005                     "type": "string"
23006                 },
23007                 "pri": {
23008                     "description": "The priority among multiple Endpoints",
23009                     "minimum": 1,
23010                     "type": "integer"
23011                 }
23012             },
23013             "type": "object"
23014         },
23015         "type": "array"
23016     },
23017     "href": {
23018         "description": "This is the target URI, it can be specified as a Relative Reference or
23019 fully-qualified URI.",
23020         "format": "uri",
23021         "maxLength": 256,
23022         "type": "string"
23023     },
23024     "if": {
23025         "description": "The interface set supported by this resource",
23026         "items": {
23027             "enum": [
23028                 "oic.if.baseline",
23029                 "oic.if.ll",
23030                 "oic.if.b",
23031                 "oic.if.rw",
23032                 "oic.if.r",
23033                 "oic.if.a",
23034                 "oic.if.s"
23035             ],
23036             "type": "string"
23037         },
23038         "minItems": 1,
23039         "type": "array"
23040     },
23041     "ins": {
23042         "description": "The instance identifier for this web link in an array of web links - used
23043 in collections",
23044         "type": "integer"
23045     },
23046     "p": {
23047         "description": "Specifies the framework policies on the Resource referenced by the target
23048 URI",
23049         "properties": {
23050             "bm": {
23051                 "description": "Specifies the framework policies on the Resource referenced by the
23052 target URI for e.g. observable and discoverable",
23053                 "type": "integer"
23054             }
23055         },

```

```

23056         "required": [
23057             "bm"
23058         ],
23059         "type": "object"
23060     },
23061     "rel": {
23062         "description": "The relation of the target URI referenced by the link to the context
23063 URI",
23064         "oneOf": [
23065             {
23066                 "default": [
23067                     "hosts"
23068                 ],
23069                 "items": {
23070                     "maxLength": 64,
23071                     "type": "string"
23072                 },
23073                 "minItems": 1,
23074                 "type": "array"
23075             },
23076             {
23077                 "default": "hosts",
23078                 "maxLength": 64,
23079                 "type": "string"
23080             }
23081         ]
23082     },
23083     "rt": {
23084         "description": "Resource Type of the Resource",
23085         "items": {
23086             "maxLength": 64,
23087             "type": "string"
23088         },
23089         "minItems": 1,
23090         "type": "array"
23091     },
23092     "title": {
23093         "description": "A title for the link relation. Can be used by the UI to provide a
23094 context.",
23095         "maxLength": 64,
23096         "type": "string"
23097     },
23098     "type": {
23099         "default": "application/cbor",
23100         "description": "A hint at the representation of the resource referenced by the target
23101 URI. This represents the media types that are used for both accepting and emitting.",
23102         "items": {
23103             "maxLength": 64,
23104             "type": "string"
23105         },
23106         "minItems": 1,
23107         "type": "array"
23108     }
23109 },
23110 "required": [
23111     "href",
23112     "rt",
23113     "if"
23114 ],
23115 "type": "object"
23116 }
23117 }
23118 }
23119 }
23120
23121

```

B.30.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
ins	multiple types: see schema			The instance identifier for this

				web link in an array of web links - used in collections
rt	array: see schema	yes		Resource Type
rel	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
if	array: see schema	yes		The interface set supported by this resource
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
type	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
eps	array: see schema			the Endpoint information of the target Resource
title	string			A title for the link relation. Can be used by the UI to provide a context
di	string			Unique identifier for device (UUID)
href	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI. Relative

				Reference should be used along with the di parameter to make it unique.
links	multiple types: see schema			All forms of links in a collection
rt	array: see schema	yes		
rts	array: see schema		Read Only	Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
supportedconsumables	array: see schema		Read Only	Array of possible consumables the device measures.
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res

23122

B.30.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ConsumablesBaselineResURI		get			

23123 **B.31 Contact Sensor**

23124 **B.31.1 Introduction**

23125 This resource describes whether a contact sensor has been tripped or not.
23126 Typical use case is in Security Systems detecting window or door open.
23127 The value is a boolean.
23128 A value of 'true' means that contact has been broken (open).
23129 A value of 'false' means that contact is in place (closed).
23130

23131 **B.31.2 Example URI**

23132 /ContactResURI

23133 **B.31.3 Resource Type**

23134 The resource type (rt) is defined as: ['oic.r.sensor.contact'].

23135 **B.31.4 Swagger2.0 Definition**

```
23136 {
23137   "swagger": "2.0",
23138   "info": {
23139     "title": "Contact Sensor",
23140     "version": "v1.1.0-20160519",
23141     "license": {
23142       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
23143       "x-description": "Redistribution and use in source and binary forms, with or without
23144 modification, are permitted provided that the following conditions are met:\n      1.
23145 Redistributions of source code must retain the above copyright notice, this list of conditions and
23146 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
23147 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
23148 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
23149 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
23150 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
23151 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
23152 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
23153 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
23154 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
23155 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
23156 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
23157 OF SUCH DAMAGE.\n"
23158     }
23159   },
23160   "schemes": ["http"],
23161   "consumes": ["application/json"],
23162   "produces": ["application/json"],
23163   "paths": {
23164     "/ContactResURI" : {
23165       "get": {
23166         "description": "This resource describes whether a contact sensor has been tripped or
23167 not.\nTypical use case is in Security Systems detecting window or door open.\nThe value is a
23168 boolean.\nA value of 'true' means that contact has been broken (open).\nA value of 'false' means
23169 that contact is in place (closed).\n",
23170         "parameters": [
23171           {"$ref": "#/parameters/interface"}
23172         ],
23173         "responses": {
23174           "200": {
23175             "description": "",
23176             "x-example":
23177             {
23178               "rt": ["oic.r.sensor.contact"],
23179               "id": "unique_example_id",
23180               "value": true
23181             }
23182           },
23183           "schema": { "$ref": "#/definitions/Contact" }
23184         }
23185       }
23186     }
23187   }
23188 }
```

```

23185     }
23186   }
23187 }
23188 },
23189 "parameters": {
23190   "interface": {
23191     "in": "query",
23192     "name": "if",
23193     "type": "string",
23194     "enum": ["oic.if.s", "oic.if.baseline"]
23195   }
23196 },
23197 "definitions": {
23198   "Contact": {
23199     {
23200     "properties": {
23201       "id": {
23202         "description": "Instance ID of this specific resource",
23203         "maxLength": 64,
23204         "readOnly": true,
23205         "type": "string"
23206       },
23207       "if": {
23208         "description": "The interface set supported by this resource",
23209         "items": {
23210           "enum": [
23211             "oic.if.baseline",
23212             "oic.if.ll",
23213             "oic.if.b",
23214             "oic.if.lb",
23215             "oic.if.rw",
23216             "oic.if.r",
23217             "oic.if.a",
23218             "oic.if.s"
23219           ],
23220           "type": "string"
23221         },
23222         "minItems": 1,
23223         "readOnly": true,
23224         "type": "array"
23225       },
23226       "n": {
23227         "description": "Friendly name of the resource",
23228         "maxLength": 64,
23229         "readOnly": true,
23230         "type": "string"
23231       },
23232       "precision": {
23233         "description": "Accuracy granularity of the exposed value",
23234         "readOnly": true,
23235         "type": "number"
23236       },
23237       "range": {
23238         "description": "The valid range for the value Property",
23239         "items": {
23240           "anyOf": [
23241             {
23242               "type": "number"
23243             },
23244             {
23245               "type": "integer"
23246             }
23247           ]
23248         },
23249         "maxItems": 2,
23250         "minItems": 2,
23251         "readOnly": true,
23252         "type": "array"
23253       },
23254       "rt": {
23255         "description": "Resource Type",

```



```

23256         "items": {
23257             "maxLength": 64,
23258             "type": "string"
23259         },
23260         "minItems": 1,
23261         "readOnly": true,
23262         "type": "array"
23263     },
23264     "step": {
23265         "anyOf": [
23266             {
23267                 "type": "integer"
23268             },
23269             {
23270                 "type": "number"
23271             }
23272         ],
23273         "description": "Step value across the defined range",
23274         "readOnly": true
23275     },
23276     "value": {
23277         "description": "true = sensed, false = not sensed.",
23278         "readOnly": true,
23279         "type": "boolean"
23280     }
23281 },
23282 "required": [
23283     "value"
23284 ],
23285 "type": "object"
23286 }
23287 }
23288 }
23289 }
23290

```

23291 **B.31.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
range	array: schema see		Read Only	The valid range for the value Property
value	boolean	yes	Read Only	true = sensed, false = not sensed.
if	array: schema see		Read Only	The interface set supported by this resource
rt	array: schema see		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource

23292 **B.31.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

/ContactResURI		get		
----------------	--	-----	--	--

23293 **B.32 Delay Defrost**

23294 **B.32.1 Introduction**

23295 This resource describes the delay defrost function as defined by the US Energy Star Specifications.
 23296 See Energy Star Refrigerator Requirements Version 5 Section 4)G
 23297 (<https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf>)

23298 The status is a boolean indicating whether the function is on, if off then defrost is scheduled as
 23299 part of normal device operation.
 23300 startTime, from oir.r.time.period (mandatory) is an ISO8601 encoded start time for the interval in
 23301 which defrost shall not occur.
 23302 stopTime, from oic.r.time.period is an ISO8601 encoded stop time for the interval in which defrost
 23303 shall not occur.
 23304 interval, from oic.r.time.period with additional range restrictions is the time in minutes of the period
 23305 that starts at starttime (if not present the default is 240).
 23306 stopTime and interval are mutually exclusive; they cannot both be present in a Resource instance
 23307 Retrieves the current Delay Defrost function status
 23308
 23309
 23310

23311 **B.32.2 Example URI**

23312 /DelayDefrostResURI

23313 **B.32.3 Resource Type**

23314 The resource type (rt) is defined as: ['oic.r.delaydefrost'].

23315 **B.32.4 Swagger2.0 Definition**

```

23316 {
23317   "swagger": "2.0",
23318   "info": {
23319     "title": "Delay Defrost",
23320     "version": "OCF_v1.0.0-2016____",
23321     "license": {
23322       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
23323       "x-description": "Redistribution and use in source and binary forms, with or without
23324 modification, are permitted provided that the following conditions are met:\n      1.
23325 Redistributions of source code must retain the above copyright notice, this list of conditions and
23326 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
23327 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
23328 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
23329 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
23330 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
23331 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
23332 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
23333 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
23334 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
23335 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
23336 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
23337 OF SUCH DAMAGE.\n"
23338     }
23339   },
23340   "schemes": ["http"],
23341   "consumes": ["application/json"],
23342   "produces": ["application/json"],
23343   "paths": {
23344     "/DelayDefrostResURI" : {
23345       "get": {
23346         "description": "This resource describes the delay defrost function as defined by the US
23347 Energy Star Specifications.\nSee Energy Star Refrigerator Requirements Version 5 Section
23348 4)G\n(https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf)\n\nThe status is
23349
  
```

```

23350 a boolean indicating whether the function is on, if off then defrost is scheduled as part of normal
23351 device operation.\nstartTime, from oic.r.time.period (mandatory) is an ISO8601 encoded start time
23352 for the interval in which defrost shall not occur.\nstopTime, from oic.r.time.period is an ISO8601
23353 encoded stop time for the interval in which defrost shall not occur.\ninterval, from
23354 oic.r.time.period with additional range restrictions is the time in minutes of the period that
23355 starts at starttime (if not present the default is 240).\nstopTime and interval are mutually
23356 exclusive; they cannot both be present in a Resource instance\nRetrieves the current Delay Defrost
23357 function status\n",
23358     "parameters": [
23359         { "$ref": "#/parameters/interface" }
23360     ],
23361     "responses": {
23362         "200": {
23363             "description": "",
23364             "x-example":
23365                 {
23366                     "rt": ["oic.r.delaydefrost"],
23367                     "id": "unique_example_id",
23368                     "startTime": "06:00Z",
23369                     "status": false
23370                 }
23371             ,
23372             "schema": { "$ref": "#/definitions/DelayDefrost" }
23373         }
23374     }
23375 },
23376 "post": {
23377     "description": "Activates the desired Delay Defrost functions\n",
23378     "parameters": [
23379         { "$ref": "#/parameters/interface" },
23380         {
23381             "name": "body",
23382             "in": "body",
23383             "required": true,
23384             "schema": { "$ref": "#/definitions/DelayDefrost" },
23385             "x-example":
23386                 {
23387                     "id": "unique_example_id",
23388                     "status": true,
23389                     "startTime": "06:00Z",
23390                     "interval": 180
23391                 }
23392         }
23393     ],
23394     "responses": {
23395         "200": {
23396             "description": "Indicates that the DelayDefrost function was changed.\n\nThe new
23397 representation may be provided in the response.\n",
23398             "x-example":
23399                 {
23400                     "id": "unique_example_id",
23401                     "status": true,
23402                     "startTime": "06:00Z",
23403                     "interval": 180
23404                 }
23405             ,
23406             "schema": { "$ref": "#/definitions/DelayDefrost" }
23407         }
23408         ,
23409         "403": {
23410             "description": "Indicates the update to the time properties was rejected.\n\nReasons
23411 for rejection:\n invalid time entry\n\nThe current unchanged representation may be provided in the
23412 response.\n",
23413             "x-example":
23414                 {
23415                     "id": "unique_example_id",
23416                     "status": true,
23417                     "startTime": "06:00Z",
23418                     "interval": 180
23419                 }
23420             ,
23421             "schema": { "$ref": "#/definitions/DelayDefrost" }

```

```

23421     }
23422     }
23423   }
23424 }
23425 },
23426 "parameters": {
23427   "interface" : {
23428     "in" : "query",
23429     "name" : "if",
23430     "type" : "string",
23431     "enum" : ["oic.if.a", "oic.if.baseline"]
23432   }
23433 },
23434 "definitions": {
23435   "DelayDefrost" :
23436     {
23437     "properties": {
23438       "id": {
23439         "description": "Instance ID of this specific resource",
23440         "maxLength": 64,
23441         "readOnly": true,
23442         "type": "string"
23443       },
23444       "if": {
23445         "description": "The interface set supported by this resource",
23446         "items": {
23447           "enum": [
23448             "oic.if.baseline",
23449             "oic.if.ll",
23450             "oic.if.b",
23451             "oic.if.lb",
23452             "oic.if.rw",
23453             "oic.if.r",
23454             "oic.if.a",
23455             "oic.if.s"
23456           ],
23457           "type": "string"
23458         },
23459         "minItems": 1,
23460         "readOnly": true,
23461         "type": "array"
23462       },
23463       "interval": {
23464         "default": 240,
23465         "description": "Defrost interval as defined by Energy Star",
23466         "maximum": 1440,
23467         "minimum": 1,
23468         "type": "integer"
23469       },
23470       "n": {
23471         "description": "Friendly name of the resource",
23472         "maxLength": 64,
23473         "readOnly": true,
23474         "type": "string"
23475       },
23476       "precision": {
23477         "description": "Accuracy granularity of the exposed value",
23478         "readOnly": true,
23479         "type": "number"
23480       },
23481       "range": {
23482         "description": "The valid range for the value Property",
23483         "items": {
23484           "anyOf": [
23485             {
23486               "type": "number"
23487             },
23488             {
23489               "type": "integer"
23490             }
23491           ]

```

```

23492     },
23493     "maxItems": 2,
23494     "minItems": 2,
23495     "readOnly": true,
23496     "type": "array"
23497   },
23498   "rt": {
23499     "description": "Resource Type",
23500     "items": {
23501       "maxLength": 64,
23502       "type": "string"
23503     },
23504     "minItems": 1,
23505     "readOnly": true,
23506     "type": "array"
23507   },
23508   "startTime": {
23509     "description": "Start time for the time period",
23510     "type": "string"
23511   },
23512   "status": {
23513     "description": "Indicates whether any supported delay defrost function is active",
23514     "type": "boolean"
23515   },
23516   "step": {
23517     "anyOf": [
23518       {
23519         "type": "integer"
23520       },
23521       {
23522         "type": "number"
23523       }
23524     ],
23525     "description": "Step value across the defined range",
23526     "readOnly": true
23527   },
23528   "stopTime": {
23529     "description": "Stop time for the time period, if present interval cannot be present",
23530     "type": "string"
23531   },
23532   "value": {
23533     "anyOf": [
23534       {
23535         "type": "array"
23536       },
23537       {
23538         "type": "string"
23539       },
23540       {
23541         "type": "boolean"
23542       },
23543       {
23544         "type": "integer"
23545       },
23546       {
23547         "type": "number"
23548       },
23549       {
23550         "type": "object"
23551       }
23552     ],
23553     "description": "The value sensed or actuated by this Resource"
23554   }
23555 },
23556 "required": [
23557   "startTime",
23558   "status"
23559 ],
23560 "type": "object"
23561 }
23562

```

23563 }
 23564 }
 23565 }

23566 **B.32.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
startTime	string	yes		Start time for the time period
status	boolean	yes		Indicates whether any supported delay defrost function is active
interval	integer			Defrost interval as defined by Energy Star
stopTime	string			Stop time for the time period, if present interval cannot be present

23567 **B.32.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DelayDefrostResURI		get	post		

23568 **B.33 Dimming**

23569 **B.33.1 Introduction**

23570 This resource describes a dimming function.
 23571 The value is an integer showing the current dimming level.
 23572 If step (from oic.r.baseresource) is present then it represents the increment between dimmer
 23573 values.

23574 When range (from oic.r.baseresource) is omitted, then the range is [0,100].
 23575 A value of 0 means total dimming; a value of 100 means no dimming.
 23576 Retrieves the current dimming level.
 23577

23578 **B.33.2 Example URI**

23579 /DimmingResURI

23580 **B.33.3 Resource Type**

23581 The resource type (rt) is defined as: ['oic.r.light.dimming'].

23582 **B.33.4 Swagger2.0 Definition**

```

23583 {
23584   "swagger": "2.0",
23585   "info": {
23586     "title": "Dimming",
23587     "version": "v1.1.0-20160519",
23588     "license": {
23589       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
23590       "x-description": "Redistribution and use in source and binary forms, with or without
23591 modification, are permitted provided that the following conditions are met:\n      1.
23592 Redistributions of source code must retain the above copyright notice, this list of conditions and
23593 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
23594 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
23595 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
23596 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
23597 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
23598 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
23599 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
23600 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
23601 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
23602 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
23603 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
23604 OF SUCH DAMAGE.\n"
23605     }
23606   },
23607   "schemes": ["http"],
23608   "consumes": ["application/json"],
23609   "produces": ["application/json"],
23610   "paths": {
23611     "/DimmingResURI" : {
23612       "get": {
23613         "description": "This resource describes a dimming function.\nThe value is an integer
23614 showing the current dimming level.\nIf step (from oic.r.baseresource) is present then it represents
23615 the increment between dimmer values.\nWhen range (from oic.r.baseresource) is omitted, then the
23616 range is [0,100].\nA value of 0 means total dimming; a value of 100 means no dimming.\nRetrieves
23617 the current dimming level.\n",
23618         "parameters": [
23619           { "$ref": "#/parameters/interface" }
23620         ],
23621         "responses": {
23622           "200": {
23623             "description": "",
23624             "x-example":
23625               {
23626                 "rt": ["oic.r.light.dimming"],
23627                 "id": "unique_example_id",
23628                 "dimmingSetting": 30,
23629                 "step": 5,
23630                 "range": [0,100]
23631               }
23632           },
23633           "schema": { "$ref": "#/definitions/Dimming" }
23634         }
23635       }
23636     },
23637     "post": {
23638       "description": "Sets the desired dimming level.\n",

```

```

23639     "parameters": [
23640       { "$ref": "#/parameters/interface" },
23641       {
23642         "name": "body",
23643         "in": "body",
23644         "required": true,
23645         "schema": { "$ref": "#/definitions/Dimming" },
23646         "x-example":
23647           {
23648             "id": "unique_example_id",
23649             "dimmingSetting": 40
23650           }
23651       }
23652     ],
23653     "responses": {
23654       "200": {
23655         "description": "Indicates that the dimming was changed.\n\nThe new dimming level is
23656 provided in the response.\n\n",
23657         "x-example":
23658           {
23659             "id": "unique_example_id",
23660             "dimmingSetting": 40
23661           }
23662         ,
23663         "schema": { "$ref": "#/definitions/Dimming" }
23664       },
23665       "403": {
23666         "description": "This response is generated by the OIC Server when the client
23667 sends:\n\n An update with an out of range property value for dimmingSetting.\n\nThe server responds
23668 with the current resource representation.\n\n",
23669         "x-example":
23670           {
23671             "id": "unique_example_id",
23672             "dimmingSetting": 40
23673           }
23674         ,
23675         "schema": { "$ref": "#/definitions/Dimming" }
23676       }
23677     }
23678   }
23679 },
23680 },
23681 "parameters": {
23682   "interface": {
23683     "in": "query",
23684     "name": "if",
23685     "type": "string",
23686     "enum": ["oic.if.a", "oic.if.baseline"]
23687   }
23688 },
23689 "definitions": {
23690   "Dimming": {
23691     {
23692       "properties": {
23693         "dimmingSetting": {
23694           "description": "Current dimming value",
23695           "type": "integer"
23696         },
23697         "id": {
23698           "description": "Instance ID of this specific resource",
23699           "maxLength": 64,
23700           "readOnly": true,
23701           "type": "string"
23702         },
23703         "if": {
23704           "description": "The interface set supported by this resource",
23705           "items": {
23706             "enum": [
23707               "oic.if.baseline",
23708               "oic.if.ll",
23709               "oic.if.b",

```



```

23710         "oic.if.lb",
23711         "oic.if.rw",
23712         "oic.if.r",
23713         "oic.if.a",
23714         "oic.if.s"
23715     ],
23716     "type": "string"
23717 },
23718 "minItems": 1,
23719 "readOnly": true,
23720 "type": "array"
23721 },
23722 "n": {
23723     "description": "Friendly name of the resource",
23724     "maxLength": 64,
23725     "readOnly": true,
23726     "type": "string"
23727 },
23728 "precision": {
23729     "description": "Accuracy granularity of the exposed value",
23730     "readOnly": true,
23731     "type": "number"
23732 },
23733 "range": {
23734     "description": "The valid range for the value Property",
23735     "items": {
23736         "anyOf": [
23737             {
23738                 "type": "number"
23739             },
23740             {
23741                 "type": "integer"
23742             }
23743         ]
23744     },
23745     "maxItems": 2,
23746     "minItems": 2,
23747     "readOnly": true,
23748     "type": "array"
23749 },
23750 "rt": {
23751     "description": "Resource Type",
23752     "items": {
23753         "maxLength": 64,
23754         "type": "string"
23755     },
23756     "minItems": 1,
23757     "readOnly": true,
23758     "type": "array"
23759 },
23760 "step": {
23761     "anyOf": [
23762         {
23763             "type": "integer"
23764         },
23765         {
23766             "type": "number"
23767         }
23768     ],
23769     "description": "Step value across the defined range",
23770     "readOnly": true
23771 },
23772 "value": {
23773     "anyOf": [
23774         {
23775             "type": "array"
23776         },
23777         {
23778             "type": "string"
23779         },
23780         {

```

```

23781         "type": "boolean"
23782     },
23783     {
23784         "type": "integer"
23785     },
23786     {
23787         "type": "number"
23788     },
23789     {
23790         "type": "object"
23791     }
23792 ],
23793 "description": "The value sensed or actuated by this Resource"
23794 }
23795 },
23796 "required": [
23797     "dimmingSetting"
23798 ],
23799 "type": "object"
23800 }
23801 }
23802 }
23803 }
23804

```

23805 **B.33.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
dimmingSetting	integer	yes		Current dimming value
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property

23806 **B.33.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DimmingResURI		get	post		

23807 B.34 Door

23808 B.34.1 Introduction

23809 This resource describes the open state of the door.
23810 A door is modelled by means of openState (Open/Closed), openDuration (ISO 8601 Time), and
23811 openAlarm (boolean).
23812 For openState, the value 'Open' indicates the door is open.
23813 The value 'Closed' indicates the door is closed.
23814 The type of openDuration is an ISO 8601 Time encoded string.
23815 The openAlarm value 'true' indicates that the open alarm is active.
23816 The openAlarm value 'false' indicates that open alarm is not active.
23817 retrieves the state of the Door.

23818 B.34.2 Example URI

23819 /DoorResURI

23820 B.34.3 Resource Type

23821 The resource type (rt) is defined as: ['oic.r.door'].

23822 B.34.4 Swagger2.0 Definition

```
23823 {
23824   "swagger": "2.0",
23825   "info": {
23826     "title": "Door",
23827     "version": "v1.1.0-20160519",
23828     "license": {
23829       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
23830       "x-description": "Redistribution and use in source and binary forms, with or without
23831 modification, are permitted provided that the following conditions are met:\n      1.
23832 Redistributions of source code must retain the above copyright notice, this list of conditions and
23833 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
23834 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
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23842 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
23843 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
23844 OF SUCH DAMAGE.\n"
23845     }
23846   },
23847   "schemes": ["http"],
23848   "consumes": ["application/json"],
23849   "produces": ["application/json"],
23850   "paths": {
23851     "/DoorResURI" : {
23852       "get": {
23853         "description": "This resource describes the open state of the door.\nA door is modelled by
23854 means of openState (Open/Closed), openDuration (ISO 8601 Time), and openAlarm (boolean).\nFor
23855 openState, the value 'Open' indicates the door is open.\nThe value 'Closed' indicates the door is
23856 closed.\nThe type of openDuration is an ISO 8601 Time encoded string.\nThe openAlarm value 'true'
23857 indicates that the open alarm is active.\nThe openAlarm value 'false' indicates that open alarm is
23858 not active.\nretrieves the state of the Door.",
23859         "parameters": [
23860           { "$ref": "#/parameters/interface-all" }
23861         ],
23862         "responses": {
23863           "200": {
23864             "description": "",
23865             "x-example":
23866               {
23867                 "rt" : ["oic.r.door"],
23868                 "id" : "unique_example_id",
```

```

23869         "openState": "Open",
23870         "openDuration": "P0Y0M0DT2H25M5S",
23871         "openAlarm": true
23872     }
23873     },
23874     "schema": { "$ref": "#/definitions/Door" }
23875 }
23876 }
23877 },
23878 "post": {
23879     "description": "Sets the current Door properties.\n\nThe only property that can be set as
23880 part of an update operation is\n the openAlarm.\n\nThis can be made active (true) or inactive
23881 (false)\n",
23882     "parameters": [
23883         { "$ref": "#/parameters/interface-actuator" },
23884         {
23885             "name": "body",
23886             "in": "body",
23887             "required": true,
23888             "schema": { "$ref": "#/definitions/DoorUpdate" },
23889             "x-example":
23890                 {
23891                     "id": "unique_example_id",
23892                     "openAlarm": false
23893                 }
23894         }
23895     ],
23896     "responses": {
23897         "200": {
23898             "description": "",
23899             "x-example":
23900                 {
23901                     "id": "unique_example_id",
23902                     "openAlarm": false
23903                 }
23904             },
23905             "schema": { "$ref": "#/definitions/DoorUpdate" }
23906         }
23907     }
23908 }
23909 },
23910 },
23911 "parameters": {
23912     "interface-actuator" : {
23913         "in" : "query",
23914         "name" : "if",
23915         "type" : "string",
23916         "enum" : ["oic.if.a", "oic.if.baseline"]
23917     },
23918     "interface-all" : {
23919         "in" : "query",
23920         "name" : "if",
23921         "type" : "string",
23922         "enum" : ["oic.if.a", "oic.if.s", "oic.if.baseline"]
23923     }
23924 },
23925 "definitions": {
23926     "Door" :
23927     {
23928         "properties": {
23929             "id": {
23930                 "description": "Instance ID of this specific resource",
23931                 "maxLength": 64,
23932                 "readOnly": true,
23933                 "type": "string"
23934             },
23935             "if": {
23936                 "description": "The interface set supported by this resource",
23937                 "items": {
23938                     "enum": [
23939                         "oic.if.baseline",

```

```

23940         "oic.if.ll",
23941         "oic.if.b",
23942         "oic.if.lb",
23943         "oic.if.rw",
23944         "oic.if.r",
23945         "oic.if.a",
23946         "oic.if.s"
23947     ],
23948     "type": "string"
23949 },
23950     "minItems": 1,
23951     "readOnly": true,
23952     "type": "array"
23953 },
23954     "n": {
23955         "description": "Friendly name of the resource",
23956         "maxLength": 64,
23957         "readOnly": true,
23958         "type": "string"
23959     },
23960     "openAlarm": {
23961         "description": "The state of the door open alarm",
23962         "type": "boolean"
23963     },
23964     "openDuration": {
23965         "description": "The time duration the door has been open",
23966         "readOnly": true,
23967         "type": "string"
23968     },
23969     "openState": {
23970         "description": "The state of the door (open or closed)",
23971         "enum": [
23972             "Open",
23973             "Closed"
23974         ],
23975         "readOnly": true
23976     },
23977     "precision": {
23978         "description": "Accuracy granularity of the exposed value",
23979         "readOnly": true,
23980         "type": "number"
23981     },
23982     "range": {
23983         "description": "The valid range for the value Property",
23984         "items": {
23985             "anyOf": [
23986                 {
23987                     "type": "number"
23988                 },
23989                 {
23990                     "type": "integer"
23991                 }
23992             ]
23993         },
23994         "maxItems": 2,
23995         "minItems": 2,
23996         "readOnly": true,
23997         "type": "array"
23998     },
23999     "rt": {
24000         "description": "Resource Type",
24001         "items": {
24002             "maxLength": 64,
24003             "type": "string"
24004         },
24005         "minItems": 1,
24006         "readOnly": true,
24007         "type": "array"
24008     },
24009     "step": {
24010         "anyOf": [

```

```

24011         {
24012             "type": "integer"
24013         },
24014         {
24015             "type": "number"
24016         }
24017     ],
24018     "description": "Step value across the defined range",
24019     "readOnly": true
24020 },
24021 "value": {
24022     "anyOf": [
24023         {
24024             "type": "array"
24025         },
24026         {
24027             "type": "string"
24028         },
24029         {
24030             "type": "boolean"
24031         },
24032         {
24033             "type": "integer"
24034         },
24035         {
24036             "type": "number"
24037         },
24038         {
24039             "type": "object"
24040         }
24041     ],
24042     "description": "The value sensed or actuated by this Resource"
24043 }
24044 },
24045 "required": [
24046     "openState"
24047 ],
24048 "type": "object"
24049 }
24050
24051 ,
24052 "DoorUpdate" :
24053 {
24054     "properties": {
24055         "id": {
24056             "description": "Instance ID of this specific resource",
24057             "maxLength": 64,
24058             "readOnly": true,
24059             "type": "string"
24060         },
24061         "if": {
24062             "description": "The interface set supported by this resource",
24063             "items": {
24064                 "enum": [
24065                     "oic.if.baseline",
24066                     "oic.if.ll",
24067                     "oic.if.b",
24068                     "oic.if.lb",
24069                     "oic.if.rw",
24070                     "oic.if.r",
24071                     "oic.if.a",
24072                     "oic.if.s"
24073                 ],
24074                 "type": "string"
24075             },
24076             "minItems": 1,
24077             "readOnly": true,
24078             "type": "array"
24079         },
24080         "n": {
24081             "description": "Friendly name of the resource",

```

```

24082         "maxLength": 64,
24083         "readOnly": true,
24084         "type": "string"
24085     },
24086     "openAlarm": {
24087         "description": "The state of the door open alarm",
24088         "type": "boolean"
24089     },
24090     "precision": {
24091         "description": "Accuracy granularity of the exposed value",
24092         "readOnly": true,
24093         "type": "number"
24094     },
24095     "range": {
24096         "description": "The valid range for the value Property",
24097         "items": {
24098             "anyOf": [
24099                 {
24100                     "type": "number"
24101                 },
24102                 {
24103                     "type": "integer"
24104                 }
24105             ]
24106         },
24107         "maxItems": 2,
24108         "minItems": 2,
24109         "readOnly": true,
24110         "type": "array"
24111     },
24112     "rt": {
24113         "description": "Resource Type",
24114         "items": {
24115             "maxLength": 64,
24116             "type": "string"
24117         },
24118         "minItems": 1,
24119         "readOnly": true,
24120         "type": "array"
24121     },
24122     "step": {
24123         "anyOf": [
24124             {
24125                 "type": "integer"
24126             },
24127             {
24128                 "type": "number"
24129             }
24130         ],
24131         "description": "Step value across the defined range",
24132         "readOnly": true
24133     },
24134     "value": {
24135         "anyOf": [
24136             {
24137                 "type": "array"
24138             },
24139             {
24140                 "type": "string"
24141             },
24142             {
24143                 "type": "boolean"
24144             },
24145             {
24146                 "type": "integer"
24147             },
24148             {
24149                 "type": "number"
24150             },
24151             {
24152                 "type": "object"

```

```

24153     }
24154     ],
24155     "description": "The value sensed or actuated by this Resource"
24156   }
24157 },
24158 "type": "object"
24159 }
24160 }
24161 }
24162 }
24163 }

```

24164 **B.34.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
openAlarm	boolean			The state of the door open alarm
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
openState	multiple types: see schema	yes	Read Only	The state of the door (open or closed)
openDuration	string		Read Only	The time duration the door has been open
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
openAlarm	boolean			The state of the door open alarm

precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource

24165 **B.34.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DoorResURI		get	post		

24166 **B.35 Demand Response Load Control (DRLC).**

24167 **B.35.1 Introduction**

24168 This resource describes any to be applied or currently being applied DRLC signal.
 24169 The DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0.
 24170 Start is a string containing an ISO8601 encoded start time.
 24171 The duration value is in minutes.
 24172 Override indicates whether the consumer has overridden the request (true) or not (false).
 24173 Provides the current DRLC action that is being applied.
 24174

24175 **B.35.2 Example URI**

24176 /DRLCResURI

24177 **B.35.3 Resource Type**

24178 The resource type (rt) is defined as: ['oic.r.energy.drlc'].

24179 **B.35.4 Swagger2.0 Definition**

```

24180 {
24181   "swagger": "2.0",
24182   "info": {
24183     "title": "Demand Response Load Control (DRLC).",
24184     "version": "v1.1.0-20160519",
24185     "license": {
24186       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24187       "x-description": "Redistribution and use in source and binary forms, with or without
24188 modification, are permitted provided that the following conditions are met:\n
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24190 the following disclaimer.\n
24191 2. Redistributions in binary form must reproduce the above
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24193 other materials provided with the distribution.\n\n
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24200 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24201 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n
24202 HOWEVER CAUSED AND
24203 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24204 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24205 OF SUCH DAMAGE.\n"
24206     }
24207   },
24208   "schemes": ["http"],
24209   "consumes": ["application/json"],

```

```

24206     "produces": ["application/json"],
24207     "paths": {
24208         "/DRLCResURI" : {
24209             "get": {
24210                 "description": "This resource describes any to be applied or currently being applied DRLC
24211 signal.\n\nThe DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile
24212 2.0.\n\nStart is a string containing an ISO8601 encoded start time.\n\nThe duration value is in
24213 minutes.\n\nOverride indicates whether the consumer has overridden the request (true) or not
24214 (false).\n\nProvides the current DRLC action that is being applied.\n\n",
24215                 "parameters": [
24216                     { "$ref": "#/parameters/interface" }
24217                 ],
24218                 "responses": {
24219                     "200": {
24220                         "description": "",
24221                         "x-example":
24222                             {
24223                                 "rt": ["oic.r.energy.drlc"],
24224                                 "id": "unique_example_id",
24225                                 "DRType": 1,
24226                                 "start": "2015-01-09T16:45Z",
24227                                 "duration": 10,
24228                                 "override": false
24229                             }
24230                         ,
24231                         "schema": { "$ref": "#/definitions/DRLC" }
24232                     }
24233                 },
24234             },
24235             "put": {
24236                 "description": "Provides the DRLC action to be applied to the device or updates an existing
24237 action.\n\n",
24238                 "parameters": [
24239                     { "$ref": "#/parameters/interface" },
24240                     {
24241                         "name": "body",
24242                         "in": "body",
24243                         "required": true,
24244                         "schema": { "$ref": "#/definitions/DRLC" },
24245                         "x-example":
24246                             {
24247                                 "rt": ["oic.r.energy.drlc"],
24248                                 "id": "unique_example_id",
24249                                 "DRType": 1,
24250                                 "start": "2015-01-09T16:45Z",
24251                                 "duration": 10
24252                             }
24253                     }
24254                 ],
24255                 "responses": {
24256                     "200": {
24257                         "description": "Indicates that the target DRLC resource was changed.\n\nThe new
24258 resource attributes are provided in the response.\n\n",
24259                         "x-example":
24260                             {
24261                                 "DRType": 1,
24262                                 "id": "unique_example_id",
24263                                 "start": "2015-01-09T17:00Z",
24264                                 "duration": 15,
24265                                 "override": false
24266                             }
24267                         ,
24268                         "schema": { "$ref": "#/definitions/DRLC" }
24269                     },
24270                     "201": {
24271                         "description": "Indicates successful creation of the DRLC resource with the
24272 attributes provided.\n\nThe response includes the URI of the created resource.\n\n",
24273                         "x-example":
24274                             {
24275                                 "ResURI": "/MyDevice/MyDRLCURI"
24276                             }

```

```

24277         ,
24278         "schema": { "$ref": "#/definitions/CreateResponse" }
24279     }
24280 }
24281 }
24282 }
24283 },
24284 "parameters": {
24285     "interface" : {
24286         "in" : "query",
24287         "name" : "if",
24288         "type" : "string",
24289         "enum" : ["oic.if.b", "oic.if.baseline"]
24290     }
24291 },
24292 "definitions": {
24293     "DRLC" :
24294     {
24295         "properties": {
24296             "DRType": {
24297                 "description": "The to be applied demand-response type",
24298                 "type": "integer"
24299             },
24300             "duration": {
24301                 "description": "The duration of the to be applied DR type",
24302                 "type": "integer"
24303             },
24304             "id": {
24305                 "description": "Instance ID of this specific resource",
24306                 "maxLength": 64,
24307                 "readOnly": true,
24308                 "type": "string"
24309             },
24310             "if": {
24311                 "description": "The interface set supported by this resource",
24312                 "items": {
24313                     "enum": [
24314                         "oic.if.baseline",
24315                         "oic.if.ll",
24316                         "oic.if.b",
24317                         "oic.if.lb",
24318                         "oic.if.rw",
24319                         "oic.if.r",
24320                         "oic.if.a",
24321                         "oic.if.s"
24322                     ],
24323                     "type": "string"
24324                 },
24325                 "minItems": 1,
24326                 "readOnly": true,
24327                 "type": "array"
24328             },
24329             "n": {
24330                 "description": "Friendly name of the resource",
24331                 "maxLength": 64,
24332                 "readOnly": true,
24333                 "type": "string"
24334             },
24335             "override": {
24336                 "description": "Whether the consumer has overridden the application of DR",
24337                 "type": "boolean"
24338             },
24339             "precision": {
24340                 "description": "Accuracy granularity of the exposed value",
24341                 "readOnly": true,
24342                 "type": "number"
24343             },
24344             "range": {
24345                 "description": "The valid range for the value Property",
24346                 "items": {
24347                     "anyOf": [

```

```

24348         {
24349             "type": "number"
24350         },
24351         {
24352             "type": "integer"
24353         }
24354     ]
24355 },
24356 "maxItems": 2,
24357 "minItems": 2,
24358 "readOnly": true,
24359 "type": "array"
24360 },
24361 "rt": {
24362     "description": "Resource Type",
24363     "items": {
24364         "maxLength": 64,
24365         "type": "string"
24366     },
24367     "minItems": 1,
24368     "readOnly": true,
24369     "type": "array"
24370 },
24371 "start": {
24372     "description": "The start time for the application of DR",
24373     "type": "string"
24374 },
24375 "step": {
24376     "anyOf": [
24377         {
24378             "type": "integer"
24379         },
24380         {
24381             "type": "number"
24382         }
24383     ],
24384     "description": "Step value across the defined range",
24385     "readOnly": true
24386 },
24387 "value": {
24388     "anyOf": [
24389         {
24390             "type": "array"
24391         },
24392         {
24393             "type": "string"
24394         },
24395         {
24396             "type": "boolean"
24397         },
24398         {
24399             "type": "integer"
24400         },
24401         {
24402             "type": "number"
24403         },
24404         {
24405             "type": "object"
24406         }
24407     ],
24408     "description": "The value sensed or actuated by this Resource"
24409 },
24410 },
24411 "required": [
24412     "DRType"
24413 ],
24414 "type": "object"
24415 }
24416 ,
24417 "CreateResponse" :
24418

```

```

24419     {
24420     "properties": {
24421     "ResURI": {
24422     "type": "string"
24423     },
24424     },
24425     "type": "object"
24426   }
24427 }
24428 }
24429 }
24430 }

```

24431 **B.35.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
ResURI	string			
value	multiple types: see schema			The value sensed or actuated by this Resource
start	string			The start time for the application of DR
duration	integer			The duration of the to be applied DR type
override	boolean			Whether the consumer has overridden the application of DR
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
DRType	integer	yes		The to be applied demand-response type
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource

24432 **B.35.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DRLCResURI	put	get			

24433 **B.36 Eco Mode**

24434 **B.36.1 Introduction**

24435 This resource specifies the supported and currently active Eco Mode of a Device
24436 The Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the population
24437 of supportedmodes and modes Properties is restricted to the set of values given below:
24438 "disabled","enabled","notsupported"
24439 The adminforced Property indicates that the value has been set by another party (e.g. via some
24440 offboard Smart Energy interaction)
24441

24442 **B.36.2 Example URI**

24443 /EcomodeResURI

24444 **B.36.3 Resource Type**

24445 The resource type (rt) is defined as: ['oic.r.ecomode'].

24446 **B.36.4 Swagger2.0 Definition**

```
24447 {  
24448   "swagger": "2.0",  
24449   "info": {  
24450     "title": "Eco Mode",  
24451     "version": "OCF-v1.0.0-20160620",  
24452     "license": {  
24453       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
24454       "x-description": "Redistribution and use in source and binary forms, with or without  
24455 modification, are permitted provided that the following conditions are met:\n      1.  
24456 Redistributions of source code must retain the above copyright notice, this list of conditions and  
24457 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
24458 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
24459 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
24460 Connectivity Foundation, INC. \\\nAS IS\\n AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
24461 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
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24463 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
24464 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
24465 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
24466 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
24467 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
24468 OF SUCH DAMAGE.\n\n"  
24469     }  
24470   },  
24471   "schemes": ["http"],  
24472   "consumes": ["application/json"],  
24473   "produces": ["application/json"],  
24474   "paths": {  
24475     "/EcomodeResURI" : {  
24476       "get": {  
24477         "description": "This resource specifies the supported and currently active Eco Mode of a  
24478 Device\nThe Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the  
24479 population of supportedmodes and modes Properties is restricted to the set of values given  
24480 below:\n\n\"disabled\\n\", \"enabled\\n\", \"notsupported\\n\"\n\nThe adminforced Property indicates that the  
24481 value has been set by another party (e.g. via some offboard Smart Energy interaction)\n\n",  
24482         "parameters": [  
24483           { "$ref": "#/parameters/interface" }  
24484         ],  
24485         "responses": {  
24486           "200": {  
24487             "description": "",  
24488             "x-example":  
24489               {  
24490                 "rt": ["oic.r.ecomode"],  
24491                 "id": "unique_example_id",  
24492                 "supportedModes": ["disabled","enabled"],  
24493                 "modes": ["disabled"],  
24494                 "adminforced": false
```

```

24495         }
24496     },
24497     "schema": { "$ref": "#/definitions/ecomode" }
24498 }
24499 },
24500 },
24501 "post": {
24502     "description": "",
24503     "parameters": [
24504         { "$ref": "#/parameters/interface" },
24505         {
24506             "name": "body",
24507             "in": "body",
24508             "required": true,
24509             "schema": { "$ref": "#/definitions/ecomode-update" },
24510             "x-example":
24511                 {
24512                     "id": "unique_example_id",
24513                     "modes": ["enabled"]
24514                 }
24515         }
24516     ],
24517     "responses": {
24518         "200": {
24519             "description": "",
24520             "x-example":
24521                 {
24522                     "id": "unique_example_id",
24523                     "modes": ["enabled"]
24524                 }
24525             ,
24526             "schema": { "$ref": "#/definitions/ecomode-update" }
24527         }
24528     }
24529 }
24530 },
24531 },
24532 "parameters": {
24533     "interface": {
24534         "in": "query",
24535         "name": "if",
24536         "type": "string",
24537         "enum": ["oic.if.a", "oic.if.baseline"]
24538     }
24539 },
24540 "definitions": {
24541     "ecomode": {
24542         {
24543             "properties": {
24544                 "adminforced": {
24545 action.",
24546                     "description": "Indicator that the current mode of operation has been forced by admin",
24547                     "readOnly": true,
24548                     "type": "boolean"
24549                 },
24550                 "id": {
24551                     "description": "Instance ID of this specific resource",
24552                     "maxLength": 64,
24553                     "readOnly": true,
24554                     "type": "string"
24555                 },
24556                 "if": {
24557                     "description": "The interface set supported by this resource",
24558                     "items": {
24559                         "enum": [
24560                             "oic.if.baseline",
24561                             "oic.if.ll",
24562                             "oic.if.b",
24563                             "oic.if.lb",
24564                             "oic.if.rw",
24565                             "oic.if.r",

```

```

24566         "oic.if.a",
24567         "oic.if.s"
24568     ],
24569     "type": "string"
24570 },
24571 "minItems": 1,
24572 "readOnly": true,
24573 "type": "array"
24574 },
24575 "modes": {
24576     "description": "Array of the currently active mode(s)",
24577     "items": {
24578         "type": "string"
24579     },
24580     "type": "array"
24581 },
24582 "n": {
24583     "description": "Friendly name of the resource",
24584     "maxLength": 64,
24585     "readOnly": true,
24586     "type": "string"
24587 },
24588 "precision": {
24589     "description": "Accuracy granularity of the exposed value",
24590     "readOnly": true,
24591     "type": "number"
24592 },
24593 "range": {
24594     "description": "The valid range for the value Property",
24595     "items": {
24596         "anyOf": [
24597             {
24598                 "type": "number"
24599             },
24600             {
24601                 "type": "integer"
24602             }
24603         ]
24604     },
24605     "maxItems": 2,
24606     "minItems": 2,
24607     "readOnly": true,
24608     "type": "array"
24609 },
24610 "rt": {
24611     "description": "Resource Type",
24612     "items": {
24613         "maxLength": 64,
24614         "type": "string"
24615     },
24616     "minItems": 1,
24617     "readOnly": true,
24618     "type": "array"
24619 },
24620 "step": {
24621     "anyOf": [
24622         {
24623             "type": "integer"
24624         },
24625         {
24626             "type": "number"
24627         }
24628     ],
24629     "description": "Step value across the defined range",
24630     "readOnly": true
24631 },
24632 "supportedModes": {
24633     "description": "Array of possible modes the device supports.",
24634     "items": {
24635         "type": "string"
24636     },

```



```

24637         "readOnly": true,
24638         "type": "array"
24639     },
24640     "value": {
24641         "anyOf": [
24642             {
24643                 "type": "array"
24644             },
24645             {
24646                 "type": "string"
24647             },
24648             {
24649                 "type": "boolean"
24650             },
24651             {
24652                 "type": "integer"
24653             },
24654             {
24655                 "type": "number"
24656             },
24657             {
24658                 "type": "object"
24659             }
24660         ],
24661         "description": "The value sensed or actuated by this Resource"
24662     }
24663 },
24664 "required": [
24665     "supportedModes",
24666     "modes"
24667 ],
24668 "type": "object"
24669 }
24670
24671 ,
24672 "ecomode-update" :
24673 {
24674     "properties": {
24675         "id": {
24676             "description": "Instance ID of this specific resource",
24677             "maxLength": 64,
24678             "readOnly": true,
24679             "type": "string"
24680         },
24681         "if": {
24682             "description": "The interface set supported by this resource",
24683             "items": {
24684                 "enum": [
24685                     "oic.if.baseline",
24686                     "oic.if.ll",
24687                     "oic.if.b",
24688                     "oic.if.lb",
24689                     "oic.if.rw",
24690                     "oic.if.r",
24691                     "oic.if.a",
24692                     "oic.if.s"
24693                 ],
24694                 "type": "string"
24695             },
24696             "minItems": 1,
24697             "readOnly": true,
24698             "type": "array"
24699         },
24700         "modes": {
24701             "description": "Desired mode",
24702             "items": {
24703                 "type": "string"
24704             },
24705             "type": "array"
24706         },
24707         "n": {

```

```

24708         "description": "Friendly name of the resource",
24709         "maxLength": 64,
24710         "readOnly": true,
24711         "type": "string"
24712     },
24713     "precision": {
24714         "description": "Accuracy granularity of the exposed value",
24715         "readOnly": true,
24716         "type": "number"
24717     },
24718     "range": {
24719         "description": "The valid range for the value Property",
24720         "items": {
24721             "anyOf": [
24722                 {
24723                     "type": "number"
24724                 },
24725                 {
24726                     "type": "integer"
24727                 }
24728             ]
24729         },
24730         "maxItems": 2,
24731         "minItems": 2,
24732         "readOnly": true,
24733         "type": "array"
24734     },
24735     "rt": {
24736         "description": "Resource Type",
24737         "items": {
24738             "maxLength": 64,
24739             "type": "string"
24740         },
24741         "minItems": 1,
24742         "readOnly": true,
24743         "type": "array"
24744     },
24745     "step": {
24746         "anyOf": [
24747             {
24748                 "type": "integer"
24749             },
24750             {
24751                 "type": "number"
24752             }
24753         ],
24754         "description": "Step value across the defined range",
24755         "readOnly": true
24756     },
24757     "value": {
24758         "anyOf": [
24759             {
24760                 "type": "array"
24761             },
24762             {
24763                 "type": "string"
24764             },
24765             {
24766                 "type": "boolean"
24767             },
24768             {
24769                 "type": "integer"
24770             },
24771             {
24772                 "type": "number"
24773             },
24774             {
24775                 "type": "object"
24776             }
24777         ],
24778         "description": "The value sensed or actuated by this Resource"

```

```

24779     }
24780   },
24781   "required": [
24782     "modes"
24783   ],
24784   "type": "object"
24785 }
24786 }
24787 }
24788 }
24789 }

```

B.36.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
adminforced	boolean		Read Only	Indicator that the current mode of operation has been forced by admin action.
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
modes	array: see schema	yes		Array of the currently active mode(s)
if	array: see schema		Read Only	The interface set supported by this resource
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value

value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
modes	array: see schema	yes		Desired mode
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range

24791 **B.36.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EcomodeResURI		get	post		

24792 **B.37 Energy**

24793 **B.37.1 Introduction**

24794 This resource describes the attributes associated with electrical energy. This can be used for either
 24795 rated (read-only), desired (read-write) or measured (read-only) energy. The voltage is in Volts (V),
 24796 current in Amps (A), and frequency in Hertz (Hz).
 24797 Retrieves the current energy.
 24798

24799 **B.37.2 Example URI**

24800 /EnergyResURI

24801 **B.37.3 Resource Type**

24802 The resource type (rt) is defined as: ['oic.r.energy.electrical'].

24803 **B.37.4 Swagger2.0 Definition**

```

24804 {
24805   "swagger": "2.0",
24806   "info": {
24807     "title": "Energy",
24808     "version": "v1.1.0-20170815",
24809     "license": {
24810       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24811       "x-description": "Redistribution and use in source and binary forms, with or without
24812 modification, are permitted provided that the following conditions are met:\n      1.
24813 Redistributions of source code must retain the above copyright notice, this list of conditions and
24814 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
24815 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
24816 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
24817 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24818 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24819 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
24820 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24821 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24822 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
24823 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24824 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24825 OF SUCH DAMAGE.\n"
24826   }
24827 },
  
```

```

24828     "schemes": ["http"],
24829     "consumes": ["application/json"],
24830     "produces": ["application/json"],
24831     "paths": {
24832       "/EnergyResURI" : {
24833         "get": {
24834           "description": "This resource describes the attributes associated with electrical energy.
24835 This can be used for either rated (read-only), desired (read-write) or measured (read-only) energy.
24836 The voltage is in Volts (V), current in Amps (A), and frequency in Hertz (Hz).\nRetrieves the
24837 current energy.\n",
24838           "parameters": [
24839             { "$ref": "#/parameters/interface-all" }
24840           ],
24841           "responses": {
24842             "200": {
24843               "description": "",
24844               "x-example":
24845                 {
24846                   "rt": ["oic.r.energy.electrical"],
24847                   "id": "unique_example_id",
24848                   "voltage": 120.0,
24849                   "current": 5.0,
24850                   "frequency": 60.0
24851                 }
24852             },
24853             "schema": { "$ref": "#/definitions/Energy" }
24854           }
24855         },
24856       },
24857       "post": {
24858         "description": "Sets the desired energy values\n",
24859         "parameters": [
24860           { "$ref": "#/parameters/interface-update" },
24861           {
24862             "name": "body",
24863             "in": "body",
24864             "required": true,
24865             "schema": { "$ref": "#/definitions/EnergyUpdate" },
24866             "x-example":
24867               {
24868                 "id": "unique_example_id",
24869                 "desiredvoltage": 130.0,
24870                 "desiredcurrent": 6.0
24871               }
24872           }
24873         ],
24874         "responses": {
24875           "200": {
24876             "description": "",
24877             "x-example":
24878               {
24879                 "id": "unique_example_id",
24880                 "desiredvoltage": 130.0,
24881                 "desiredcurrent": 6.0
24882               }
24883           }
24884         }
24885       }
24886     },
24887     "parameters": {
24888       "interface-update" : {
24889         "in" : "query",
24890         "name" : "if",
24891         "type" : "string",
24892         "enum" : ["oic.if.rw", "oic.if.baseline"]
24893       },
24894       "interface-all" : {
24895         "in" : "query",
24896         "name" : "if",
24897         "type" : "string",

```

```

24899     "enum" : ["oic.if.r", "oic.if.rw", "oic.if.s", "oic.if.baseline"]
24900   }
24901 },
24902 "definitions": {
24903   "Energy" :
24904     {
24905       "properties": {
24906         "current": {
24907           "description": "The electric current in Amps (A).",
24908           "readOnly": true,
24909           "type": "number"
24910         },
24911         "desiredcurrent": {
24912           "description": "The desired electric current in Amps (A).",
24913           "type": "number"
24914         },
24915         "desiredfrequency": {
24916           "description": "The desired electric frequency in Hertz (Hz).",
24917           "type": "number"
24918         },
24919         "desiredvoltage": {
24920           "description": "The desired electric voltage in Volts (V).",
24921           "type": "number"
24922         },
24923         "frequency": {
24924           "description": "The electric frequency in Hertz (Hz).",
24925           "readOnly": true,
24926           "type": "number"
24927         },
24928         "id": {
24929           "description": "Instance ID of this specific resource",
24930           "maxLength": 64,
24931           "readOnly": true,
24932           "type": "string"
24933         },
24934         "if": {
24935           "description": "The interface set supported by this resource",
24936           "items": {
24937             "enum": [
24938               "oic.if.baseline",
24939               "oic.if.ll",
24940               "oic.if.b",
24941               "oic.if.lb",
24942               "oic.if.rw",
24943               "oic.if.x",
24944               "oic.if.a",
24945               "oic.if.s"
24946             ],
24947             "type": "string"
24948           },
24949           "minItems": 1,
24950           "readOnly": true,
24951           "type": "array"
24952         },
24953         "n": {
24954           "description": "Friendly name of the resource",
24955           "maxLength": 64,
24956           "readOnly": true,
24957           "type": "string"
24958         },
24959         "precision": {
24960           "description": "Accuracy granularity of the exposed value",
24961           "readOnly": true,
24962           "type": "number"
24963         },
24964         "range": {
24965           "description": "The valid range for the value Property",
24966           "items": {
24967             "anyOf": [
24968               {
24969                 "type": "number"

```

```

24970         },
24971         {
24972             "type": "integer"
24973         }
24974     ]
24975 },
24976 "maxItems": 2,
24977 "minItems": 2,
24978 "readOnly": true,
24979 "type": "array"
24980 },
24981 "rt": {
24982     "description": "Resource Type",
24983     "items": {
24984         "maxLength": 64,
24985         "type": "string"
24986     },
24987     "minItems": 1,
24988     "readOnly": true,
24989     "type": "array"
24990 },
24991 "step": {
24992     "anyOf": [
24993         {
24994             "type": "integer"
24995         },
24996         {
24997             "type": "number"
24998         }
24999     ],
25000     "description": "Step value across the defined range",
25001     "readOnly": true
25002 },
25003 "value": {
25004     "anyOf": [
25005         {
25006             "type": "array"
25007         },
25008         {
25009             "type": "string"
25010         },
25011         {
25012             "type": "boolean"
25013         },
25014         {
25015             "type": "integer"
25016         },
25017         {
25018             "type": "number"
25019         },
25020         {
25021             "type": "object"
25022         }
25023     ],
25024     "description": "The value sensed or actuated by this Resource"
25025 },
25026 "voltage": {
25027     "description": "The electric voltage in Volts (V).",
25028     "readOnly": true,
25029     "type": "number"
25030 },
25031 },
25032 "required": [
25033     "voltage",
25034     "current",
25035     "frequency"
25036 ],
25037 "type": "object"
25038 }
25039
25040

```

```

25041 "EnergyUpdate" :
25042 {
25043   "anyOf": [
25044     {
25045       "required": [
25046         "desiredvoltage"
25047       ]
25048     },
25049     {
25050       "required": [
25051         "desiredcurrent"
25052       ]
25053     },
25054     {
25055       "required": [
25056         "desiredfrequency"
25057       ]
25058     }
25059   ],
25060   "properties": {
25061     "desiredcurrent": {
25062       "description": "The desired electric current in Amps (A).",
25063       "type": "number"
25064     },
25065     "desiredfrequency": {
25066       "description": "The desired electric frequency in Hertz (Hz).",
25067       "type": "number"
25068     },
25069     "desiredvoltage": {
25070       "description": "The desired electric voltage in Volts (V).",
25071       "type": "number"
25072     },
25073     "id": {
25074       "description": "Instance ID of this specific resource",
25075       "maxLength": 64,
25076       "readOnly": true,
25077       "type": "string"
25078     },
25079     "if": {
25080       "description": "The interface set supported by this resource",
25081       "items": {
25082         "enum": [
25083           "oic.if.baseline",
25084           "oic.if.ll",
25085           "oic.if.b",
25086           "oic.if.lb",
25087           "oic.if.rw",
25088           "oic.if.r",
25089           "oic.if.a",
25090           "oic.if.s"
25091         ],
25092         "type": "string"
25093       },
25094       "minItems": 1,
25095       "readOnly": true,
25096       "type": "array"
25097     },
25098     "n": {
25099       "description": "Friendly name of the resource",
25100       "maxLength": 64,
25101       "readOnly": true,
25102       "type": "string"
25103     },
25104     "precision": {
25105       "description": "Accuracy granularity of the exposed value",
25106       "readOnly": true,
25107       "type": "number"
25108     },
25109     "range": {
25110       "description": "The valid range for the value Property",
25111       "items": {

```



```

25112         "anyOf": [
25113             {
25114                 "type": "number"
25115             },
25116             {
25117                 "type": "integer"
25118             }
25119         ]
25120     },
25121     "maxItems": 2,
25122     "minItems": 2,
25123     "readOnly": true,
25124     "type": "array"
25125 },
25126 "rt": {
25127     "description": "Resource Type",
25128     "items": {
25129         "maxLength": 64,
25130         "type": "string"
25131     },
25132     "minItems": 1,
25133     "readOnly": true,
25134     "type": "array"
25135 },
25136 "step": {
25137     "anyOf": [
25138         {
25139             "type": "integer"
25140         },
25141         {
25142             "type": "number"
25143         }
25144     ],
25145     "description": "Step value across the defined range",
25146     "readOnly": true
25147 },
25148 "value": {
25149     "anyOf": [
25150         {
25151             "type": "array"
25152         },
25153         {
25154             "type": "string"
25155         },
25156         {
25157             "type": "boolean"
25158         },
25159         {
25160             "type": "integer"
25161         },
25162         {
25163             "type": "number"
25164         },
25165         {
25166             "type": "object"
25167         }
25168     ],
25169     "description": "The value sensed or actuated by this Resource"
25170 }
25171 },
25172 "type": "object"
25173 }
25174 }
25175 }
25176 }
25177

```

25178 B.37.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
desiredcurrent	number			The desired electric current in Amps (A).
desiredfrequency	number			The desired electric frequency in Hertz (Hz).
frequency	number	yes	Read Only	The electric frequency in Hertz (Hz).
desiredvoltage	number			The desired electric voltage in Volts (V).
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
voltage	number	yes	Read Only	The electric voltage in Volts (V).
current	number	yes	Read Only	The electric current in Amps (A).
n	string		Read Only	Friendly name of the resource
desiredvoltage	number			The desired electric voltage in Volts (V).
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or

				actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
desiredcurrent	number			The desired electric current in Amps (A).
desiredfrequency	number	yes		The desired electric frequency in Hertz (Hz).

25179 **B.37.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EnergyResURI		get	post		

25180 **B.38 Energy Consumption**

25181 **B.38.1 Introduction**

25182 This resource describes the energy consumed by the device since power up (the energy value is
25183 in Watt Hours [Wh])
25184 and the instantaneous power draw of the device (the power value is in Watts [W]) at the time the
25185 resource was queried.
25186 The power value is in Watts [W].
25187 The energy value is in Watt Hours [Wh].
25188 Provides the current power draw and cumulative energy usage.
25189

25190 **B.38.2 Example URI**

25191 /EnergyConsumptionResURI

25192 **B.38.3 Resource Type**

25193 The resource type (rt) is defined as: ['oic.r.energy.consumption'].

25194 **B.38.4 Swagger2.0 Definition**

```

25195 {
25196   "swagger": "2.0",
25197   "info": {
25198     "title": "Energy Consumption",
25199     "version": "v1.1.0-20160519",
25200     "license": {
25201       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25202       "x-description": "Redistribution and use in source and binary forms, with or without
25203 modification, are permitted provided that the following conditions are met:\n      1.
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```

```

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25214 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
25215 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
25216 OF SUCH DAMAGE.\n"
25217 }
25218 },
25219 "schemes": ["http"],
25220 "consumes": ["application/json"],
25221 "produces": ["application/json"],
25222 "paths": {
25223   "/EnergyConsumptionResURI" : {
25224     "get": {
25225       "description": "This resource describes the energy consumed by the device since power up
25226 (the energy value is in Watt Hours [Wh]) \nand the instantaneous power draw of the device (the
25227 power value is in Watts [W]) at the time the resource was queried.\nThe power value is in Watts
25228 [W].\nThe energy value is in Watt Hours [Wh].\nProvides the current power draw and cumulative
25229 energy usage.\n",
25230       "parameters": [
25231         {"$ref": "#/parameters/interface"}
25232       ],
25233       "responses": {
25234         "200": {
25235           "description": "",
25236           "x-example":
25237             {
25238               "rt": ["oic.r.energy.consumption"],
25239               "id": "unique_example_id",
25240               "power": 2000.1,
25241               "energy": 3500.4
25242             }
25243           ,
25244           "schema": {"$ref": "#/definitions/Consumption"}
25245         }
25246       }
25247     }
25248   },
25249 },
25250 "parameters": {
25251   "interface" : {
25252     "in" : "query",
25253     "name" : "if",
25254     "type" : "string",
25255     "enum" : ["oic.if.s", "oic.if.baseline"]
25256   }
25257 },
25258 "definitions": {
25259   "Consumption" :
25260     {
25261     "properties": {
25262       "energy": {
25263         "description": "Energy consumed",
25264         "readOnly": true,
25265         "type": "number"
25266       },
25267       "id": {
25268         "description": "Instance ID of this specific resource",
25269         "maxLength": 64,
25270         "readOnly": true,
25271         "type": "string"
25272       },
25273       "if": {
25274         "description": "The interface set supported by this resource",
25275         "items": {
25276           "enum": [
25277             "oic.if.baseline",
25278             "oic.if.ll",
25279             "oic.if.b",
25280             "oic.if.lb",

```

```

25281         "oic.if.rw",
25282         "oic.if.r",
25283         "oic.if.a",
25284         "oic.if.s"
25285     ],
25286     "type": "string"
25287 },
25288 "minItems": 1,
25289 "readOnly": true,
25290 "type": "array"
25291 },
25292 "n": {
25293     "description": "Friendly name of the resource",
25294     "maxLength": 64,
25295     "readOnly": true,
25296     "type": "string"
25297 },
25298 "power": {
25299     "description": "Instantaneous Power",
25300     "readOnly": true,
25301     "type": "number"
25302 },
25303 "precision": {
25304     "description": "Accuracy granularity of the exposed value",
25305     "readOnly": true,
25306     "type": "number"
25307 },
25308 "range": {
25309     "description": "The valid range for the value Property",
25310     "items": {
25311         "anyOf": [
25312             {
25313                 "type": "number"
25314             },
25315             {
25316                 "type": "integer"
25317             }
25318         ]
25319     },
25320     "maxItems": 2,
25321     "minItems": 2,
25322     "readOnly": true,
25323     "type": "array"
25324 },
25325 "rt": {
25326     "description": "Resource Type",
25327     "items": {
25328         "maxLength": 64,
25329         "type": "string"
25330     },
25331     "minItems": 1,
25332     "readOnly": true,
25333     "type": "array"
25334 },
25335 "step": {
25336     "anyOf": [
25337         {
25338             "type": "integer"
25339         },
25340         {
25341             "type": "number"
25342         }
25343     ],
25344     "description": "Step value across the defined range",
25345     "readOnly": true
25346 },
25347 "value": {
25348     "anyOf": [
25349         {
25350             "type": "array"
25351         },

```

```

25352     {
25353         "type": "string"
25354     },
25355     {
25356         "type": "boolean"
25357     },
25358     {
25359         "type": "integer"
25360     },
25361     {
25362         "type": "number"
25363     },
25364     {
25365         "type": "object"
25366     }
25367 ],
25368 "description": "The value sensed or actuated by this Resource"
25369 },
25370 },
25371 "required": [
25372     "power",
25373     "energy"
25374 ],
25375 "type": "object"
25376 }
25377 }
25378 }
25379 }
25380

```

25381 **B.38.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
energy	number	yes	Read Only	Energy consumed
range	array: see schema		Read Only	The valid range for the value Property
power	number	yes	Read Only	Instantaneous Power
rt	array: see schema		Read Only	Resource Type

25382 **B.38.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

/EnergyConsumptionResURI		get			
--------------------------	--	-----	--	--	--

25383 **B.39 Energy Generation**

25384 **B.39.1 Introduction**

25385 This resource describes the attributes associated with energy generation
 25386 energygenerated is a number that provides the energy generated in Watt-hour(Wh).
 25387 Retrieves the current energy generation.
 25388

25389 **B.39.2 Example URI**

25390 /EnergyGenerationResURI

25391 **B.39.3 Resource Type**

25392 The resource type (rt) is defined as: ['oic.r.energy.generation'].

25393 **B.39.4 Swagger2.0 Definition**

```

25394 {
25395   "swagger": "2.0",
25396   "info": {
25397     "title": "Energy Generation",
25398     "version": "v1.1.0-20170815",
25399     "license": {
25400       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25401       "x-description": "Redistribution and use in source and binary forms, with or without
25402 modification, are permitted provided that the following conditions are met:\n      1.
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25413 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
25414 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
25415 OF SUCH DAMAGE.\n"
25416     }
25417   },
25418   "schemes": ["http"],
25419   "consumes": ["application/json"],
25420   "produces": ["application/json"],
25421   "paths": {
25422     "/EnergyGenerationResURI" : {
25423       "get": {
25424         "description": "This resource describes the attributes associated with energy
25425 generation\nenergygenerated is a number that provides the energy generated in Watt-
25426 hour(Wh).\nRetrieves the current energy generation.\n",
25427         "parameters": [
25428           {"$ref": "#/parameters/interface"}
25429         ],
25430         "responses": {
25431           "200": {
25432             "description": "",
25433             "x-example":
25434             {
25435               "rt": ["oic.r.energy.generation"],
25436               "id": "unique_example_id",
25437               "energygenerated": 3000.00
25438             }
25439           },
25440           "schema": { "$ref": "#/definitions/EnergyGeneration" }
25441         }
25442       }
25443     }
25444   }

```

```

25443     }
25444   }
25445 },
25446 "parameters": {
25447   "interface" : {
25448     "in" : "query",
25449     "name" : "if",
25450     "type" : "string",
25451     "enum" : ["oic.if.s", "oic.if.baseline"]
25452   }
25453 },
25454 "definitions": {
25455   "EnergyGeneration" :
25456     {
25457     "properties": {
25458       "energygenerated": {
25459         "description": "The energy generated in Watt-hour(Wh).",
25460         "readOnly": true,
25461         "type": "number"
25462       },
25463       "id": {
25464         "description": "Instance ID of this specific resource",
25465         "maxLength": 64,
25466         "readOnly": true,
25467         "type": "string"
25468       },
25469       "if": {
25470         "description": "The interface set supported by this resource",
25471         "items": {
25472           "enum": [
25473             "oic.if.baseline",
25474             "oic.if.ll",
25475             "oic.if.b",
25476             "oic.if.lb",
25477             "oic.if.rw",
25478             "oic.if.r",
25479             "oic.if.a",
25480             "oic.if.s"
25481           ],
25482           "type": "string"
25483         },
25484         "minItems": 1,
25485         "readOnly": true,
25486         "type": "array"
25487       },
25488       "n": {
25489         "description": "Friendly name of the resource",
25490         "maxLength": 64,
25491         "readOnly": true,
25492         "type": "string"
25493       },
25494       "precision": {
25495         "description": "Accuracy granularity of the exposed value",
25496         "readOnly": true,
25497         "type": "number"
25498       },
25499       "range": {
25500         "description": "The valid range for the value Property",
25501         "items": {
25502           "anyOf": [
25503             {
25504               "type": "number"
25505             },
25506             {
25507               "type": "integer"
25508             }
25509           ]
25510         },
25511         "maxItems": 2,
25512         "minItems": 2,
25513         "readOnly": true,

```



```

25514         "type": "array"
25515     },
25516     "rt": {
25517         "description": "Resource Type",
25518         "items": {
25519             "maxLength": 64,
25520             "type": "string"
25521         },
25522         "minItems": 1,
25523         "readOnly": true,
25524         "type": "array"
25525     },
25526     "step": {
25527         "anyOf": [
25528             {
25529                 "type": "integer"
25530             },
25531             {
25532                 "type": "number"
25533             }
25534         ],
25535         "description": "Step value across the defined range",
25536         "readOnly": true
25537     },
25538     "value": {
25539         "anyOf": [
25540             {
25541                 "type": "array"
25542             },
25543             {
25544                 "type": "string"
25545             },
25546             {
25547                 "type": "boolean"
25548             },
25549             {
25550                 "type": "integer"
25551             },
25552             {
25553                 "type": "number"
25554             },
25555             {
25556                 "type": "object"
25557             }
25558         ],
25559         "description": "The value sensed or actuated by this Resource"
25560     }
25561 },
25562 "required": [
25563     "energygenerated"
25564 ],
25565 "type": "object"
25566 }
25567 }
25568 }
25569 }
25570

```

25571 **B.39.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
energygenerated	number	yes	Read Only	The energy generated in Watt-hour(Wh).

n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource

25572 **B.39.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EnergyGenerationResURI		get			

25573 **B.40 Energy Overload/Circuit Breaker**

25574 **B.40.1 Introduction**

25575 This resource describes whether an energy overload detector/circuit breaker
 25576 is currently tripped.
 25577 The value is a boolean.
 25578 A value of 'true' means that energy overload has been tripped.
 25579 A value of 'false' means that energy overload has not been tripped.
 25580

25581 **B.40.2 Example URI**

25582 /EnergyOverloadResURI

25583 **B.40.3 Resource Type**

25584 The resource type (rt) is defined as: ['oic.r.energy.overload'].

25585 **B.40.4 Swagger2.0 Definition**

```

25586 {
25587   "swagger": "2.0",
25588   "info": {
25589     "title": "Energy Overload/Circuit Breaker",
25590     "version": "v1.1.0-20160519",
25591     "license": {
25592       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25593       "x-description": "Redistribution and use in source and binary forms, with or without
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```

```

25606 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
25607 OF SUCH DAMAGE.\n"
25608 }
25609 },
25610 "schemes": ["http"],
25611 "consumes": ["application/json"],
25612 "produces": ["application/json"],
25613 "paths": {
25614   "/EnergyOverloadResURI" : {
25615     "get": {
25616       "description": "This resource describes whether an energy overload detector/circuit
25617 breaker\n is currently tripped.\nThe value is a boolean.\nA value of 'true' means that energy
25618 overload has been tripped.\nA value of 'false' means that energy overload has not been tripped.\n",
25619       "parameters": [
25620         {"$ref": "#/parameters/interface"}
25621       ],
25622       "responses": {
25623         "200": {
25624           "description": "",
25625           "x-example":
25626             {
25627               "rt": ["oic.r.energy.overload"],
25628               "id": "unique_example_id",
25629               "value": true
25630             }
25631           ,
25632           "schema": {"$ref": "#/definitions/EnergyOverload"}
25633         }
25634       }
25635     }
25636   },
25637 },
25638 "parameters": {
25639   "interface" : {
25640     "in" : "query",
25641     "name" : "if",
25642     "type" : "string",
25643     "enum" : ["oic.if.s", "oic.if.baseline"]
25644   }
25645 },
25646 "definitions": {
25647   "EnergyOverload" :
25648     {
25649       "properties": {
25650         "id": {
25651           "description": "Instance ID of this specific resource",
25652           "maxLength": 64,
25653           "readOnly": true,
25654           "type": "string"
25655         },
25656         "if": {
25657           "description": "The interface set supported by this resource",
25658           "items": {
25659             "enum": [
25660               "oic.if.baseline",
25661               "oic.if.ll",
25662               "oic.if.b",
25663               "oic.if.lb",
25664               "oic.if.rw",
25665               "oic.if.r",
25666               "oic.if.a",
25667               "oic.if.s"
25668             ],
25669             "type": "string"
25670           },
25671           "minItems": 1,
25672           "readOnly": true,
25673           "type": "array"
25674         },
25675         "n": {
25676           "description": "Friendly name of the resource",

```

```

25677         "maxLength": 64,
25678         "readOnly": true,
25679         "type": "string"
25680     },
25681     "precision": {
25682         "description": "Accuracy granularity of the exposed value",
25683         "readOnly": true,
25684         "type": "number"
25685     },
25686     "range": {
25687         "description": "The valid range for the value Property",
25688         "items": {
25689             "anyOf": [
25690                 {
25691                     "type": "number"
25692                 },
25693                 {
25694                     "type": "integer"
25695                 }
25696             ]
25697         },
25698         "maxItems": 2,
25699         "minItems": 2,
25700         "readOnly": true,
25701         "type": "array"
25702     },
25703     "rt": {
25704         "description": "Resource Type",
25705         "items": {
25706             "maxLength": 64,
25707             "type": "string"
25708         },
25709         "minItems": 1,
25710         "readOnly": true,
25711         "type": "array"
25712     },
25713     "step": {
25714         "anyOf": [
25715             {
25716                 "type": "integer"
25717             },
25718             {
25719                 "type": "number"
25720             }
25721         ],
25722         "description": "Step value across the defined range",
25723         "readOnly": true
25724     },
25725     "value": {
25726         "description": "true = sensed, false = not sensed.",
25727         "readOnly": true,
25728         "type": "boolean"
25729     }
25730 },
25731 "required": [
25732     "value"
25733 ],
25734 "type": "object"
25735 }
25736 }
25737 }
25738 }
25739

```

25740 **B.40.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource

value	boolean	yes	Read Only	true = sensed, false = not sensed.
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

25741 **B.40.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EnergyOverloadResURI		get			

25742 **B.41 Energy Usage**

25743 **B.41.1 Introduction**

25744 This resource describes a cumulative time-based energy usage query..
 25745 The resource is a composite resource being made up as a collection of:
 25746 TimePeriod Resource
 25747 EnergyConsumption Resource
 25748 Retrieves the energy usage information as a composite of consumption over time.
 25749

25750 **B.41.2 Example URI**

25751 /EnergyUsageResURI

25752 **B.41.3 Resource Type**

25753 The resource type (rt) is defined as: ['oic.r.energy.usage'].

25754 **B.41.4 Swagger2.0 Definition**

```

25755 {
25756   "swagger": "2.0",
25757   "info": {
25758     "title": "Energy Usage",
25759     "version": "v1.1.0-20160519",
25760     "license": {
25761       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25762       "x-description": "Redistribution and use in source and binary forms, with or without
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25775 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
25776 OF SUCH DAMAGE.\n"
25777 }
25778 },
25779 "schemes": ["http"],
25780 "consumes": ["application/json"],
25781 "produces": ["application/json"],
25782 "paths": {
25783   "/EnergyUsageResURI" : {
25784     "get": {
25785       "description": "This resource describes a cumulative time-based energy usage query..\nThe
25786 resource is a composite resource being made up as a collection of:\n TimePeriod Resource\n
25787 EnergyConsumption Resource\nRetrieves the energy usage information as a composite of consumption
25788 over time.\n",
25789       "parameters": [
25790         {"$ref": "#/parameters/interface"}
25791       ],
25792       "responses": {
25793         "200": {
25794           "description": "",
25795           "x-example":
25796             {
25797               "rt": ["oic.r.energy.usage"],
25798               "id": "unique_example_id",
25799               "resources": [
25800                 {
25801                   "href": "/TimeIntervalResURI",
25802                   "rel": "contains",
25803                   "rt": ["oic.r.time.period"],
25804                   "if": ["oic.if.a"],
25805                   "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
25806                 },
25807                 {
25808                   "href": "/EnergyConsumptionResURI",
25809                   "rel": "contains",
25810                   "rt": ["oic.r.energy.consumption"],
25811                   "if": ["oic.if.s"],
25812                   "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
25813                 }
25814               ]
25815             }
25816           ,
25817           "schema": {"$ref": "#/definitions/Usage"}
25818         }
25819       }
25820     }
25821   }
25822 },
25823 "parameters": {
25824   "interface" : {
25825     "in" : "query",
25826     "name" : "if",
25827     "type" : "string",
25828     "enum" : ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
25829   }
25830 },
25831 "definitions": {
25832   "Usage" :
25833     {
25834       "properties": {
25835         "id": {
25836           "description": "Instance ID of this specific resource",
25837           "maxLength": 64,
25838           "readOnly": true,
25839           "type": "string"
25840         },
25841         "if": {
25842           "description": "The interface set supported by this resource",
25843           "items": {
25844             "enum": [

```

```

25845         "oic.if.baseline",
25846         "oic.if.ll",
25847         "oic.if.b",
25848         "oic.if.lb",
25849         "oic.if.rw",
25850         "oic.if.r",
25851         "oic.if.a",
25852         "oic.if.s"
25853     ],
25854     "type": "string"
25855 },
25856 "minItems": 1,
25857 "readOnly": true,
25858 "type": "array"
25859 },
25860 "n": {
25861     "description": "Friendly name of the resource",
25862     "maxLength": 64,
25863     "readOnly": true,
25864     "type": "string"
25865 },
25866 "precision": {
25867     "description": "Accuracy granularity of the exposed value",
25868     "readOnly": true,
25869     "type": "number"
25870 },
25871 "range": {
25872     "description": "The valid range for the value Property",
25873     "items": {
25874         "anyOf": [
25875             {
25876                 "type": "number"
25877             },
25878             {
25879                 "type": "integer"
25880             }
25881         ]
25882     },
25883     "maxItems": 2,
25884     "minItems": 2,
25885     "readOnly": true,
25886     "type": "array"
25887 },
25888 "resources": {
25889     "items": {
25890         "properties": {
25891             "anchor": {
25892                 "description": "This is used to override the context URI e.g. override the URI of
25893 the containing collection",
25894                 "format": "uri",
25895                 "maxLength": 256,
25896                 "type": "string"
25897             },
25898             "di": {
25899                 "description": "Unique identifier for device (UUID)",
25900                 "pattern": "[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
25901 F0-9]{12}$",
25902                 "type": "string"
25903             },
25904             "eps": {
25905                 "description": "the Endpoint information of the target Resource",
25906                 "items": {
25907                     "properties": {
25908                         "ep": {
25909                             "description": "URI with Transport Protocol Suites + Endpoint Locator as
25910 specified in 10.2.1",
25911                             "format": "uri",
25912                             "type": "string"
25913                         },
25914                         "pri": {
25915                             "description": "The priority among multiple Endpoints as specified in

```

```

25916 10.2.3",
25917         "minimum": 1,
25918         "type": "integer"
25919     },
25920     },
25921     "type": "object"
25922 },
25923 "type": "array"
25924 },
25925 "href": {
25926     "description": "This is the target URI, it can be specified as a Relative
25927 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
25928 make it unique.",
25929     "format": "uri",
25930     "maxLength": 256,
25931     "type": "string"
25932 },
25933 "if": {
25934     "description": "The interface set supported by this resource",
25935     "items": {
25936         "enum": [
25937             "oic.if.baseline",
25938             "oic.if.ll",
25939             "oic.if.b",
25940             "oic.if.rw",
25941             "oic.if.r",
25942             "oic.if.a",
25943             "oic.if.s"
25944         ],
25945         "type": "string"
25946     },
25947     "minItems": 1,
25948     "type": "array"
25949 },
25950 "ins": {
25951     "description": "The instance identifier for this web link in an array of web
25952 links - used in collections",
25953     "oneOf": [
25954         {
25955             "description": "An ordinal number that is not repeated - must be unique in
25956 the collection context",
25957             "type": "integer"
25958         },
25959         {
25960             "description": "Any unique string including a URI",
25961             "format": "uri",
25962             "maxLength": 256,
25963             "type": "string"
25964         },
25965         {
25966             "description": "Unique identifier (UUID)",
25967             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
25968 fA-F0-9]{12}$",
25969             "type": "string"
25970         }
25971     ]
25972 },
25973 "p": {
25974     "description": "Specifies the framework policies on the Resource referenced by
25975 the target URI",
25976     "properties": {
25977         "bm": {
25978             "description": "Specifies the framework policies on the Resource referenced
25979 by the target URI for e.g. observable and discoverable",
25980             "type": "integer"
25981         }
25982     },
25983     "required": [
25984         "bm"
25985     ],
25986     "type": "object"

```



```

25987     },
25988     "rel": {
25989         "description": "The relation of the target URI referenced by the link to the
25990 context URI",
25991         "oneOf": [
25992             {
25993                 "default": [
25994                     "hosts"
25995                 ],
25996                 "items": {
25997                     "maxLength": 64,
25998                     "type": "string"
25999                 },
26000                 "minItems": 1,
26001                 "type": "array"
26002             },
26003             {
26004                 "default": "hosts",
26005                 "maxLength": 64,
26006                 "type": "string"
26007             }
26008         ]
26009     },
26010     "rt": {
26011         "description": "Resource Type",
26012         "items": {
26013             "maxLength": 64,
26014             "type": "string"
26015         },
26016         "minItems": 1,
26017         "type": "array"
26018     },
26019     "title": {
26020         "description": "A title for the link relation. Can be used by the UI to provide a
26021 context",
26022         "maxLength": 64,
26023         "type": "string"
26024     },
26025     "type": {
26026         "default": "application/cbor",
26027         "description": "A hint at the representation of the resource referenced by the
26028 target URI. This represents the media types that are used for both accepting and emitting",
26029         "items": {
26030             "maxLength": 64,
26031             "type": "string"
26032         },
26033         "minItems": 1,
26034         "type": "array"
26035     }
26036 },
26037 "required": [
26038     "href",
26039     "rt",
26040     "if"
26041 ],
26042 "type": "object"
26043 },
26044 "maxItems": 2,
26045 "minItems": 2,
26046 "type": "array"
26047 },
26048 "rt": {
26049     "description": "Resource Type",
26050     "items": {
26051         "maxLength": 64,
26052         "type": "string"
26053     },
26054     "minItems": 1,
26055     "readOnly": true,
26056     "type": "array"
26057 },

```

```

26058     "step": {
26059       "anyOf": [
26060         {
26061           "type": "integer"
26062         },
26063         {
26064           "type": "number"
26065         }
26066       ],
26067       "description": "Step value across the defined range",
26068       "readOnly": true
26069     },
26070     "value": {
26071       "anyOf": [
26072         {
26073           "type": "array"
26074         },
26075         {
26076           "type": "string"
26077         },
26078         {
26079           "type": "boolean"
26080         },
26081         {
26082           "type": "integer"
26083         },
26084         {
26085           "type": "number"
26086         },
26087         {
26088           "type": "object"
26089         }
26090       ],
26091       "description": "The value sensed or actuated by this Resource"
26092     }
26093   },
26094   "type": "object"
26095 }
26096 }
26097 }
26098 }
26099

```

26100 **B.41.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema	yes	Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
resources	array: see schema			
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource

range	array: schema	see		Read Only	The valid range for the value Property
if	array: schema	see	yes	Read Only	The interface set supported by this resource

26101 **B.41.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/EnergyUsageResURI		get			

26102 **B.42 Foaming**

26103 **B.42.1 Introduction**

26104 This resource describes the attributes associated with foaming. The foam strength of the liquid is
 26105 represented as an integer.
 26106 The foam strength is an integer, the range of which may be enforced by the presence of a range
 26107 Property defined in the baseresource.
 26108 Retrieves the state of foaming.
 26109

26110 **B.42.2 Example URI**

26111 /FoamingResURI

26112 **B.42.3 Resource Type**

26113 The resource type (rt) is defined as: ['oic.r.foaming'].

26114 **B.42.4 Swagger2.0 Definition**

```

26115 {
26116   "swagger": "2.0",
26117   "info": {
26118     "title": "Foaming",
26119     "version": "v1.1.0-20170815",
26120     "license": {
26121       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26122       "x-description": "Redistribution and use in source and binary forms, with or without
26123 modification, are permitted provided that the following conditions are met:\n      1.
26124 Redistributions of source code must retain the above copyright notice, this list of conditions and
26125 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26126 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26127 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26128 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26129 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26130 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
26131 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26132 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26133 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
26134 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26135 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26136 OF SUCH DAMAGE.\n"
26137     }
26138   },
26139   "schemes": ["http"],
26140   "consumes": ["application/json"],
26141   "produces": ["application/json"],
26142   "paths": {
26143     "/FoamingResURI" : {
26144       "get": {
26145         "description": "This resource describes the attributes associated with foaming. The foam
26146 strength of the liquid is represented as an integer.\n\nThe foam strength is an integer, the range of
26147 which may be enforced by the presence of a range Property defined in the baseresource.\n\nRetrieves
26148 the state of foaming.\n",
26149         "parameters": [

```

```

26150         {"$ref": "#/parameters/interface"}
26151     ],
26152     "responses": {
26153         "200": {
26154             "description": "",
26155             "x-example":
26156                 {
26157                     "rt": ["oic.r.foaming"],
26158                     "id": "unique_example_id",
26159                     "foamstrength": 50,
26160                     "range": [0,100]
26161                 }
26162             ,
26163             "schema": { "$ref": "#/definitions/Foaming" }
26164         }
26165     }
26166 },
26167 "post": {
26168     "description": "Sets foaming value\n",
26169     "parameters": [
26170         {"$ref": "#/parameters/interface"},
26171         {
26172             "name": "body",
26173             "in": "body",
26174             "required": true,
26175             "schema": { "$ref": "#/definitions/Foaming" },
26176             "x-example":
26177                 {
26178                     "id": "unique_example_id",
26179                     "foamstrength": 50
26180                 }
26181         }
26182     ],
26183     "responses": {
26184         "200": {
26185             "description": "",
26186             "x-example":
26187                 {
26188                     "id": "unique_example_id",
26189                     "foamstrength": 50
26190                 }
26191             ,
26192             "schema": { "$ref": "#/definitions/Foaming" }
26193         }
26194     }
26195 }
26196 },
26197 "parameters": {
26198     "interface": {
26199         "in": "query",
26200         "name": "if",
26201         "type": "string",
26202         "enum": ["oic.if.rw", "oic.if.baseline"]
26203     }
26204 },
26205 "definitions": {
26206     "Foaming": {
26207         {
26208             "properties": {
26209                 "foamstrength": {
26210                     "description": "The desired foaminess of the liquid.",
26211                     "type": "integer"
26212                 },
26213                 "id": {
26214                     "description": "Instance ID of this specific resource",
26215                     "maxLength": 64,
26216                     "readOnly": true,
26217                     "type": "string"
26218                 }
26219             },
26220             "if": {

```

```

26221     "description": "The interface set supported by this resource",
26222     "items": {
26223         "enum": [
26224             "oic.if.baseline",
26225             "oic.if.ll",
26226             "oic.if.b",
26227             "oic.if.lb",
26228             "oic.if.rw",
26229             "oic.if.r",
26230             "oic.if.a",
26231             "oic.if.s"
26232         ],
26233         "type": "string"
26234     },
26235     "minItems": 1,
26236     "readOnly": true,
26237     "type": "array"
26238 },
26239 "n": {
26240     "description": "Friendly name of the resource",
26241     "maxLength": 64,
26242     "readOnly": true,
26243     "type": "string"
26244 },
26245 "precision": {
26246     "description": "Accuracy granularity of the exposed value",
26247     "readOnly": true,
26248     "type": "number"
26249 },
26250 "range": {
26251     "description": "The valid range for the value Property",
26252     "items": {
26253         "anyOf": [
26254             {
26255                 "type": "number"
26256             },
26257             {
26258                 "type": "integer"
26259             }
26260         ]
26261     },
26262     "maxItems": 2,
26263     "minItems": 2,
26264     "readOnly": true,
26265     "type": "array"
26266 },
26267 "rt": {
26268     "description": "Resource Type",
26269     "items": {
26270         "maxLength": 64,
26271         "type": "string"
26272     },
26273     "minItems": 1,
26274     "readOnly": true,
26275     "type": "array"
26276 },
26277 "step": {
26278     "anyOf": [
26279         {
26280             "type": "integer"
26281         },
26282         {
26283             "type": "number"
26284         }
26285     ],
26286     "description": "Step value across the defined range",
26287     "readOnly": true
26288 },
26289 "value": {
26290     "anyOf": [
26291         {

```

```

26292         "type": "array"
26293     },
26294     {
26295         "type": "string"
26296     },
26297     {
26298         "type": "boolean"
26299     },
26300     {
26301         "type": "integer"
26302     },
26303     {
26304         "type": "number"
26305     },
26306     {
26307         "type": "object"
26308     }
26309 ],
26310 "description": "The value sensed or actuated by this Resource"
26311 }
26312 },
26313 "required": [
26314     "foamstrength"
26315 ],
26316 "type": "object"
26317 }
26318 }
26319 }
26320 }
26321 }

```

26322 **B.42.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
foamstrength	integer	yes		The desired foaminess of the liquid.
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource

26323 **B.42.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

/FoamingResURI		get	post		
----------------	--	-----	------	--	--

26324 **B.43 Generic Sensor**

26325 **B.43.1 Introduction**

26326 This resource describes whether some value or property or entity has been sensed or not.
 26327 The value is a boolean.
 26328 A value of 'true' means that the target has been sensed.
 26329 A value of 'false' means that the target has not been sensed.
 26330

26331 **B.43.2 Example URI**

26332 /GenericSensorResURI

26333 **B.43.3 Resource Type**

26334 The resource type (rt) is defined as: ['oic.r.sensor'].

26335 **B.43.4 Swagger2.0 Definition**

```

26336 {
26337   "swagger": "2.0",
26338   "info": {
26339     "title": "Generic Sensor",
26340     "version": "v1.1.0-20160519",
26341     "license": {
26342       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26343       "x-description": "Redistribution and use in source and binary forms, with or without
26344 modification, are permitted provided that the following conditions are met:\n      1.
26345 Redistributions of source code must retain the above copyright notice, this list of conditions and
26346 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26347 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26348 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26349 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26350 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26351 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
26352 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26353 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26354 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
26355 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26356 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26357 OF SUCH DAMAGE.\n"
26358     }
26359   },
26360   "schemes": ["http"],
26361   "consumes": ["application/json"],
26362   "produces": ["application/json"],
26363   "paths": {
26364     "/GenericSensorResURI" : {
26365       "get": {
26366         "description": "This resource describes whether some value or property or entity has been
26367 sensed or not.\nThe value is a boolean.\nA value of 'true' means that the target has been
26368 sensed.\nA value of 'false' means that the target has not been sensed.\n",
26369         "parameters": [
26370           { "$ref": "#/parameters/interface" }
26371         ],
26372         "responses": {
26373           "200": {
26374             "description": "",
26375             "x-example":
26376               {
26377                 "rt": ["oic.r.sensor"],
26378                 "id": "unique_example_id",
26379                 "value": true
26380               }
26381           },
26382           "schema": { "$ref": "#/definitions/Sensor" }
26383         }
26384       }
26385     }
26386   }

```

```

26384     }
26385     }
26386   }
26387 },
26388 "parameters": {
26389   "interface": {
26390     "in": "query",
26391     "name": "if",
26392     "type": "string",
26393     "enum": ["oic.if.s", "oic.if.baseline"]
26394   }
26395 },
26396 "definitions": {
26397   "Sensor": {
26398     {
26399     "properties": {
26400       "id": {
26401         "description": "Instance ID of this specific resource",
26402         "maxLength": 64,
26403         "readOnly": true,
26404         "type": "string"
26405       },
26406       "if": {
26407         "description": "The interface set supported by this resource",
26408         "items": {
26409           "enum": [
26410             "oic.if.baseline",
26411             "oic.if.ll",
26412             "oic.if.b",
26413             "oic.if.lb",
26414             "oic.if.rw",
26415             "oic.if.r",
26416             "oic.if.a",
26417             "oic.if.s"
26418           ],
26419           "type": "string"
26420         },
26421         "minItems": 1,
26422         "readOnly": true,
26423         "type": "array"
26424       },
26425       "n": {
26426         "description": "Friendly name of the resource",
26427         "maxLength": 64,
26428         "readOnly": true,
26429         "type": "string"
26430       },
26431       "precision": {
26432         "description": "Accuracy granularity of the exposed value",
26433         "readOnly": true,
26434         "type": "number"
26435       },
26436       "range": {
26437         "description": "The valid range for the value Property",
26438         "items": {
26439           "anyOf": [
26440             {
26441               "type": "number"
26442             },
26443             {
26444               "type": "integer"
26445             }
26446           ]
26447         },
26448         "maxItems": 2,
26449         "minItems": 2,
26450         "readOnly": true,
26451         "type": "array"
26452       },
26453       "rt": {
26454         "description": "Resource Type",

```



```

26455     "items": {
26456         "maxLength": 64,
26457         "type": "string"
26458     },
26459     "minItems": 1,
26460     "readOnly": true,
26461     "type": "array"
26462 },
26463 "step": {
26464     "anyOf": [
26465         {
26466             "type": "integer"
26467         },
26468         {
26469             "type": "number"
26470         }
26471     ],
26472     "description": "Step value across the defined range",
26473     "readOnly": true
26474 },
26475 "value": {
26476     "description": "true = sensed, false = not sensed.",
26477     "readOnly": true,
26478     "type": "boolean"
26479 },
26480 },
26481 "type": "object"
26482 }
26483 }
26484 }
26485 }
26486 }

```

26487 **B.43.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	boolean		Read Only	true = sensed, false = not sensed.
n	string		Read Only	Friendly name of the resource

26488 **B.43.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GenericSensorResURI		get			

26489 **B.44 Geolocation**

26490 **B.44.1 Introduction**

26491 This resource describes the properties associated with the current geolocation coordinate.
26492 Geolocation is a geolocation coordinate data.
26493 Latitude is a device's current Latitude coordinate (degrees).
26494 Longitude is a device's current Longitude coordinate (degrees).
26495 Altitude is a device's current Altitude position (metres).
26496 Accuracy is the accuracy level of the latitude and longitude coordinates (metres).
26497 altitudeAccuracy is the accuracy level of the altitude coordinates (metres).
26498 heading is a direction of travel of device (degree).
26499 speed is a device's current velocity (metres per second).
26500 Retrieves the current geolocation coordinates.
26501

26502 **B.44.2 Example URI**

26503 /GeolocationResURI

26504 **B.44.3 Resource Type**

26505 The resource type (rt) is defined as: ['oic.r.sensor.geolocation'].

26506 **B.44.4 Swagger2.0 Definition**

```
26507 {
26508   "swagger": "2.0",
26509   "info": {
26510     "title": "Geolocation",
26511     "version": "v1.1.0-20160519",
26512     "license": {
26513       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26514       "x-description": "Redistribution and use in source and binary forms, with or without
26515 modification, are permitted provided that the following conditions are met:\n      1.
26516 Redistributions of source code must retain the above copyright notice, this list of conditions and
26517 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26518 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26519 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26520 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26521 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26522 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
26523 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26524 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26525 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
26526 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26527 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26528 OF SUCH DAMAGE.\n"
26529     }
26530   },
26531   "schemes": ["http"],
26532   "consumes": ["application/json"],
26533   "produces": ["application/json"],
26534   "paths": {
26535     "/GeolocationResURI" : {
26536       "get": {
26537         "description": "This resource describes the properties associated with the current
26538 geolocation coordinate.\nGeolocation is a geolocation coordinate data.\nLatitude is a device's
26539 current Latitude coordinate (degrees).\nLongitude is a device's current Longitude coordinate
26540 (degrees).\nAltitude is a device's current Altitude position (metres).\nAccuracy is the accuracy
26541 level of the latitude and longitude coordinates (metres).\naltitudeAccuracy is the accuracy level
26542 of the altitude coordinates (metres).\nheading is a direction of travel of device (degree).\nspeed
26543 is a device's current velocity (metres per second).\nRetrieves the current geolocation
26544 coordinates.\n",
26545         "parameters": [
26546           {"$ref": "#/parameters/interface"}
26547         ],
26548         "responses": {
26549           "200": {
```

```

26550         "description" : "",
26551         "x-example":
26552             {
26553                 "rt":          ["oic.r.sensor.geolocation"],
26554                 "id":          "unique_example_id",
26555                 "latitude":    55.070859,
26556                 "longitude":   -3.60512,
26557                 "alt":         12.07,
26558                 "accuracy":    65.0,
26559                 "altitudeAccuracy": 0.0,
26560                 "heading":     90.0,
26561                 "speed":       0.0
26562             }
26563         ,
26564         "schema": { "$ref": "#/definitions/Geolocation" }
26565     }
26566 }
26567 }
26568 }
26569 },
26570 "parameters": {
26571     "interface" : {
26572         "in" : "query",
26573         "name" : "if",
26574         "type" : "string",
26575         "enum" : ["oic.if.s", "oic.if.baseline"]
26576     }
26577 },
26578 "definitions": {
26579     "Geolocation" :
26580     {
26581         "properties": {
26582             "accuracy": {
26583                 "description": "The accuracy level of the latitude and longitude coordinates (metres)",
26584                 "minimum": 0,
26585                 "readOnly": true,
26586                 "type": "number"
26587             },
26588             "alt": {
26589                 "description": "The current height of the position (metres)",
26590                 "minimum": 0,
26591                 "readOnly": true,
26592                 "type": "number"
26593             },
26594             "altitudeAccuracy": {
26595                 "description": "The accuracy level of the altitude coordinates (metres)",
26596                 "minimum": 0,
26597                 "readOnly": true,
26598                 "type": "number"
26599             },
26600             "heading": {
26601                 "description": "Direction of travel of device (degree)",
26602                 "maximum": 360,
26603                 "minimum": 0,
26604                 "readOnly": true,
26605                 "type": "number"
26606             },
26607             "id": {
26608                 "description": "Instance ID of this specific resource",
26609                 "maxLength": 64,
26610                 "readOnly": true,
26611                 "type": "string"
26612             },
26613             "if": {
26614                 "description": "The interface set supported by this resource",
26615                 "items": {
26616                     "enum": [
26617                         "oic.if.baseline",
26618                         "oic.if.ll",
26619                         "oic.if.b",
26620                         "oic.if.lb",

```

```

26621         "oic.if.rw",
26622         "oic.if.x",
26623         "oic.if.a",
26624         "oic.if.s"
26625     ],
26626     "type": "string"
26627 },
26628     "minItems": 1,
26629     "readOnly": true,
26630     "type": "array"
26631 },
26632     "latitude": {
26633         "description": "Device's Current Latitude coordinate (degrees)",
26634         "readOnly": true,
26635         "type": "number"
26636     },
26637     "longitude": {
26638         "description": "Device's Current Longitude coordinate (degrees)",
26639         "readOnly": true,
26640         "type": "number"
26641     },
26642     "n": {
26643         "description": "Friendly name of the resource",
26644         "maxLength": 64,
26645         "readOnly": true,
26646         "type": "string"
26647     },
26648     "precision": {
26649         "description": "Accuracy granularity of the exposed value",
26650         "readOnly": true,
26651         "type": "number"
26652     },
26653     "range": {
26654         "description": "The valid range for the value Property",
26655         "items": {
26656             "anyOf": [
26657                 {
26658                     "type": "number"
26659                 },
26660                 {
26661                     "type": "integer"
26662                 }
26663             ]
26664         },
26665         "maxItems": 2,
26666         "minItems": 2,
26667         "readOnly": true,
26668         "type": "array"
26669     },
26670     "rt": {
26671         "description": "Resource Type",
26672         "items": {
26673             "maxLength": 64,
26674             "type": "string"
26675         },
26676         "minItems": 1,
26677         "readOnly": true,
26678         "type": "array"
26679     },
26680     "speed": {
26681         "description": "Device's current velocity (metres per second)",
26682         "minimum": 0,
26683         "readOnly": true,
26684         "type": "number"
26685     },
26686     "step": {
26687         "anyOf": [
26688             {
26689                 "type": "integer"
26690             },
26691             {

```

```

26692         "type": "number"
26693     }
26694 ],
26695     "description": "Step value across the defined range",
26696     "readOnly": true
26697 },
26698     "value": {
26699         "anyOf": [
26700             {
26701                 "type": "array"
26702             },
26703             {
26704                 "type": "string"
26705             },
26706             {
26707                 "type": "boolean"
26708             },
26709             {
26710                 "type": "integer"
26711             },
26712             {
26713                 "type": "number"
26714             },
26715             {
26716                 "type": "object"
26717             }
26718         ],
26719         "description": "The value sensed or actuated by this Resource"
26720     }
26721 },
26722     "required": [
26723         "latitude",
26724         "longitude",
26725         "alt"
26726     ],
26727     "type": "object"
26728 }
26729 }
26730 }
26731 }
26732 }

```

26733 **B.4.4.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
accuracy	number		Read Only	The accuracy level of the latitude and longitude coordinates (metres)
heading	number		Read Only	Direction of travel of device (degree)
id	string		Read Only	Instance ID of this specific resource
alt	number	yes	Read Only	The current height of the position (metres)
value	multiple types: see schema			The value sensed or actuated by this Resource

latitude	number	yes	Read Only	Device's Current Latitude coordinate (degrees)
range	array: see schema		Read Only	The valid range for the value Property
altitudeAccuracy	number		Read Only	The accuracy level of the altitude coordinates (metres)
rt	array: see schema		Read Only	Resource Type
speed	number		Read Only	Device's current velocity (metres per second)
step	multiple types: see schema		Read Only	Step value across the defined range
longitude	number	yes	Read Only	Device's Current Longitude coordinate (degrees)
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource

26734 **B.44.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GeolocationResURI		get			

26735 **B.45 Glass Break Sensor**

26736 **B.45.1 Introduction**

26737 This resource describes a glass break sensor.
 26738 The value is a boolean.
 26739 A value of 'true' means that glass break has been sensed.
 26740 A value of 'false' means that glass break not been sensed.
 26741

26742 **B.45.2 Example URI**

26743 /GlassBreakResURI

26744 **B.45.3 Resource Type**

26745 The resource type (rt) is defined as: ['oic.r.sensor.glassbreak'].

26746 **B.45.4 Swagger2.0 Definition**

26747 {
 26748 "swagger": "2.0",
 26749 "info": {

```

26750     "title": "Glass Break Sensor",
26751     "version": "v1.1.0-20160519",
26752     "license": {
26753         "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26754         "x-description": "Redistribution and use in source and binary forms, with or without
26755 modification, are permitted provided that the following conditions are met:\n      1.
26756 Redistributions of source code must retain the above copyright notice, this list of conditions and
26757 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26758 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26759 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26760 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26761 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26762 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
26763 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26764 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26765 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
26766 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26767 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26768 OF SUCH DAMAGE.\n"
26769     }
26770 },
26771 "schemes": ["http"],
26772 "consumes": ["application/json"],
26773 "produces": ["application/json"],
26774 "paths": {
26775     "/GlassBreakResURI" : {
26776         "get": {
26777             "description": "This resource describes a glass break sensor.\nThe value is a boolean.\nA
26778 value of 'true' means that glass break has been sensed.\nA value of 'false' means that glass break
26779 not been sensed.\n",
26780             "parameters": [
26781                 { "$ref": "#/parameters/interface" }
26782             ],
26783             "responses": {
26784                 "200": {
26785                     "description" : "",
26786                     "x-example":
26787                     {
26788                         "rt": ["oic.r.sensor.glassbreak"],
26789                         "id": "unique_example_id",
26790                         "value": true
26791                     }
26792                 },
26793                 "schema": { "$ref": "#/definitions/GlassBreak" }
26794             }
26795         }
26796     }
26797 },
26798 },
26799 "parameters": {
26800     "interface" : {
26801         "in" : "query",
26802         "name" : "if",
26803         "type" : "string",
26804         "enum" : ["oic.if.s", "oic.if.baseline"]
26805     }
26806 },
26807 "definitions": {
26808     "GlassBreak" :
26809     {
26810         "properties": {
26811             "id": {
26812                 "description": "Instance ID of this specific resource",
26813                 "maxLength": 64,
26814                 "readOnly": true,
26815                 "type": "string"
26816             },
26817             "if": {
26818                 "description": "The interface set supported by this resource",
26819                 "items": {
26820                     "enum": [

```

```

26821         "oic.if.baseline",
26822         "oic.if.ll",
26823         "oic.if.b",
26824         "oic.if.lb",
26825         "oic.if.rw",
26826         "oic.if.r",
26827         "oic.if.a",
26828         "oic.if.s"
26829     ],
26830     "type": "string"
26831 },
26832     "minItems": 1,
26833     "readOnly": true,
26834     "type": "array"
26835 },
26836 "n": {
26837     "description": "Friendly name of the resource",
26838     "maxLength": 64,
26839     "readOnly": true,
26840     "type": "string"
26841 },
26842 "precision": {
26843     "description": "Accuracy granularity of the exposed value",
26844     "readOnly": true,
26845     "type": "number"
26846 },
26847 "range": {
26848     "description": "The valid range for the value Property",
26849     "items": {
26850         "anyOf": [
26851             {
26852                 "type": "number"
26853             },
26854             {
26855                 "type": "integer"
26856             }
26857         ]
26858     },
26859     "maxItems": 2,
26860     "minItems": 2,
26861     "readOnly": true,
26862     "type": "array"
26863 },
26864 "rt": {
26865     "description": "Resource Type",
26866     "items": {
26867         "maxLength": 64,
26868         "type": "string"
26869     },
26870     "minItems": 1,
26871     "readOnly": true,
26872     "type": "array"
26873 },
26874 "step": {
26875     "anyOf": [
26876         {
26877             "type": "integer"
26878         },
26879         {
26880             "type": "number"
26881         }
26882     ],
26883     "description": "Step value across the defined range",
26884     "readOnly": true
26885 },
26886 "value": {
26887     "description": "true = sensed, false = not sensed.",
26888     "readOnly": true,
26889     "type": "boolean"
26890 }
26891 },

```



```

26892     "required": [
26893         "value"
26894     ],
26895     "type": "object"
26896 }
26897 }
26898 }
26899 }
26900

```

26901 **B.45.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	true = sensed, false = not sensed.
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

26902 **B.45.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GlassBreakResURI		get			

26903 **B.46 Grinder**

26904 **B.46.1 Introduction**

26905 This resource describes the attributes associated with a grinder. The coarseness of the grounds
26906 is an integer. The higher the value, the less coarse. remaining is a percentage that represents the
26907 unground material left.
26908 Retrieves the state of a grinder.
26909

26910 **B.46.2 Example URI**

26911 /GrinderResURI

26912 **B.46.3 Resource Type**

26913 The resource type (rt) is defined as: ['oic.r.grinder'].

26914 **B.46.4 Swagger2.0 Definition**

```

26915 {
26916     "swagger": "2.0",
26917     "info": {

```

```

26918     "title": "Grinder",
26919     "version": "v1.1.0-20170815",
26920     "license": {
26921         "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26922         "x-description": "Redistribution and use in source and binary forms, with or without
26923 modification, are permitted provided that the following conditions are met:\n      1.
26924 Redistributions of source code must retain the above copyright notice, this list of conditions and
26925 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26926 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26927 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26928 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26929 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26930 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
26931 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26932 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26933 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
26934 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26935 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26936 OF SUCH DAMAGE.\n"
26937     }
26938 },
26939 "schemes": ["http"],
26940 "consumes": ["application/json"],
26941 "produces": ["application/json"],
26942 "paths": {
26943     "/GrinderResURI" : {
26944         "get": {
26945             "description": "This resource describes the attributes associated with a grinder. The
26946 coarseness of the grounds is an integer. The higher the value, the less coarse. remaining is a
26947 percentage that represents the unground material left.\nRetrieves the state of a grinder.\n",
26948             "parameters": [
26949                 { "$ref": "#/parameters/interface" }
26950             ],
26951             "responses": {
26952                 "200": {
26953                     "description": "",
26954                     "x-example":
26955                         {
26956                             "rt": ["oic.r.grinder"],
26957                             "id": "unique_example_id",
26958                             "coarseness": 10,
26959                             "remaining": 50
26960                         }
26961             },
26962             "schema": { "$ref": "#/definitions/Grinder" }
26963         }
26964     }
26965 },
26966 "post": {
26967     "description": "Sets grinding values\n",
26968     "parameters": [
26969         { "$ref": "#/parameters/interface" },
26970         {
26971             "name": "body",
26972             "in": "body",
26973             "required": true,
26974             "schema": { "$ref": "#/definitions/GrinderUpdate" },
26975             "x-example":
26976                 {
26977                     "id": "unique_example_id",
26978                     "coarseness": 10
26979                 }
26980         }
26981     ],
26982     "responses": {
26983         "200": {
26984             "description": "",
26985             "x-example":
26986                 {
26987                     "id": "unique_example_id",
26988                     "coarseness": 10

```

```

26989         }
26990     },
26991     "schema": { "$ref": "#/definitions/GrinderUpdate" }
26992 }
26993 }
26994 }
26995 }
26996 },
26997 "parameters": {
26998     "interface": {
26999         "in": "query",
27000         "name": "if",
27001         "type": "string",
27002         "enum": ["oic.if.rw", "oic.if.baseline"]
27003     }
27004 },
27005 "definitions": {
27006     "Grinder": {
27007         {
27008         "properties": {
27009             "coarseness": {
27010                 "description": "The desired coarseness when grinding.",
27011                 "type": "integer"
27012             },
27013             "id": {
27014                 "description": "Instance ID of this specific resource",
27015                 "maxLength": 64,
27016                 "readOnly": true,
27017                 "type": "string"
27018             },
27019             "if": {
27020                 "description": "The interface set supported by this resource",
27021                 "items": {
27022                     "enum": [
27023                         "oic.if.baseline",
27024                         "oic.if.ll",
27025                         "oic.if.b",
27026                         "oic.if.lb",
27027                         "oic.if.rw",
27028                         "oic.if.r",
27029                         "oic.if.a",
27030                         "oic.if.s"
27031                     ],
27032                     "type": "string"
27033                 },
27034                 "minItems": 1,
27035                 "readOnly": true,
27036                 "type": "array"
27037             },
27038             "n": {
27039                 "description": "Friendly name of the resource",
27040                 "maxLength": 64,
27041                 "readOnly": true,
27042                 "type": "string"
27043             },
27044             "precision": {
27045                 "description": "Accuracy granularity of the exposed value",
27046                 "readOnly": true,
27047                 "type": "number"
27048             },
27049             "range": {
27050                 "description": "The valid range for the value Property",
27051                 "items": {
27052                     "anyOf": [
27053                         {
27054                             "type": "number"
27055                         },
27056                         {
27057                             "type": "integer"
27058                         }
27059                     ]

```

```

27060     },
27061     "maxItems": 2,
27062     "minItems": 2,
27063     "readOnly": true,
27064     "type": "array"
27065   },
27066   "remaining": {
27067     "description": "The percentage of unground material left.",
27068     "maximum": 100,
27069     "minimum": 0,
27070     "readOnly": true,
27071     "type": "integer"
27072   },
27073   "rt": {
27074     "description": "Resource Type",
27075     "items": {
27076       "maxLength": 64,
27077       "type": "string"
27078     },
27079     "minItems": 1,
27080     "readOnly": true,
27081     "type": "array"
27082   },
27083   "step": {
27084     "anyOf": [
27085       {
27086         "type": "integer"
27087       },
27088       {
27089         "type": "number"
27090       }
27091     ],
27092     "description": "Step value across the defined range",
27093     "readOnly": true
27094   },
27095   "value": {
27096     "anyOf": [
27097       {
27098         "type": "array"
27099       },
27100       {
27101         "type": "string"
27102       },
27103       {
27104         "type": "boolean"
27105       },
27106       {
27107         "type": "integer"
27108       },
27109       {
27110         "type": "number"
27111       },
27112       {
27113         "type": "object"
27114       }
27115     ],
27116     "description": "The value sensed or actuated by this Resource"
27117   }
27118 },
27119 "required": [
27120   "coarseness"
27121 ],
27122 "type": "object"
27123 }
27124
27125 ,
27126 "GrinderUpdate" :
27127 {
27128   "properties": {
27129     "coarseness": {
27130       "description": "The desired coarseness when grinding.",

```

```

27131         "type": "integer"
27132     },
27133     "id": {
27134         "description": "Instance ID of this specific resource",
27135         "maxLength": 64,
27136         "readOnly": true,
27137         "type": "string"
27138     },
27139     "if": {
27140         "description": "The interface set supported by this resource",
27141         "items": {
27142             "enum": [
27143                 "oic.if.baseline",
27144                 "oic.if.ll",
27145                 "oic.if.b",
27146                 "oic.if.lb",
27147                 "oic.if.rw",
27148                 "oic.if.x",
27149                 "oic.if.a",
27150                 "oic.if.s"
27151             ],
27152             "type": "string"
27153         },
27154         "minItems": 1,
27155         "readOnly": true,
27156         "type": "array"
27157     },
27158     "n": {
27159         "description": "Friendly name of the resource",
27160         "maxLength": 64,
27161         "readOnly": true,
27162         "type": "string"
27163     },
27164     "precision": {
27165         "description": "Accuracy granularity of the exposed value",
27166         "readOnly": true,
27167         "type": "number"
27168     },
27169     "range": {
27170         "description": "The valid range for the value Property",
27171         "items": {
27172             "anyOf": [
27173                 {
27174                     "type": "number"
27175                 },
27176                 {
27177                     "type": "integer"
27178                 }
27179             ]
27180         },
27181         "maxItems": 2,
27182         "minItems": 2,
27183         "readOnly": true,
27184         "type": "array"
27185     },
27186     "rt": {
27187         "description": "Resource Type",
27188         "items": {
27189             "maxLength": 64,
27190             "type": "string"
27191         },
27192         "minItems": 1,
27193         "readOnly": true,
27194         "type": "array"
27195     },
27196     "step": {
27197         "anyOf": [
27198             {
27199                 "type": "integer"
27200             },
27201             {

```

```

27202         "type": "number"
27203     }
27204 ],
27205     "description": "Step value across the defined range",
27206     "readOnly": true
27207 },
27208     "value": {
27209         "anyOf": [
27210             {
27211                 "type": "array"
27212             },
27213             {
27214                 "type": "string"
27215             },
27216             {
27217                 "type": "boolean"
27218             },
27219             {
27220                 "type": "integer"
27221             },
27222             {
27223                 "type": "number"
27224             },
27225             {
27226                 "type": "object"
27227             }
27228         ],
27229         "description": "The value sensed or actuated by this Resource"
27230     }
27231 },
27232     "required": [
27233         "coarseness"
27234     ],
27235     "type": "object"
27236 }
27237 }
27238 }
27239 }
27240

```

27241 **B.46.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
remaining	integer		Read Only	The percentage of unground material left.
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
coarseness	integer	yes		The desired coarseness when grinding.

range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
coarseness	integer	yes		The desired coarseness when grinding.
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource

27242 **B.46.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GrinderResURI		get	post		

27243 **B.47 Heart Rate Zone**

27244 **B.47.1 Introduction**

27245 This resource describes a measured heart rate by the current Zone using the Zoladz method
 27246 The Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is
 27247 the highest.
 27248 The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3", "Zone4",
 27249 "Zone5".
 27250

27251 **B.47.2 Example URI**

27252 /HeartRateZoneResURI

27253 **B.47.3 Resource Type**

27254 The resource type (rt) is defined as: ['oic.r.sensor.heart.zone'].

27255 **B.47.4 Swagger2.0 Definition**

```
27256 {
27257   "swagger": "2.0",
27258   "info": {
27259     "title": "Heart Rate Zone",
27260     "version": "v1.1.0-20160519",
27261     "license": {
27262       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27263       "x-description": "Redistribution and use in source and binary forms, with or without
27264 modification, are permitted provided that the following conditions are met:\n      1.
27265 Redistributions of source code must retain the above copyright notice, this list of conditions and
27266 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
27267 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27268 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
27269 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27270 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27271 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
27272 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27273 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
27274 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
27275 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27276 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27277 OF SUCH DAMAGE.\n"
27278     }
27279   },
27280   "schemes": ["http"],
27281   "consumes": ["application/json"],
27282   "produces": ["application/json"],
27283   "paths": {
27284     "/HeartRateZoneResURI" : {
27285       "get": {
27286         "description": "This resource describes a measured heart rate by the current Zone using the
27287 Zoladz method\nThe Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest,
27288 Zone 5 is the highest.\n\nThe heartRateZone is an enumeration containing one of: \"Zone1\",
27289 \"Zone2\", \"Zone3\", \"Zone4\", \"Zone5\".\n",
27290         "parameters": [
27291           { "$ref": "#/parameters/interface" }
27292         ],
27293         "responses": {
27294           "200": {
27295             "description": "",
27296             "x-example":
27297               {
27298                 "rt": ["oic.r.sensor.heart.zone"],
27299                 "id": "unique_example_id",
27300                 "heartRateZone": "Zone3"
27301               }
27302             ,
27303             "schema": { "$ref": "#/definitions/heartRateZone" }
27304           }
27305         }
27306       }
27307     }
27308   },
27309   "parameters": {
27310     "interface" : {
27311       "in" : "query",
27312       "name" : "if",
27313       "type" : "string",
27314       "enum" : ["oic.if.s", "oic.if.baseline"]
27315     }
27316   },
27317   "definitions": {
27318     "heartRateZone" :
27319       {
27320         "properties": {
27321           "heartRateZone": {
27322             "description": "Current heart rate zone based on the Zoladz system.",
27323             "enum": [
27324               "Zone1",
```



```

27325         "Zone2",
27326         "Zone3",
27327         "Zone4",
27328         "Zone5"
27329     ],
27330     "readOnly": true
27331 },
27332 "id": {
27333     "description": "Instance ID of this specific resource",
27334     "maxLength": 64,
27335     "readOnly": true,
27336     "type": "string"
27337 },
27338 "if": {
27339     "description": "The interface set supported by this resource",
27340     "items": {
27341         "enum": [
27342             "oic.if.baseline",
27343             "oic.if.ll",
27344             "oic.if.b",
27345             "oic.if.lb",
27346             "oic.if.rw",
27347             "oic.if.r",
27348             "oic.if.a",
27349             "oic.if.s"
27350         ],
27351         "type": "string"
27352     },
27353     "minItems": 1,
27354     "readOnly": true,
27355     "type": "array"
27356 },
27357 "n": {
27358     "description": "Friendly name of the resource",
27359     "maxLength": 64,
27360     "readOnly": true,
27361     "type": "string"
27362 },
27363 "precision": {
27364     "description": "Accuracy granularity of the exposed value",
27365     "readOnly": true,
27366     "type": "number"
27367 },
27368 "range": {
27369     "description": "The valid range for the value Property",
27370     "items": {
27371         "anyOf": [
27372             {
27373                 "type": "number"
27374             },
27375             {
27376                 "type": "integer"
27377             }
27378         ]
27379     },
27380     "maxItems": 2,
27381     "minItems": 2,
27382     "readOnly": true,
27383     "type": "array"
27384 },
27385 "rt": {
27386     "description": "Resource Type",
27387     "items": {
27388         "maxLength": 64,
27389         "type": "string"
27390     },
27391     "minItems": 1,
27392     "readOnly": true,
27393     "type": "array"
27394 },
27395 "step": {

```

```

27396     "anyOf": [
27397         {
27398             "type": "integer"
27399         },
27400         {
27401             "type": "number"
27402         }
27403     ],
27404     "description": "Step value across the defined range",
27405     "readOnly": true
27406 },
27407 "value": {
27408     "anyOf": [
27409         {
27410             "type": "array"
27411         },
27412         {
27413             "type": "string"
27414         },
27415         {
27416             "type": "boolean"
27417         },
27418         {
27419             "type": "integer"
27420         },
27421         {
27422             "type": "number"
27423         },
27424         {
27425             "type": "object"
27426         }
27427     ],
27428     "description": "The value sensed or actuated by this Resource"
27429 }
27430 },
27431 "required": [
27432     "heartRateZone"
27433 ]
27434 }
27435 }
27436 }
27437 }
27438 }

```

27439 **B.47.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
heartRateZone	multiple types: see schema	yes	Read Only	Current heart rate zone based on the Zoladz system.

range	array: schema	see		Read Only	The valid range for the value Property
if	array: schema	see		Read Only	The interface set supported by this resource
precision	number			Read Only	Accuracy granularity of the exposed value

27440 **B.47.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeartRateZoneResURI		get			

27441 **B.48 Heating Zone**

27442 **B.48.1 Introduction**

27443 This Resource provides information about the status of a heating zone of a Cook-Top.
 27444 It describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device
 27445 implements pot recognition).
 27446 maxheatinglevel defines the max level for the heating zone
 27447 heatinglevel is the current heating level of the zone
 27448 For each element the value range is from 0 (indication that the zone is not heating) to
 27449 maxheatinglevel,
 27450 Retrieves the current heating zone information.
 27451

27452 **B.48.2 Example URI**

27453 /HeatingZoneResURI

27454 **B.48.3 Resource Type**

27455 The resource type (rt) is defined as: ['oic.r.heatingzone'].

27456 **B.48.4 Swagger2.0 Definition**

```

27457 {
27458   "swagger": "2.0",
27459   "info": {
27460     "title": "Heating Zone",
27461     "version": "OCF1.0-20160722",
27462     "license": {
27463       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27464       "x-description": "Redistribution and use in source and binary forms, with or without
27465 modification, are permitted provided that the following conditions are met:\n
27466 1. Redistributions of source code must retain the above copyright notice, this list of conditions and
27467 the following disclaimer.\n
27468 2. Redistributions in binary form must reproduce the above
27469 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27470 other materials provided with the distribution.\n\n
27471 THIS SOFTWARE IS PROVIDED BY THE Open
27472 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27473 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27474 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
27475 IN NO EVENT SHALL THE Open Connectivity
27476 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27477 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
27478 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n
27479 HOWEVER CAUSED AND
27480 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27481 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27482 OF SUCH DAMAGE.\n"
27483     }
27484   },
27485   "schemes": ["http"],
27486   "consumes": ["application/json"],
27487   "produces": ["application/json"],
27488   "paths": {

```

```

27485     "/HeatingZoneResURI" : {
27486       "get": {
27487         "description": "This Resource provides information about the status of a heating zone of a
27488 Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
27489 device implements pot recognition).\nmaxheatinglevel defines the max level for the heating
27490 zone\nheatinglevel is the current heating level of the zone\n For each element the value range is
27491 from 0 (indication that the zone is not heating) to maxheatinglevel,\nRetrieves the current heating
27492 zone information.\n",
27493         "parameters": [
27494           { "$ref": "#/parameters/interface" }
27495         ],
27496         "responses": {
27497           "200": {
27498             "description": "",
27499             "x-example":
27500             {
27501               "rt": ["oic.r.heatingzone"],
27502               "id": "unique_example_id",
27503               "maxheatinglevel": 6,
27504               "heatinglevel": 0
27505             }
27506           },
27507           "schema": { "$ref": "#/definitions/HeatingZone" }
27508         }
27509       }
27510     }
27511   },
27512 },
27513 "parameters": {
27514   "interface" : {
27515     "in" : "query",
27516     "name" : "if",
27517     "type" : "string",
27518     "enum" : ["oic.if.s", "oic.if.baseline"]
27519   }
27520 },
27521 "definitions": {
27522   "HeatingZone" :
27523   {
27524     "properties": {
27525       "heatinglevel": {
27526         "description": "Current heating level for the zone indicated.",
27527         "readOnly": true,
27528         "type": "integer"
27529       },
27530       "id": {
27531         "description": "Instance ID of this specific resource",
27532         "maxLength": 64,
27533         "readOnly": true,
27534         "type": "string"
27535       },
27536       "if": {
27537         "description": "The interface set supported by this resource",
27538         "items": {
27539           "enum": [
27540             "oic.if.baseline",
27541             "oic.if.ll",
27542             "oic.if.b",
27543             "oic.if.lb",
27544             "oic.if.rw",
27545             "oic.if.r",
27546             "oic.if.a",
27547             "oic.if.s"
27548           ],
27549           "type": "string"
27550         },
27551         "minItems": 1,
27552         "readOnly": true,
27553         "type": "array"
27554       },
27555       "maxheatinglevel": {

```

```

27556         "description": "Maximum heating level for the zone indicated.",
27557         "readOnly": true,
27558         "type": "integer"
27559     },
27560     "n": {
27561         "description": "Friendly name of the resource",
27562         "maxLength": 64,
27563         "readOnly": true,
27564         "type": "string"
27565     },
27566     "precision": {
27567         "description": "Accuracy granularity of the exposed value",
27568         "readOnly": true,
27569         "type": "number"
27570     },
27571     "range": {
27572         "description": "The valid range for the value Property",
27573         "items": {
27574             "anyOf": [
27575                 {
27576                     "type": "number"
27577                 },
27578                 {
27579                     "type": "integer"
27580                 }
27581             ]
27582         },
27583         "maxItems": 2,
27584         "minItems": 2,
27585         "readOnly": true,
27586         "type": "array"
27587     },
27588     "rt": {
27589         "description": "Resource Type",
27590         "items": {
27591             "maxLength": 64,
27592             "type": "string"
27593         },
27594         "minItems": 1,
27595         "readOnly": true,
27596         "type": "array"
27597     },
27598     "step": {
27599         "anyOf": [
27600             {
27601                 "type": "integer"
27602             },
27603             {
27604                 "type": "number"
27605             }
27606         ],
27607         "description": "Step value across the defined range",
27608         "readOnly": true
27609     },
27610     "value": {
27611         "anyOf": [
27612             {
27613                 "type": "array"
27614             },
27615             {
27616                 "type": "string"
27617             },
27618             {
27619                 "type": "boolean"
27620             },
27621             {
27622                 "type": "integer"
27623             },
27624             {
27625                 "type": "number"
27626             }

```

```

27627     {
27628         "type": "object"
27629     }
27630 ],
27631 "description": "The value sensed or actuated by this Resource"
27632 }
27633 },
27634 "required": [
27635     "maxheatinglevel",
27636     "heatinglevel"
27637 ],
27638 "type": "object"
27639 }
27640 }
27641 }
27642 }
27643 }

```

27644 **B.48.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
maxheatinglevel	integer	yes	Read Only	Maximum heating level for the zone indicated.
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
heatinglevel	integer	yes	Read Only	Current heating level for the zone indicated.
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource

27645 **B.48.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneResURI		get			

27646 **B.49 Heating Zone Collection**

27647 **B.49.1 Introduction**

27648 This Resource provides information about the status of the heating zones of a Cook-Top.
27649 It describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device
27650 implements pot recognition).
27651 The resource is a collection of instances of oic.r.heatingzone detailing the individual cooktop zones
27652

27653 **B.49.2 Example URI**

27654 /HeatingZoneBaselineResURI

27655 **B.49.3 Resource Type**

27656 The resource type (rt) is defined as: ['oic.r.heatingzonecollection', 'oic.wk.col'].

27657 **B.49.4 Swagger2.0 Definition**

```
27658 {
27659   "swagger": "2.0",
27660   "info": {
27661     "title": "Heating Zone Collection",
27662     "version": "OCF1.0-20160722",
27663     "license": {
27664       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27665       "x-description": "Redistribution and use in source and binary forms, with or without
27666 modification, are permitted provided that the following conditions are met:\n      1.
27667 Redistributions of source code must retain the above copyright notice, this list of conditions and
27668 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
27669 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27670 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
27671 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27672 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27673 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
27674 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27675 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
27676 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
27677 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27678 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27679 OF SUCH DAMAGE.\n"
27680     }
27681   },
27682   "schemes": ["http"],
27683   "consumes": ["application/json"],
27684   "produces": ["application/json"],
27685   "paths": {
27686     "/HeatingZoneLLResURI" : {
27687       "get": {
27688         "description": "This Resource provides information about the status of the heating zones of
27689 a Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
27690 device implements pot recognition).\nThe resource is a collection of instances of oic.r.heatingzone
27691 detailing the individual cooktop zones\n",
27692         "parameters": [
27693           ],
27694         "responses": {
27695           "200": {
27696             "description": "",
27697             "x-example":
27698               [
27699                 { "href": "/myZone1ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
27700 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
27701                 { "href": "/myZone2ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
27702 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
27703                 { "href": "/myZone3ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
27704 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
27705                 { "href": "/myZone4ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
27706 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
27707               ]
27708           }
27709         }
27710       }
27711     }
27712   }
27713 }
```

```

27709         "schema": { "$ref": "#/definitions/HeatingZone-11" }
27710     }
27711 }
27712 }
27713 },
27714 "/HeatingZoneBaselineResURI" : {
27715     "get": {
27716         "description": "This Resource provides information about the status of the heating zones of
27717 a Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
27718 device implements pot recognition).\nThe resource is a collection of instances of oic.r.heatingzone
27719 detailing the individual cooktop zones\nRetrieves the current heating zone information.\n",
27720         "parameters": [
27721             ],
27722         "responses": {
27723             "200": {
27724                 "description": "",
27725                 "x-example":
27726                 {
27727                     "rt": [ "oic.r.heatingzonecollection", "oic.wk.col" ],
27728                     "id": "unique_example_id",
27729                     "links": [
27730                         { "href": "/myZone1ResURI", "rt": [ "oic.r.heatingzone" ], "if":
27731 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] },
27732                         { "href": "/myZone2ResURI", "rt": [ "oic.r.heatingzone" ], "if":
27733 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] },
27734                         { "href": "/myZone3ResURI", "rt": [ "oic.r.heatingzone" ], "if":
27735 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] },
27736                         { "href": "/myZone4ResURI", "rt": [ "oic.r.heatingzone" ], "if":
27737 [ "oic.if.s", "oic.if.baseline" ], "eps": [ { "ep": "coaps://[fe80::b1d6]:1122" } ] }
27738                     ]
27739                 }
27740             },
27741             "schema": { "$ref": "#/definitions/HeatingZone" }
27742         }
27743     }
27744 }
27745 },
27746 },
27747 "parameters": {
27748     "interface-11" : {
27749         "in" : "query",
27750         "name" : "if",
27751         "type" : "string",
27752         "enum" : [ "oic.if.11" ]
27753     },
27754     "interface-baseline" : {
27755         "in" : "query",
27756         "name" : "if",
27757         "type" : "string",
27758         "enum" : [ "oic.if.baseline" ]
27759     },
27760     "interface-all" : {
27761         "in" : "query",
27762         "name" : "if",
27763         "type" : "string",
27764         "enum" : [ "oic.if.11", "oic.if.baseline" ]
27765     }
27766 },
27767 "definitions": {
27768     "HeatingZone-11" : {
27769         "title" :
27770             "Heating Zone Collection Link List Schema (auto merged)"
27771     },
27772     "items" :
27773     {
27774         "$ref": "#/definitions/oic.oic-link"
27775     }
27776 },
27777 "type" :
27778     "array"
27779

```



```

27780     }
27781     ,
27782     "HeatingZone" : {
27783         "properties": {
27784             "rt" :
27785                 {
27786                     "items": {
27787                         "enum": [
27788                             "oic.r.heatingzonecollection",
27789                             "oic.wk.col"
27790                         ]
27791                     },
27792                     "maxItems": 2,
27793                     "minItems": 2,
27794                     "type": "array",
27795                     "uniqueItems": true
27796                 },
27797
27798                 "links" :
27799                     {
27800                         "description": "A set of simple or individual OIC Links.",
27801                         "items": {
27802                             "properties": {
27803                                 "anchor": {
27804                                     "description": "This is used to override the context URI e.g. override the URI of
27805 the containing collection.",
27806                                     "format": "uri",
27807                                     "maxLength": 256,
27808                                     "type": "string"
27809                                 },
27810                                 "di": {
27811                                     "description": "The Device ID formatted according to IETF RFC 4122.",
27812                                     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
27813 9]{12}$",
27814                                     "type": "string"
27815                                 },
27816                                 "eps": {
27817                                     "description": "the Endpoint information of the target Resource",
27818                                     "items": {
27819                                         "properties": {
27820                                             "ep": {
27821                                                 "description": "Transport Protocol Suite + Endpoint Locator",
27822                                                 "format": "uri",
27823                                                 "type": "string"
27824                                             },
27825                                             "pri": {
27826                                                 "description": "The priority among multiple Endpoints",
27827                                                 "minimum": 1,
27828                                                 "type": "integer"
27829                                             }
27830                                         },
27831                                         "type": "object"
27832                                     },
27833                                     "type": "array"
27834                                 },
27835                                 "href": {
27836                                     "description": "This is the target URI, it can be specified as a Relative Reference
27837 or fully-qualified URI.",
27838                                     "format": "uri",
27839                                     "maxLength": 256,
27840                                     "type": "string"
27841                                 },
27842                                 "if": {
27843                                     "description": "The interface set supported by this resource",
27844                                     "items": {
27845                                         "enum": [
27846                                             "oic.if.baseline",
27847                                             "oic.if.ll",
27848                                             "oic.if.b",
27849                                             "oic.if.rw",
27850                                             "oic.if.r",

```

```

27851         "oic.if.a",
27852         "oic.if.s"
27853     ],
27854     "type": "string"
27855 },
27856 "minItems": 1,
27857 "type": "array"
27858 },
27859 "ins": {
27860     "description": "The instance identifier for this web link in an array of web links
- used in collections",
27861     "type": "integer"
27862 },
27863 },
27864 "p": {
27865     "description": "Specifies the framework policies on the Resource referenced by the
target URI",
27866     "properties": {
27867         "bm": {
27868             "description": "Specifies the framework policies on the Resource referenced by
the target URI for e.g. observable and discoverable",
27869             "type": "integer"
27870         }
27871     },
27872 },
27873 },
27874 "required": [
27875     "bm"
27876 ],
27877 "type": "object"
27878 },
27879 "rel": {
27880     "description": "The relation of the target URI referenced by the link to the
context URI",
27881     "oneOf": [
27882         {
27883             "default": [
27884                 "hosts"
27885             ],
27886             "items": {
27887                 "maxLength": 64,
27888                 "type": "string"
27889             },
27890             "minItems": 1,
27891             "type": "array"
27892         },
27893         {
27894             "default": "hosts",
27895             "maxLength": 64,
27896             "type": "string"
27897         }
27898     ]
27899 },
27900 },
27901 "rt": {
27902     "description": "Resource Type of the Resource",
27903     "items": {
27904         "maxLength": 64,
27905         "type": "string"
27906     },
27907     "minItems": 1,
27908     "type": "array"
27909 },
27910 "title": {
27911     "description": "A title for the link relation. Can be used by the UI to provide a
context.",
27912     "maxLength": 64,
27913     "type": "string"
27914 },
27915 },
27916 "type": {
27917     "default": "application/cbor",
27918     "description": "A hint at the representation of the resource referenced by the
target URI. This represents the media types that are used for both accepting and emitting.",
27919     "items": {
27920         "maxLength": 64,

```

```

27922         "type": "string"
27923     },
27924     "minItems": 1,
27925     "type": "array"
27926 }
27927 },
27928 "required": [
27929     "href",
27930     "rt",
27931     "if"
27932 ],
27933 "type": "object"
27934 },
27935 "type": "array"
27936 },
27937
27938 "n" :
27939 {
27940     "description": "Friendly name of the resource",
27941     "maxLength": 64,
27942     "readOnly": true,
27943     "type": "string"
27944 },
27945
27946 "rts" :
27947 {
27948     "items": {
27949         "anyOf": [
27950             {
27951                 "enum": [
27952                     "oic.r.heatingzone",
27953                     "oic.r.value.conditional"
27954                 ]
27955             },
27956             {
27957                 "enum": [
27958                     "oic.r.heatingzone"
27959                 ]
27960             }
27961         ]
27962     },
27963     "maxItems": 2,
27964     "minItems": 1,
27965     "type": "array",
27966     "uniqueItems": true
27967 },
27968
27969 "id" :
27970 {
27971     "description": "Instance ID of this specific resource",
27972     "maxLength": 64,
27973     "readOnly": true,
27974     "type": "string"
27975 },
27976
27977 "if" :
27978 {
27979     "description": "The interface set supported by this resource",
27980     "items": {
27981         "enum": [
27982             "oic.if.baseline",
27983             "oic.if.ll",
27984             "oic.if.b",
27985             "oic.if.lb",
27986             "oic.if.rw",
27987             "oic.if.r",
27988             "oic.if.a",
27989             "oic.if.s"
27990         ],
27991         "type": "string"
27992     },

```

```

27993         "minItems": 1,
27994         "readOnly": true,
27995         "type": "array"
27996     }
27997 }
27998 }
27999 }
28000 , "oic.collection.links.arrayoflinks" :
28001 {
28002     "properties": {
28003         "links": {
28004             "description": "A set of simple or individual OIC Links.",
28005             "items": {
28006                 "properties": {
28007                     "anchor": {
28008                         "description": "This is used to override the context URI e.g. override the URI of
28009 the containing collection.",
28010                         "format": "uri",
28011                         "maxLength": 256,
28012                         "type": "string"
28013                     },
28014                     "di": {
28015                         "description": "The Device ID formatted according to IETF RFC 4122.",
28016                         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
28017 9]{12}$",
28018                         "type": "string"
28019                     },
28020                     "eps": {
28021                         "description": "the Endpoint information of the target Resource",
28022                         "items": {
28023                             "properties": {
28024                                 "ep": {
28025                                     "description": "Transport Protocol Suite + Endpoint Locator",
28026                                     "format": "uri",
28027                                     "type": "string"
28028                                 },
28029                                 "pri": {
28030                                     "description": "The priority among multiple Endpoints",
28031                                     "minimum": 1,
28032                                     "type": "integer"
28033                                 }
28034                             },
28035                             "type": "object"
28036                         },
28037                         "type": "array"
28038                     },
28039                     "href": {
28040                         "description": "This is the target URI, it can be specified as a Relative Reference
28041 or fully-qualified URI.",
28042                         "format": "uri",
28043                         "maxLength": 256,
28044                         "type": "string"
28045                     },
28046                     "if": {
28047                         "description": "The interface set supported by this resource",
28048                         "items": {
28049                             "enum": [
28050                                 "oic.if.baseline",
28051                                 "oic.if.ll",
28052                                 "oic.if.b",
28053                                 "oic.if.rw",
28054                                 "oic.if.r",
28055                                 "oic.if.a",
28056                                 "oic.if.s"
28057                             ],
28058                             "type": "string"
28059                         },
28060                         "minItems": 1,
28061                         "type": "array"
28062                     },
28063                     "ins": {

```

```

28064         "description": "The instance identifier for this web link in an array of web links
28065 - used in collections",
28066         "type": "integer"
28067     },
28068     "p": {
28069         "description": "Specifies the framework policies on the Resource referenced by the
28070 target URI",
28071         "properties": {
28072             "bm": {
28073                 "description": "Specifies the framework policies on the Resource referenced by
28074 the target URI for e.g. observable and discoverable",
28075                 "type": "integer"
28076             }
28077         },
28078         "required": [
28079             "bm"
28080         ],
28081         "type": "object"
28082     },
28083     "rel": {
28084         "description": "The relation of the target URI referenced by the link to the
28085 context URI",
28086         "oneOf": [
28087             {
28088                 "default": [
28089                     "hosts"
28090                 ],
28091                 "items": {
28092                     "maxLength": 64,
28093                     "type": "string"
28094                 },
28095                 "minItems": 1,
28096                 "type": "array"
28097             },
28098             {
28099                 "default": "hosts",
28100                 "maxLength": 64,
28101                 "type": "string"
28102             }
28103         ]
28104     },
28105     "rt": {
28106         "description": "Resource Type of the Resource",
28107         "items": {
28108             "maxLength": 64,
28109             "type": "string"
28110         },
28111         "minItems": 1,
28112         "type": "array"
28113     },
28114     "title": {
28115         "description": "A title for the link relation. Can be used by the UI to provide a
28116 context.",
28117         "maxLength": 64,
28118         "type": "string"
28119     },
28120     "type": {
28121         "default": "application/cbor",
28122         "description": "A hint at the representation of the resource referenced by the
28123 target URI. This represents the media types that are used for both accepting and emitting.",
28124         "items": {
28125             "maxLength": 64,
28126             "type": "string"
28127         },
28128         "minItems": 1,
28129         "type": "array"
28130     }
28131 },
28132 "required": [
28133     "href",
28134     "rt",

```

```

28135         "if"
28136     ],
28137     "type": "object"
28138 },
28139     "type": "array"
28140 }
28141 }
28142 }
28143
28144 , "heatingzonecollection-ll" :
28145     {
28146     "items": {
28147         "$ref": "#/definitions/oic.oic-link"
28148     },
28149     "type": "array"
28150 }
28151
28152 , "oic.core" :
28153     {
28154     "properties": {
28155         "id": {
28156             "description": "Instance ID of this specific resource",
28157             "maxLength": 64,
28158             "readOnly": true,
28159             "type": "string"
28160         },
28161         "if": {
28162             "description": "The interface set supported by this resource",
28163             "items": {
28164                 "enum": [
28165                     "oic.if.baseline",
28166                     "oic.if.ll",
28167                     "oic.if.b",
28168                     "oic.if.lb",
28169                     "oic.if.rw",
28170                     "oic.if.r",
28171                     "oic.if.a",
28172                     "oic.if.s"
28173                 ],
28174                 "type": "string"
28175             },
28176             "minItems": 1,
28177             "readOnly": true,
28178             "type": "array"
28179         },
28180         "n": {
28181             "description": "Friendly name of the resource",
28182             "maxLength": 64,
28183             "readOnly": true,
28184             "type": "string"
28185         },
28186         "rt": {
28187             "description": "Resource Type",
28188             "items": {
28189                 "maxLength": 64,
28190                 "type": "string"
28191             },
28192             "minItems": 1,
28193             "readOnly": true,
28194             "type": "array"
28195         }
28196     },
28197     "type": "object"
28198 }
28199
28200 , "oic.r.heatingzonecollection" :
28201     {
28202     "properties": {
28203         "rt": {
28204             "items": {
28205                 "enum": [

```

```

28206         "oic.r.heatingzonecollection",
28207         "oic.wk.col"
28208     ]
28209 },
28210     "maxItems": 2,
28211     "minItems": 2,
28212     "type": "array",
28213     "uniqueItems": true
28214 },
28215     "rts": {
28216         "items": {
28217             "anyOf": [
28218                 {
28219                     "enum": [
28220                         "oic.r.heatingzone",
28221                         "oic.r.value.conditional"
28222                     ]
28223                 },
28224                 {
28225                     "enum": [
28226                         "oic.r.heatingzone"
28227                     ]
28228                 }
28229             ]
28230         },
28231         "maxItems": 2,
28232         "minItems": 1,
28233         "type": "array",
28234         "uniqueItems": true
28235     },
28236 },
28237     "type": "object"
28238 }
28239
28240     ,"oic.collection.properties" :
28241     {
28242         "description": "A collection is a set of links along with additional properties to describe
28243 the collection itself",
28244         "properties": {
28245             "rts": {
28246                 "$ref": "#/definitions/oic.core/properties/rt",
28247                 "description": "The list of allowable resource types (for Target and anchors) in links
28248 included in the collection"
28249             }
28250         },
28251         "type": "object"
28252     }
28253
28254     ,"oic.oic-link" :
28255     {
28256         "properties": {
28257             "anchor": {
28258                 "description": "This is used to override the context URI e.g. override the URI of the
28259 containing collection.",
28260                 "format": "uri",
28261                 "maxLength": 256,
28262                 "type": "string"
28263             },
28264             "di": {
28265                 "description": "The Device ID formatted according to IETF RFC 4122.",
28266                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
28267 9]{12}$",
28268                 "type": "string"
28269             },
28270             "eps": {
28271                 "description": "the Endpoint information of the target Resource",
28272                 "items": {
28273                     "properties": {
28274                         "ep": {
28275                             "description": "Transport Protocol Suite + Endpoint Locator",
28276                             "format": "uri",

```

```

28277         "type": "string"
28278     },
28279     "pri": {
28280         "description": "The priority among multiple Endpoints",
28281         "minimum": 1,
28282         "type": "integer"
28283     }
28284 },
28285     "type": "object"
28286 },
28287     "type": "array"
28288 },
28289     "href": {
28290         "description": "This is the target URI, it can be specified as a Relative Reference or
28291 fully-qualified URI.",
28292         "format": "uri",
28293         "maxLength": 256,
28294         "type": "string"
28295     },
28296     "if": {
28297         "description": "The interface set supported by this resource",
28298         "items": {
28299             "enum": [
28300                 "oic.if.baseline",
28301                 "oic.if.ll",
28302                 "oic.if.b",
28303                 "oic.if.rw",
28304                 "oic.if.r",
28305                 "oic.if.a",
28306                 "oic.if.s"
28307             ],
28308             "type": "string"
28309         },
28310         "minItems": 1,
28311         "type": "array"
28312     },
28313     "ins": {
28314         "description": "The instance identifier for this web link in an array of web links - used
28315 in collections",
28316         "type": "integer"
28317     },
28318     "p": {
28319         "description": "Specifies the framework policies on the Resource referenced by the target
28320 URI",
28321         "properties": {
28322             "bm": {
28323                 "description": "Specifies the framework policies on the Resource referenced by the
28324 target URI for e.g. observable and discoverable",
28325                 "type": "integer"
28326             }
28327         },
28328         "required": [
28329             "bm"
28330         ],
28331         "type": "object"
28332     },
28333     "rel": {
28334         "description": "The relation of the target URI referenced by the link to the context
28335 URI",
28336         "oneOf": [
28337             {
28338                 "default": [
28339                     "hosts"
28340                 ],
28341                 "items": {
28342                     "maxLength": 64,
28343                     "type": "string"
28344                 },
28345                 "minItems": 1,
28346                 "type": "array"
28347             }

```



```

28348     {
28349         "default": "hosts",
28350         "maxLength": 64,
28351         "type": "string"
28352     }
28353     ]
28354 },
28355 "rt": {
28356     "description": "Resource Type of the Resource",
28357     "items": {
28358         "maxLength": 64,
28359         "type": "string"
28360     },
28361     "minItems": 1,
28362     "type": "array"
28363 },
28364 "title": {
28365     "description": "A title for the link relation. Can be used by the UI to provide a
28366 context.",
28367     "maxLength": 64,
28368     "type": "string"
28369 },
28370 "type": {
28371     "default": "application/cbor",
28372     "description": "A hint at the representation of the resource referenced by the target
28373 URI. This represents the media types that are used for both accepting and emitting.",
28374     "items": {
28375         "maxLength": 64,
28376         "type": "string"
28377     },
28378     "minItems": 1,
28379     "type": "array"
28380 }
28381 },
28382 "required": [
28383     "href",
28384     "rt",
28385     "if"
28386 ],
28387 "type": "object"
28388 }
28389 }
28390 }
28391 }
28392

```

28393 B.49.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
rts	array: see schema		Read Only	Defines the list of allowable

				resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res
links	multiple types: see schema			All forms of links in a collection
rt	array: see schema	yes		
ins	multiple types: see schema			The instance identifier for this web link in an array of web links - used in collections
title	string			A title for the link relation. Can be used by the UI to provide a context
di	string			Unique identifier for device (UUID)
eps	array: see schema			the Endpoint information of the target Resource
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
rel	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
type	array: see schema			A hint at the representation of

				the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting
if	array: schema	see	yes	The interface set supported by this resource
rt	array: schema	see	yes	Resource Type
href	string		yes	This is the target URI, it can be specified as a Relative Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to make it unique.

28394 **B.49.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneBaselineResURI		get			

28395 **B.50 Height**

28396 **B.50.1 Introduction**

28397 This resource describes the properties associated with height of an object's physical size.
 28398 Height (height) is height of an object.
 28399 Retrieves height of an object.
 28400

28401 **B.50.2 Example URI**

28402 /HeightResURI

28403 **B.50.3 Resource Type**

28404 The resource type (rt) is defined as: ['oic.r.height'].

28405 **B.50.4 Swagger2.0 Definition**

```

28406 {
28407   "swagger": "2.0",
28408   "info": {
28409     "title": "Height",
28410     "version": "v1.1.0-20160519",
28411     "license": {
28412       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28413       "x-description": "Redistribution and use in source and binary forms, with or without
28414 modification, are permitted provided that the following conditions are met:\n
28415 1. Redistributions of source code must retain the above copyright notice, this list of conditions and
28416 the following disclaimer.\n
28417 2. Redistributions in binary form must reproduce the above
28418 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
28419 other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT

```

```

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28421 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
28422 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
28423 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
28424 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
28425 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
28426 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
28427 OF SUCH DAMAGE.\n"
28428 }
28429 },
28430 "schemes": ["http"],
28431 "consumes": ["application/json"],
28432 "produces": ["application/json"],
28433 "paths": {
28434   "/HeightResURI" : {
28435     "get": {
28436       "description": "This resource describes the properties associated with height of an
28437 object's physical size.\nHeight (height) is height of an object.\nRetrieves height of an
28438 object.\n",
28439       "parameters": [
28440         { "$ref": "#/parameters/interface" }
28441       ],
28442       "responses": {
28443         "200": {
28444           "description": "",
28445           "x-example":
28446             {
28447               "rt": ["oic.r.height"],
28448               "id": "unique_example_id",
28449               "height": 100.0
28450             }
28451           ,
28452           "schema": { "$ref": "#/definitions/Height" }
28453         }
28454       }
28455     },
28456     "post": {
28457       "description": "Sets the Height.\n",
28458       "parameters": [
28459         { "$ref": "#/parameters/interface" },
28460         {
28461           "name": "body",
28462           "in": "body",
28463           "required": true,
28464           "schema": { "$ref": "#/definitions/Height" },
28465           "x-example":
28466             {
28467               "id": "unique_example_id",
28468               "height": 200.0
28469             }
28470         }
28471       ],
28472       "responses": {
28473         "200": {
28474           "description": "Indicates that the height was successfully changed.\nThe new height
28475 is provided in the response.\n",
28476           "x-example":
28477             {
28478               "id": "unique_example_id",
28479               "height": 200.0
28480             }
28481           ,
28482           "schema": { "$ref": "#/definitions/Height" }
28483         },
28484         "403": {
28485           "description": "Indicates that OIC client sent an invalid property value to the
28486 server.\nThe server responds with the current resource representation.\n",
28487           "x-example":
28488             {
28489               "id": "unique_example_id",
28490               "height": 200.0

```

```

28491         }
28492     },
28493     "schema": { "$ref": "#/definitions/Height" }
28494 }
28495 }
28496 }
28497 }
28498 },
28499 "parameters": {
28500     "interface": {
28501         "in": "query",
28502         "name": "if",
28503         "type": "string",
28504         "enum": ["oic.if.a", "oic.if.baseline"]
28505     }
28506 },
28507 "definitions": {
28508     "Height": {
28509         {
28510             "properties": {
28511                 "height": {
28512                     "description": "Height of an object",
28513                     "minimum": 0,
28514                     "type": "number"
28515                 },
28516                 "id": {
28517                     "description": "Instance ID of this specific resource",
28518                     "maxLength": 64,
28519                     "readOnly": true,
28520                     "type": "string"
28521                 },
28522                 "if": {
28523                     "description": "The interface set supported by this resource",
28524                     "items": {
28525                         "enum": [
28526                             "oic.if.baseline",
28527                             "oic.if.ll",
28528                             "oic.if.b",
28529                             "oic.if.lb",
28530                             "oic.if.rw",
28531                             "oic.if.r",
28532                             "oic.if.a",
28533                             "oic.if.s"
28534                         ],
28535                         "type": "string"
28536                     },
28537                     "minItems": 1,
28538                     "readOnly": true,
28539                     "type": "array"
28540                 },
28541                 "n": {
28542                     "description": "Friendly name of the resource",
28543                     "maxLength": 64,
28544                     "readOnly": true,
28545                     "type": "string"
28546                 },
28547                 "precision": {
28548                     "description": "Accuracy granularity of the exposed value",
28549                     "readOnly": true,
28550                     "type": "number"
28551                 },
28552                 "range": {
28553                     "description": "The valid range for the value Property",
28554                     "items": {
28555                         "anyOf": [
28556                             {
28557                                 "type": "number"
28558                             },
28559                             {
28560                                 "type": "integer"
28561                             }

```

```

28562     ]
28563     },
28564     "maxItems": 2,
28565     "minItems": 2,
28566     "readOnly": true,
28567     "type": "array"
28568   },
28569   "rt": {
28570     "description": "Resource Type",
28571     "items": {
28572       "maxLength": 64,
28573       "type": "string"
28574     },
28575     "minItems": 1,
28576     "readOnly": true,
28577     "type": "array"
28578   },
28579   "step": {
28580     "anyOf": [
28581     {
28582       "type": "integer"
28583     },
28584     {
28585       "type": "number"
28586     }
28587     ],
28588     "description": "Step value across the defined range",
28589     "readOnly": true
28590   },
28591   "value": {
28592     "anyOf": [
28593     {
28594       "type": "array"
28595     },
28596     {
28597       "type": "string"
28598     },
28599     {
28600       "type": "boolean"
28601     },
28602     {
28603       "type": "integer"
28604     },
28605     {
28606       "type": "number"
28607     },
28608     {
28609       "type": "object"
28610     }
28611     ],
28612     "description": "The value sensed or actuated by this Resource"
28613   }
28614 },
28615 "required": [
28616   "height"
28617 ],
28618 "type": "object"
28619 }
28620 }
28621 }
28622 }
28623

```

28624 **B.50.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource

rt	array: see schema		Read Only	Resource Type
height	number	yes		Height of an object
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource

28625 **B.50.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeightResURI		get	post		

28626 **B.51 Humidity**

28627 **B.51.1 Introduction**

28628 This resource describes a sensed or desired humidity.
 28629 The value humidity is an integer describing the percentage measured relative humidity.
 28630 The value desiredHumidity is an integer showing the desired target relative humidity.
 28631 Retrieves the current (relative) humidity level.
 28632

28633 **B.51.2 Example URI**

28634 /HumidityResURI

28635 **B.51.3 Resource Type**

28636 The resource type (rt) is defined as: ['oic.r.humidity'].

28637 **B.51.4 Swagger2.0 Definition**

```

28638 {
28639   "swagger": "2.0",
28640   "info": {
28641     "title": "Humidity",
28642     "version": "v1.1.0-20160519",
28643     "license": {
28644       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28645       "x-description": "Redistribution and use in source and binary forms, with or without
28646 modification, are permitted provided that the following conditions are met:\n      1.
28647 Redistributions of source code must retain the above copyright notice, this list of conditions and
28648 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
28649 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
28650 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
28651 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
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```

```

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28657 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
28658 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
28659 OF SUCH DAMAGE.\n"
28660 }
28661 },
28662 "schemes": ["http"],
28663 "consumes": ["application/json"],
28664 "produces": ["application/json"],
28665 "paths": {
28666   "/HumidityResURI" : {
28667     "get": {
28668       "description": "This resource describes a sensed or desired humidity.\nThe value humidity
28669 is an integer describing the percentage measured relative humidity.\nThe value desiredHumidity is
28670 an integer showing the desired target relative humidity.\nRetrieves the current (relative) humidity
28671 level.\n",
28672       "parameters": [
28673         { "$ref": "#/parameters/interface" }
28674       ],
28675       "responses": {
28676         "200": {
28677           "description": "",
28678           "x-example":
28679             {
28680               "rt":           ["oic.r.humidity"],
28681               "id":          "unique_example_id",
28682               "humidity":    40,
28683               "desiredHumidity": 40
28684             }
28685           ,
28686           "schema": { "$ref": "#/definitions/Humidity" }
28687         }
28688       }
28689     },
28690     "post": {
28691       "description": "Sets the desired relative humidity level.\n",
28692       "parameters": [
28693         { "$ref": "#/parameters/interface" },
28694         {
28695           "name": "body",
28696           "in": "body",
28697           "required": true,
28698           "schema": { "$ref": "#/definitions/HumidityUpdate" },
28699           "x-example":
28700             {
28701               "id":          "unique_example_id",
28702               "desiredHumidity" : 45
28703             }
28704         }
28705       ],
28706       "responses": {
28707         "200": {
28708           "description": "Indicates that the relative humidity level was changed.\nThe new
28709 relative humidity level is provided in the response.\n",
28710           "x-example":
28711             {
28712               "id":          "unique_example_id",
28713               "desiredHumidity": 45
28714             }
28715           ,
28716           "schema": { "$ref": "#/definitions/HumidityUpdate" }
28717         }
28718       }
28719     }
28720   }
28721 },
28722 "parameters": {
28723   "interface" : {
28724     "in" : "query",

```



```

28725     "name" : "if",
28726     "type" : "string",
28727     "enum" : ["oic.if.a", "oic.if.s", "oic.if.baseline"]
28728   }
28729 },
28730 "definitions": {
28731   "Humidity" :
28732     {
28733     "properties": {
28734       "desiredHumidity": {
28735         "description": "Desired value for Humidity",
28736         "maximum": 100,
28737         "minimum": 0,
28738         "type": "integer"
28739       },
28740       "humidity": {
28741         "description": "Current sensed value for Humidity",
28742         "maximum": 100,
28743         "minimum": 0,
28744         "readOnly": true,
28745         "type": "integer"
28746       },
28747       "id": {
28748         "description": "Instance ID of this specific resource",
28749         "maxLength": 64,
28750         "readOnly": true,
28751         "type": "string"
28752       },
28753       "if": {
28754         "description": "The interface set supported by this resource",
28755         "items": {
28756           "enum": [
28757             "oic.if.baseline",
28758             "oic.if.ll",
28759             "oic.if.b",
28760             "oic.if.lb",
28761             "oic.if.rw",
28762             "oic.if.r",
28763             "oic.if.a",
28764             "oic.if.s"
28765           ],
28766           "type": "string"
28767         },
28768         "minItems": 1,
28769         "readOnly": true,
28770         "type": "array"
28771       },
28772       "n": {
28773         "description": "Friendly name of the resource",
28774         "maxLength": 64,
28775         "readOnly": true,
28776         "type": "string"
28777       },
28778       "precision": {
28779         "description": "Accuracy granularity of the exposed value",
28780         "readOnly": true,
28781         "type": "number"
28782       },
28783       "range": {
28784         "description": "The valid range for the value Property",
28785         "items": {
28786           "anyOf": [
28787             {
28788               "type": "number"
28789             },
28790             {
28791               "type": "integer"
28792             }
28793           ]
28794         },
28795         "maxItems": 2,

```

```

28796         "minItems": 2,
28797         "readOnly": true,
28798         "type": "array"
28799     },
28800     "rt": {
28801         "description": "Resource Type",
28802         "items": {
28803             "maxLength": 64,
28804             "type": "string"
28805         },
28806         "minItems": 1,
28807         "readOnly": true,
28808         "type": "array"
28809     },
28810     "step": {
28811         "anyOf": [
28812             {
28813                 "type": "integer"
28814             },
28815             {
28816                 "type": "number"
28817             }
28818         ],
28819         "description": "Step value across the defined range",
28820         "readOnly": true
28821     },
28822     "value": {
28823         "anyOf": [
28824             {
28825                 "type": "array"
28826             },
28827             {
28828                 "type": "string"
28829             },
28830             {
28831                 "type": "boolean"
28832             },
28833             {
28834                 "type": "integer"
28835             },
28836             {
28837                 "type": "number"
28838             },
28839             {
28840                 "type": "object"
28841             }
28842         ],
28843         "description": "The value sensed or actuated by this Resource"
28844     }
28845 },
28846 "required": [
28847     "humidity"
28848 ],
28849 "type": "object"
28850 }
28851
28852 ,
28853 "HumidityUpdate" :
28854 {
28855     "properties": {
28856         "desiredHumidity": {
28857             "description": "Desired value for Humidity",
28858             "maximum": 100,
28859             "minimum": 0,
28860             "type": "integer"
28861         },
28862         "id": {
28863             "description": "Instance ID of this specific resource",
28864             "maxLength": 64,
28865             "readOnly": true,
28866             "type": "string"

```

```

28867     },
28868     "if": {
28869         "description": "The interface set supported by this resource",
28870         "items": {
28871             "enum": [
28872                 "oic.if.baseline",
28873                 "oic.if.ll",
28874                 "oic.if.b",
28875                 "oic.if.lb",
28876                 "oic.if.rw",
28877                 "oic.if.r",
28878                 "oic.if.a",
28879                 "oic.if.s"
28880             ],
28881             "type": "string"
28882         },
28883         "minItems": 1,
28884         "readOnly": true,
28885         "type": "array"
28886     },
28887     "n": {
28888         "description": "Friendly name of the resource",
28889         "maxLength": 64,
28890         "readOnly": true,
28891         "type": "string"
28892     },
28893     "precision": {
28894         "description": "Accuracy granularity of the exposed value",
28895         "readOnly": true,
28896         "type": "number"
28897     },
28898     "range": {
28899         "description": "The valid range for the value Property",
28900         "items": {
28901             "anyOf": [
28902                 {
28903                     "type": "number"
28904                 },
28905                 {
28906                     "type": "integer"
28907                 }
28908             ]
28909         },
28910         "maxItems": 2,
28911         "minItems": 2,
28912         "readOnly": true,
28913         "type": "array"
28914     },
28915     "rt": {
28916         "description": "Resource Type",
28917         "items": {
28918             "maxLength": 64,
28919             "type": "string"
28920         },
28921         "minItems": 1,
28922         "readOnly": true,
28923         "type": "array"
28924     },
28925     "step": {
28926         "anyOf": [
28927             {
28928                 "type": "integer"
28929             },
28930             {
28931                 "type": "number"
28932             }
28933         ],
28934         "description": "Step value across the defined range",
28935         "readOnly": true
28936     },
28937     "value": {

```

```

28938     "anyOf": [
28939       {
28940         "type": "array"
28941       },
28942       {
28943         "type": "string"
28944       },
28945       {
28946         "type": "boolean"
28947       },
28948       {
28949         "type": "integer"
28950       },
28951       {
28952         "type": "number"
28953       },
28954       {
28955         "type": "object"
28956       }
28957     ],
28958     "description": "The value sensed or actuated by this Resource"
28959   },
28960 },
28961 "type": "object"
28962 }
28963 }
28964 }
28965 }
28966 }

```

28967 **B.51.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
desiredHumidity	integer			Desired value for Humidity
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource

id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
humidity	integer	yes	Read Only	Current sensed value for Humidity
precision	number		Read Only	Accuracy granularity of the exposed value
desiredHumidity	integer			Desired value for Humidity
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource

28968 **B.51.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HumidityResURI		get	post		

28969 **B.52 Ice Maker**

28970 **B.52.1 Introduction**

28971 This resource describes the operational state of an Ice Maker.
 28972 The status is a string containing a value from the set of possible ice maker statuses.
 28973 The possible statuses are defined by the enumeration [on, off, full]
 28974 A status of 'on' means that the Ice Maker is operating.
 28975 A status of 'off' means that the Ice Maker is not operating.
 28976 A status of 'full' means that the ice collection bin is full (Ice Maker is operating).
 28977 Retrieves the current Ice Maker status.
 28978

28979 **B.52.2 Example URI**

28980 /IceMakerResURI

28981 **B.52.3 Resource Type**

28982 The resource type (rt) is defined as: ['oic.r.icemaker'].

28983 **B.52.4 Swagger2.0 Definition**

```

28984 {
28985   "swagger": "2.0",
28986   "info": {
28987     "title": "Ice Maker",
28988     "version": "v1.1.0-20160519",
28989     "license": {
28990       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28991       "x-description": "Redistribution and use in source and binary forms, with or without
28992 modification, are permitted provided that the following conditions are met:\n      1.
28993 Redistributions of source code must retain the above copyright notice, this list of conditions and
  
```

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29004 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
29005 OF SUCH DAMAGE.\n"

```

29006     }
29007   },
29008   "schemes": ["http"],
29009   "consumes": ["application/json"],
29010   "produces": ["application/json"],
29011   "paths": {
29012     "/IceMakerResURI" : {
29013       "get": {
29014         "description": "This resource describes an the operational state of an Ice Maker.\nThe
29015 status is a string containing a value from the set of possible ice maker statuses.\nThe possible
29016 statuses are defined by the enumeration [on, off, full]\nA status of 'on' means that the Ice Maker
29017 is operating.\nA status of 'off' means that the Ice Maker is not operating.\nA status of 'full'
29018 means that the ice collection bin is full (Ice Maker is operating).\nRetrieves the current Ice
29019 Maker status.\n",
29020         "parameters": [
29021           { "$ref": "#/parameters/interface" }
29022         ],
29023         "responses": {
29024           "200": {
29025             "description": "",
29026             "x-example":
29027               {
29028                 "rt": ["oic.r.icemaker"],
29029                 "id": "unique_example_id",
29030                 "status": "on"
29031               }
29032             ,
29033             "schema": { "$ref": "#/definitions/IceMaker" }
29034           }
29035         }
29036       },
29037       "post": {
29038         "description": "Sets the desired Ice Maker status.\nOnly valid settings for status in a
29039 Post shall be [on,off].\n",
29040         "parameters": [
29041           { "$ref": "#/parameters/interface" },
29042           {
29043             "name": "body",
29044             "in": "body",
29045             "required": true,
29046             "schema": { "$ref": "#/definitions/IceMakerUpdate" },
29047             "x-example":
29048               {
29049                 "id": "unique_example_id",
29050                 "status": "off"
29051               }
29052           }
29053         ],
29054         "responses": {
29055           "200": {
29056             "description": "Indicates that the Ice Maker status was changed.\nThe new status is
29057 provided in the response.\n",
29058             "x-example":
29059               {
29060                 "id": "unique_example_id",
29061                 "status": "off"
29062               }
29063             ,
29064             "schema": { "$ref": "#/definitions/IceMakerUpdate" }

```

```

29065         },
29066         "403": {
29067             "description" : "This response is generated by the OIC Server when the client
29068 sends:\n An update with an invalid property value for status.\nThe server responds with the
29069 current resource representation.\n",
29070             "x-example":
29071             {
29072                 "id":         "unique_example_id",
29073                 "status": "off"
29074             }
29075         },
29076         "schema": { "$ref": "#/definitions/IceMakerUpdate" }
29077     }
29078 }
29079 }
29080 }
29081 },
29082 "parameters": {
29083     "interface" : {
29084         "in" : "query",
29085         "name" : "if",
29086         "type" : "string",
29087         "enum" : ["oic.if.a", "oic.if.baseline"]
29088     }
29089 },
29090 "definitions": {
29091     "IceMaker" :
29092     {
29093         "properties": {
29094             "id": {
29095                 "description": "Instance ID of this specific resource",
29096                 "maxLength": 64,
29097                 "readOnly": true,
29098                 "type": "string"
29099             },
29100             "if": {
29101                 "description": "The interface set supported by this resource",
29102                 "items": {
29103                     "enum": [
29104                         "oic.if.baseline",
29105                         "oic.if.ll",
29106                         "oic.if.b",
29107                         "oic.if.lb",
29108                         "oic.if.rw",
29109                         "oic.if.x",
29110                         "oic.if.a",
29111                         "oic.if.s"
29112                     ],
29113                     "type": "string"
29114                 },
29115                 "minItems": 1,
29116                 "readOnly": true,
29117                 "type": "array"
29118             },
29119             "n": {
29120                 "description": "Friendly name of the resource",
29121                 "maxLength": 64,
29122                 "readOnly": true,
29123                 "type": "string"
29124             },
29125             "precision": {
29126                 "description": "Accuracy granularity of the exposed value",
29127                 "readOnly": true,
29128                 "type": "number"
29129             },
29130             "range": {
29131                 "description": "The valid range for the value Property",
29132                 "items": {
29133                     "anyOf": [
29134                         {
29135                             "type": "number"

```

```

29136         },
29137         {
29138             "type": "integer"
29139         }
29140     ]
29141 },
29142 "maxItems": 2,
29143 "minItems": 2,
29144 "readOnly": true,
29145 "type": "array"
29146 },
29147 "rt": {
29148     "description": "Resource Type",
29149     "items": {
29150         "maxLength": 64,
29151         "type": "string"
29152     },
29153     "minItems": 1,
29154     "readOnly": true,
29155     "type": "array"
29156 },
29157 "status": {
29158     "description": "Status of the Ice Maker",
29159     "enum": [
29160         "on",
29161         "off",
29162         "full"
29163     ]
29164 },
29165 "step": {
29166     "anyOf": [
29167         {
29168             "type": "integer"
29169         },
29170         {
29171             "type": "number"
29172         }
29173     ],
29174     "description": "Step value across the defined range",
29175     "readOnly": true
29176 },
29177 "value": {
29178     "anyOf": [
29179         {
29180             "type": "array"
29181         },
29182         {
29183             "type": "string"
29184         },
29185         {
29186             "type": "boolean"
29187         },
29188         {
29189             "type": "integer"
29190         },
29191         {
29192             "type": "number"
29193         },
29194         {
29195             "type": "object"
29196         }
29197     ],
29198     "description": "The value sensed or actuated by this Resource"
29199 }
29200 },
29201 "required": [
29202     "status"
29203 ],
29204 "type": "object"
29205 }
29206

```



```

29207     ,
29208     "IceMakerUpdate" :
29209     {
29210         "properties": {
29211             "id": {
29212                 "description": "Instance ID of this specific resource",
29213                 "maxLength": 64,
29214                 "readOnly": true,
29215                 "type": "string"
29216             },
29217             "if": {
29218                 "description": "The interface set supported by this resource",
29219                 "items": {
29220                     "enum": [
29221                         "oic.if.baseline",
29222                         "oic.if.ll",
29223                         "oic.if.b",
29224                         "oic.if.lb",
29225                         "oic.if.rw",
29226                         "oic.if.r",
29227                         "oic.if.a",
29228                         "oic.if.s"
29229                     ],
29230                     "type": "string"
29231                 },
29232                 "minItems": 1,
29233                 "readOnly": true,
29234                 "type": "array"
29235             },
29236             "n": {
29237                 "description": "Friendly name of the resource",
29238                 "maxLength": 64,
29239                 "readOnly": true,
29240                 "type": "string"
29241             },
29242             "precision": {
29243                 "description": "Accuracy granularity of the exposed value",
29244                 "readOnly": true,
29245                 "type": "number"
29246             },
29247             "range": {
29248                 "description": "The valid range for the value Property",
29249                 "items": {
29250                     "anyOf": [
29251                         {
29252                             "type": "number"
29253                         },
29254                         {
29255                             "type": "integer"
29256                         }
29257                     ]
29258                 },
29259                 "maxItems": 2,
29260                 "minItems": 2,
29261                 "readOnly": true,
29262                 "type": "array"
29263             },
29264             "rt": {
29265                 "description": "Resource Type",
29266                 "items": {
29267                     "maxLength": 64,
29268                     "type": "string"
29269                 },
29270                 "minItems": 1,
29271                 "readOnly": true,
29272                 "type": "array"
29273             },
29274             "status": {
29275                 "description": "Set the status of the Ice Maker",
29276                 "enum": [
29277                     "on",

```

```

29278         "off"
29279     ]
29280 },
29281 "step": {
29282     "anyOf": [
29283         {
29284             "type": "integer"
29285         },
29286         {
29287             "type": "number"
29288         }
29289     ],
29290     "description": "Step value across the defined range",
29291     "readOnly": true
29292 },
29293 "value": {
29294     "anyOf": [
29295         {
29296             "type": "array"
29297         },
29298         {
29299             "type": "string"
29300         },
29301         {
29302             "type": "boolean"
29303         },
29304         {
29305             "type": "integer"
29306         },
29307         {
29308             "type": "number"
29309         },
29310         {
29311             "type": "object"
29312         }
29313     ],
29314     "description": "The value sensed or actuated by this Resource"
29315 }
29316 },
29317 "required": [
29318     "status"
29319 ],
29320 "type": "object"
29321 }
29322 }
29323 }
29324 }
29325

```

29326 **B.52.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property

precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
status	multiple types: see schema	yes		Set the status of the Ice Maker
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
status	multiple types: see schema	yes		Status of the Ice Maker
value	multiple types: see schema			The value sensed or actuated by this Resource

29327 **B.52.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/IceMakerResURI		get	post		

29328 **B.53 Illuminance Sensor**

29329 **B.53.1 Introduction**

29330 This resource describes an illuminance sensor.
 29331 Illuminance is a float and represents the sensed luminous flux per unit area in lux.
 29332

29333 **B.53.2 Example URI**

29334 /IlluminanceSensorResURI

29335 **B.53.3 Resource Type**

29336 The resource type (rt) is defined as: ['oic.r.sensor.illuminance'].

29337 **B.53.4 Swagger2.0 Definition**

```
29338 {
29339   "swagger": "2.0",
29340   "info": {
29341     "title": "Illuminance Sensor",
29342     "version": "v1.1.0-20160519",
29343     "license": {
29344       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
29345       "x-description": "Redistribution and use in source and binary forms, with or without
29346 modification, are permitted provided that the following conditions are met:\n      1.
29347 Redistributions of source code must retain the above copyright notice, this list of conditions and
29348 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
29349 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
29350 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
29351 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
29352 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
29353 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
29354 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
29355 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
29356 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
29357 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
29358 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
29359 OF SUCH DAMAGE.\n"
29360     }
29361   },
29362   "schemes": ["http"],
29363   "consumes": ["application/json"],
29364   "produces": ["application/json"],
29365   "paths": {
29366     "/IlluminanceSensorResURI" : {
29367       "get": {
29368         "description": "This resource describes an illuminance sensor.\nIlluminance is a float and
29369 represents the sensed luminous flux per unit area in lux.\n",
29370         "parameters": [
29371           { "$ref": "#/parameters/interface" }
29372         ],
29373         "responses": {
29374           "200": {
29375             "description": "",
29376             "x-example":
29377               {
29378                 "rt": ["oic.r.sensor.illuminance"],
29379                 "id": "unique_example_id",
29380                 "illuminance": 450.0
29381               }
29382             ,
29383             "schema": { "$ref": "#/definitions/Illuminance" }
29384           }
29385         }
29386       }
29387     }
29388   },
29389   "parameters": {
29390     "interface" : {
29391       "in" : "query",
29392       "name" : "if",
29393       "type" : "string",
29394       "enum" : ["oic.if.s", "oic.if.baseline"]
29395     }
29396   },
29397   "definitions": {
29398     "Illuminance" :
29399       {
29400         "properties": {
29401           "id": {
29402             "description": "Instance ID of this specific resource",
29403             "maxLength": 64,
29404             "readOnly": true,
29405             "type": "string"
29406           },

```

```

29407 "if": {
29408   "description": "The interface set supported by this resource",
29409   "items": {
29410     "enum": [
29411       "oic.if.baseline",
29412       "oic.if.ll",
29413       "oic.if.b",
29414       "oic.if.lb",
29415       "oic.if.rw",
29416       "oic.if.r",
29417       "oic.if.a",
29418       "oic.if.s"
29419     ],
29420     "type": "string"
29421   },
29422   "minItems": 1,
29423   "readOnly": true,
29424   "type": "array"
29425 },
29426 "illuminance": {
29427   "description": "Sensed luminous flux per unit area in lux.",
29428   "readOnly": true,
29429   "type": "number"
29430 },
29431 "n": {
29432   "description": "Friendly name of the resource",
29433   "maxLength": 64,
29434   "readOnly": true,
29435   "type": "string"
29436 },
29437 "precision": {
29438   "description": "Accuracy granularity of the exposed value",
29439   "readOnly": true,
29440   "type": "number"
29441 },
29442 "range": {
29443   "description": "The valid range for the value Property",
29444   "items": {
29445     "anyOf": [
29446       {
29447         "type": "number"
29448       },
29449       {
29450         "type": "integer"
29451       }
29452     ]
29453   },
29454   "maxItems": 2,
29455   "minItems": 2,
29456   "readOnly": true,
29457   "type": "array"
29458 },
29459 "rt": {
29460   "description": "Resource Type",
29461   "items": {
29462     "maxLength": 64,
29463     "type": "string"
29464   },
29465   "minItems": 1,
29466   "readOnly": true,
29467   "type": "array"
29468 },
29469 "step": {
29470   "anyOf": [
29471     {
29472       "type": "integer"
29473     },
29474     {
29475       "type": "number"
29476     }
29477   ]

```

```

29478         "description": "Step value across the defined range",
29479         "readOnly": true
29480     },
29481     "value": {
29482         "anyOf": [
29483             {
29484                 "type": "array"
29485             },
29486             {
29487                 "type": "string"
29488             },
29489             {
29490                 "type": "boolean"
29491             },
29492             {
29493                 "type": "integer"
29494             },
29495             {
29496                 "type": "number"
29497             },
29498             {
29499                 "type": "object"
29500             }
29501         ],
29502         "description": "The value sensed or actuated by this Resource"
29503     }
29504 },
29505 "required": [
29506     "illuminance"
29507 ]
29508 }
29509 }
29510 }
29511 }
29512

```

29513 **B.53.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
illuminance	number	yes	Read Only	Sensed luminous flux per unit area in lux.

n	string		Read Only	Friendly name of the resource
---	--------	--	-----------	-------------------------------

29514 **B.53.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/IlluminanceSensorResURI		get			

29515 **B.54 Liquid Level**

29516 **B.54.1 Introduction**

29517 This resource describes the attributes associated with liquid level. The current level and desired
 29518 level are defined in terms of a percentage. The behaviour of when the currentlevel and desiredlevel
 29519 are not equal is determined by the device manufacturer.
 29520 Retrieves the state of the liquid level.
 29521

29522 **B.54.2 Example URI**

29523 /LiquidLevelResURI

29524 **B.54.3 Resource Type**

29525 The resource type (rt) is defined as: ['oic.r.liquid.level'].

29526 **B.54.4 Swagger2.0 Definition**

```

29527 {
29528   "swagger": "2.0",
29529   "info": {
29530     "title": "Liquid Level",
29531     "version": "v1.1.0-20160519",
29532     "license": {
29533       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
29534       "x-description": "Redistribution and use in source and binary forms, with or without
29535 modification, are permitted provided that the following conditions are met:\n      1.
29536 Redistributions of source code must retain the above copyright notice, this list of conditions and
29537 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
29538 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
29539 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
29540 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
29541 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
29542 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
29543 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
29544 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
29545 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
29546 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
29547 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
29548 OF SUCH DAMAGE.\n"
29549     }
29550   },
29551   "schemes": ["http"],
29552   "consumes": ["application/json"],
29553   "produces": ["application/json"],
29554   "paths": {
29555     "/LiquidLevelResURI" : {
29556       "get": {
29557         "description": "This resource describes the attributes associated with liquid level. The
29558 current level and desired level are defined in terms of a percentage. The behaviour of when the
29559 currentlevel and desiredlevel are not equal is determined by the device manufacturer.\nRetrieves
29560 the state of liquid level.\n",
29561         "parameters": [
29562           {"$ref": "#/parameters/interface"}
29563         ],
29564         "responses": {
29565           "200": {
29566             "description": "",
29567             "x-example":
29568             {

```

```

29569         "rt":      ["oic.r.liquid.level"],
29570         "id":      "unique_example_id",
29571         "currentlevel": 60,
29572         "desiredlevel": 80
29573     }
29574     },
29575     "schema": { "$ref": "#/definitions/LiquidLevel" }
29576 }
29577 },
29578 },
29579 "post": {
29580     "description": "Sets liquid level values\n",
29581     "parameters": [
29582         { "$ref": "#/parameters/interface" },
29583         {
29584             "name": "body",
29585             "in": "body",
29586             "required": true,
29587             "schema": { "$ref": "#/definitions/LiquidLevelUpdate" },
29588             "x-example":
29589                 {
29590                     "id":      "unique_example_id",
29591                     "desiredlevel": 80
29592                 }
29593         }
29594     ],
29595     "responses": {
29596         "200": {
29597             "description": "",
29598             "x-example":
29599                 {
29600                     "id":      "unique_example_id",
29601                     "desiredlevel": 80
29602                 }
29603             },
29604             "schema": { "$ref": "#/definitions/LiquidLevelUpdate" }
29605         }
29606     }
29607 },
29608 },
29609 },
29610 "parameters": {
29611     "interface": {
29612         "in": "query",
29613         "name": "if",
29614         "type": "string",
29615         "enum": ["oic.if.rw", "oic.if.r", "oic.if.baseline"]
29616     }
29617 },
29618 "definitions": {
29619     "LiquidLevel":
29620     {
29621         "properties": {
29622             "currentlevel": {
29623                 "description": "The current level of the liquid in percentage.",
29624                 "maximum": 100,
29625                 "minimum": 0,
29626                 "readOnly": true,
29627                 "type": "integer"
29628             },
29629             "desiredlevel": {
29630                 "description": "The desired level of the liquid in percentage.",
29631                 "maximum": 100,
29632                 "minimum": 0,
29633                 "type": "integer"
29634             },
29635             "id": {
29636                 "description": "Instance ID of this specific resource",
29637                 "maxLength": 64,
29638                 "readOnly": true,
29639                 "type": "string"

```



```

29640 },
29641 "if": {
29642   "description": "The interface set supported by this resource",
29643   "items": {
29644     "enum": [
29645       "oic.if.baseline",
29646       "oic.if.ll",
29647       "oic.if.b",
29648       "oic.if.lb",
29649       "oic.if.rw",
29650       "oic.if.r",
29651       "oic.if.a",
29652       "oic.if.s"
29653     ],
29654     "type": "string"
29655   },
29656   "minItems": 1,
29657   "readOnly": true,
29658   "type": "array"
29659 },
29660 "n": {
29661   "description": "Friendly name of the resource",
29662   "maxLength": 64,
29663   "readOnly": true,
29664   "type": "string"
29665 },
29666 "precision": {
29667   "description": "Accuracy granularity of the exposed value",
29668   "readOnly": true,
29669   "type": "number"
29670 },
29671 "range": {
29672   "description": "The valid range for the value Property",
29673   "items": {
29674     "anyOf": [
29675       {
29676         "type": "number"
29677       },
29678       {
29679         "type": "integer"
29680       }
29681     ]
29682   },
29683   "maxItems": 2,
29684   "minItems": 2,
29685   "readOnly": true,
29686   "type": "array"
29687 },
29688 "rt": {
29689   "description": "Resource Type",
29690   "items": {
29691     "maxLength": 64,
29692     "type": "string"
29693   },
29694   "minItems": 1,
29695   "readOnly": true,
29696   "type": "array"
29697 },
29698 "step": {
29699   "anyOf": [
29700     {
29701       "type": "integer"
29702     },
29703     {
29704       "type": "number"
29705     }
29706   ],
29707   "description": "Step value across the defined range",
29708   "readOnly": true
29709 },
29710 "value": {

```

```

29711         "anyOf": [
29712             {
29713                 "type": "array"
29714             },
29715             {
29716                 "type": "string"
29717             },
29718             {
29719                 "type": "boolean"
29720             },
29721             {
29722                 "type": "integer"
29723             },
29724             {
29725                 "type": "number"
29726             },
29727             {
29728                 "type": "object"
29729             }
29730         ],
29731         "description": "The value sensed or actuated by this Resource"
29732     }
29733 },
29734 "required": [
29735     "currentlevel"
29736 ],
29737 "type": "object"
29738 }
29739
29740 /
29741 "LiquidLevelUpdate" :
29742 {
29743     "properties": {
29744         "desiredlevel": {
29745             "description": "The desired level of the liquid in percentage.",
29746             "maximum": 100,
29747             "minimum": 0,
29748             "type": "integer"
29749         },
29750         "id": {
29751             "description": "Instance ID of this specific resource",
29752             "maxLength": 64,
29753             "readOnly": true,
29754             "type": "string"
29755         },
29756         "if": {
29757             "description": "The interface set supported by this resource",
29758             "items": {
29759                 "enum": [
29760                     "oic.if.baseline",
29761                     "oic.if.ll",
29762                     "oic.if.b",
29763                     "oic.if.lb",
29764                     "oic.if.rw",
29765                     "oic.if.r",
29766                     "oic.if.a",
29767                     "oic.if.s"
29768                 ],
29769                 "type": "string"
29770             },
29771             "minItems": 1,
29772             "readOnly": true,
29773             "type": "array"
29774         },
29775         "n": {
29776             "description": "Friendly name of the resource",
29777             "maxLength": 64,
29778             "readOnly": true,
29779             "type": "string"
29780         },
29781         "precision": {

```

```

29782         "description": "Accuracy granularity of the exposed value",
29783         "readOnly": true,
29784         "type": "number"
29785     },
29786     "range": {
29787         "description": "The valid range for the value Property",
29788         "items": {
29789             "anyOf": [
29790                 {
29791                     "type": "number"
29792                 },
29793                 {
29794                     "type": "integer"
29795                 }
29796             ]
29797         },
29798         "maxItems": 2,
29799         "minItems": 2,
29800         "readOnly": true,
29801         "type": "array"
29802     },
29803     "rt": {
29804         "description": "Resource Type",
29805         "items": {
29806             "maxLength": 64,
29807             "type": "string"
29808         },
29809         "minItems": 1,
29810         "readOnly": true,
29811         "type": "array"
29812     },
29813     "step": {
29814         "anyOf": [
29815             {
29816                 "type": "integer"
29817             },
29818             {
29819                 "type": "number"
29820             }
29821         ],
29822         "description": "Step value across the defined range",
29823         "readOnly": true
29824     },
29825     "value": {
29826         "anyOf": [
29827             {
29828                 "type": "array"
29829             },
29830             {
29831                 "type": "string"
29832             },
29833             {
29834                 "type": "boolean"
29835             },
29836             {
29837                 "type": "integer"
29838             },
29839             {
29840                 "type": "number"
29841             },
29842             {
29843                 "type": "object"
29844             }
29845         ],
29846         "description": "The value sensed or actuated by this Resource"
29847     }
29848 },
29849 "required": [
29850     "desiredlevel"
29851 ],
29852 "type": "object"

```

29853 }
 29854 }
 29855 }
 29856 }
 29857 }

29858 **B.54.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
currentlevel	integer	yes	Read Only	The current level of the liquid in percentage.
value	multiple types: see schema			The value sensed or actuated by this Resource
desiredlevel	integer			The desired level of the liquid in percentage.
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
desiredlevel	integer	yes		The desired level of the liquid in percentage.
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource

if	array: schema	see		Read Only	The interface set supported by this resource
precision	number			Read Only	Accuracy granularity of the exposed value
id	string			Read Only	Instance ID of this specific resource

29859 **B.54.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/LiquidLevelResURI		get	post		

29860 **B.55 Lock Code**

29861 **B.55.1 Introduction**

29862 Resource describing a lock code.
 29863 The lockCodeList is an array of possible codes that may be associated with a lock.
 29864 These are all presented as strings.
 29865 Retrieves the current lock code values.
 29866

29867 **B.55.2 Example URI**

29868 /LockCodeResURI

29869 **B.55.3 Resource Type**

29870 The resource type (rt) is defined as: ['oic.r.lock.code'].

29871 **B.55.4 Swagger2.0 Definition**

```

29872 {
29873   "swagger": "2.0",
29874   "info": {
29875     "title": "Lock Code",
29876     "version": "v1.1.0-20160519",
29877     "license": {
29878       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
29879       "x-description": "Redistribution and use in source and binary forms, with or without
29880 modification, are permitted provided that the following conditions are met:\n      1.
29881 Redistributions of source code must retain the above copyright notice, this list of conditions and
29882 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
29883 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
29884 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
29885 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
29886 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
29887 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
29888 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
29889 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
29890 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
29891 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
29892 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
29893 OF SUCH DAMAGE.\n"
29894     }
29895   },
29896   "schemes": ["http"],
29897   "consumes": ["application/json"],
29898   "produces": ["application/json"],
29899   "paths": {
29900     "/LockCodeResURI" : {
29901       "get": {
29902         "description": "Resource describing a lock code.\nThe lockCodeList is an array of possible
29903 codes that may be associated with a lock.\nThese are all presented as strings.\nRetrieves the
29904 current lock code values.\n",

```

```

29905     "parameters": [
29906       { "$ref": "#/parameters/interface" }
29907     ],
29908     "responses": {
29909       "200": {
29910         "description": "",
29911         "x-example":
29912           {
29913             "rt": ["oic.r.lock.code"],
29914             "id": "unique_example_id",
29915             "lockCodeList": ["012345", "112233"]
29916           }
29917         ,
29918         "schema": { "$ref": "#/definitions/LockCode" }
29919       }
29920     }
29921   },
29922   "post": {
29923     "description": "Updates the current lock code values.\n",
29924     "parameters": [
29925       { "$ref": "#/parameters/interface" },
29926       {
29927         "name": "body",
29928         "in": "body",
29929         "required": true,
29930         "schema": { "$ref": "#/definitions/LockCode" },
29931         "x-example":
29932           {
29933             "id": "unique_example_id",
29934             "lockCodeList": ["543210", "332211"]
29935           }
29936       }
29937     ],
29938     "responses": {
29939       "200": {
29940         "description": "",
29941         "x-example":
29942           {
29943             "id": "unique_example_id",
29944             "lockCodeList": ["543210", "332211"]
29945           }
29946         ,
29947         "schema": { "$ref": "#/definitions/LockCode" }
29948       }
29949     }
29950   }
29951 },
29952 },
29953 "parameters": {
29954   "interface": {
29955     "in": "query",
29956     "name": "if",
29957     "type": "string",
29958     "enum": ["oic.if.a", "oic.if.baseline"]
29959   }
29960 },
29961 "definitions": {
29962   "LockCode":
29963     {
29964     "properties": {
29965       "id": {
29966         "description": "Instance ID of this specific resource",
29967         "maxLength": 64,
29968         "readOnly": true,
29969         "type": "string"
29970       },
29971       "if": {
29972         "description": "The interface set supported by this resource",
29973         "items": {
29974           "enum": [
29975             "oic.if.baseline",

```

```

29976         "oic.if.ll",
29977         "oic.if.b",
29978         "oic.if.lb",
29979         "oic.if.rw",
29980         "oic.if.r",
29981         "oic.if.a",
29982         "oic.if.s"
29983     ],
29984     "type": "string"
29985 },
29986     "minItems": 1,
29987     "readOnly": true,
29988     "type": "array"
29989 },
29990     "lockCodeList": {
29991         "items": {
29992             "description": "Value for the lock code",
29993             "type": "string"
29994         },
29995         "type": "array"
29996     },
29997     "n": {
29998         "description": "Friendly name of the resource",
29999         "maxLength": 64,
30000         "readOnly": true,
30001         "type": "string"
30002     },
30003     "precision": {
30004         "description": "Accuracy granularity of the exposed value",
30005         "readOnly": true,
30006         "type": "number"
30007     },
30008     "range": {
30009         "description": "The valid range for the value Property",
30010         "items": {
30011             "anyOf": [
30012                 {
30013                     "type": "number"
30014                 },
30015                 {
30016                     "type": "integer"
30017                 }
30018             ]
30019         },
30020         "maxItems": 2,
30021         "minItems": 2,
30022         "readOnly": true,
30023         "type": "array"
30024     },
30025     "rt": {
30026         "description": "Resource Type",
30027         "items": {
30028             "maxLength": 64,
30029             "type": "string"
30030         },
30031         "minItems": 1,
30032         "readOnly": true,
30033         "type": "array"
30034     },
30035     "step": {
30036         "anyOf": [
30037             {
30038                 "type": "integer"
30039             },
30040             {
30041                 "type": "number"
30042             }
30043         ],
30044         "description": "Step value across the defined range",
30045         "readOnly": true
30046     },

```

```

30047     "value": {
30048       "anyOf": [
30049         {
30050           "type": "array"
30051         },
30052         {
30053           "type": "string"
30054         },
30055         {
30056           "type": "boolean"
30057         },
30058         {
30059           "type": "integer"
30060         },
30061         {
30062           "type": "number"
30063         },
30064         {
30065           "type": "object"
30066         }
30067       ],
30068       "description": "The value sensed or actuated by this Resource"
30069     },
30070   },
30071   "required": [
30072     "lockCodeList"
30073   ],
30074   "type": "object"
30075 }
30076
30077 }
30078 }
30079

```

30080 **B.55.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
lockCodeList	array: see schema	yes		
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

30081 **B.55.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/LockCodeResURI		get	post		

30082 **B.56 Lock**

30083 **B.56.1 Introduction**

30084 Resource describing a lock.
 30085 For the type of lockState, the value 'Locked' indicates that the door is Locked.
 30086 The value 'Unlocked' indicates that the door is Unlocked.
 30087 Retrieves the state of the lock.
 30088

30089 **B.56.2 Example URI**

30090 /LockStatusResURI

30091 **B.56.3 Resource Type**

30092 The resource type (rt) is defined as: ['oic.r.lock.status'].

30093 **B.56.4 Swagger2.0 Definition**

```

30094 {
30095   "swagger": "2.0",
30096   "info": {
30097     "title": "Lock",
30098     "version": "v1.1.0-20160519",
30099     "license": {
30100       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30101       "x-description": "Redistribution and use in source and binary forms, with or without
30102 modification, are permitted provided that the following conditions are met:\n      1.
30103 Redistributions of source code must retain the above copyright notice, this list of conditions and
30104 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30105 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30106 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
30107 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30108 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30109 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
30110 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30111 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30112 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
30113 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30114 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30115 OF SUCH DAMAGE.\n"
30116     }
30117   },
30118   "schemes": ["http"],
30119   "consumes": ["application/json"],
30120   "produces": ["application/json"],
30121   "paths": {
30122     "/LockStatusResURI" : {
30123       "get": {
30124         "description": "Resource describing a lock.\nFor the type of lockState, the value 'Locked'
30125 indicates that the door is Locked.\nThe value 'Unlocked' indicates that the door is
30126 Unlocked.\nRetrieves the state of the lock.\n",
30127         "parameters": [
30128           {"$ref": "#/parameters/interface"}
30129         ],
30130         "responses": {
30131           "200": {
30132             "description": "",
30133             "x-example":
30134               {
30135                 "rt": ["oic.r.lock.status"],
30136                 "id": "unique_example_id",
30137                 "lockState": "Locked"
30138               }
30139           }
30140         }
30141       }
30142     }
30143   }
30144 }
  
```

```

30139         ,
30140         "schema": { "$ref": "#/definitions/Lock" }
30141     }
30142 }
30143 },
30144 "post": {
30145     "description": "Sets the current lock state.\n",
30146     "parameters": [
30147         { "$ref": "#/parameters/interface" },
30148         {
30149             "name": "body",
30150             "in": "body",
30151             "required": true,
30152             "schema": { "$ref": "#/definitions/Lock" },
30153             "x-example":
30154                 {
30155                     "id": "unique_example_id",
30156                     "lockState": "Unlocked"
30157                 }
30158         }
30159     ],
30160     "responses": {
30161         "200": {
30162             "description": "",
30163             "x-example":
30164                 {
30165                     "id": "unique_example_id",
30166                     "lockState": "Unlocked"
30167                 }
30168             ,
30169             "schema": { "$ref": "#/definitions/Lock" }
30170         },
30171         "403": {
30172             "description": "This response is generated by the OIC Server when the client
30173 sends:\n An update with an invalid property value for lockState.\nThe server responds with the
30174 current resource representation.\n",
30175             "x-example":
30176                 {
30177                     "lockState": "Unlocked"
30178                 }
30179             ,
30180             "schema": { "$ref": "#/definitions/Lock" }
30181         }
30182     }
30183 }
30184 },
30185 },
30186 "parameters": {
30187     "interface": {
30188         "in": "query",
30189         "name": "if",
30190         "type": "string",
30191         "enum": ["oic.if.a", "oic.if.baseline"]
30192     }
30193 },
30194 "definitions": {
30195     "Lock": {
30196         {
30197             "properties": {
30198                 "id": {
30199                     "description": "Instance ID of this specific resource",
30200                     "maxLength": 64,
30201                     "readOnly": true,
30202                     "type": "string"
30203                 },
30204                 "if": {
30205                     "description": "The interface set supported by this resource",
30206                     "items": {
30207                         "enum": [
30208                             "oic.if.baseline",
30209                             "oic.if.ll",

```

```

30210         "oic.if.b",
30211         "oic.if.lb",
30212         "oic.if.rw",
30213         "oic.if.r",
30214         "oic.if.a",
30215         "oic.if.s"
30216     ],
30217     "type": "string"
30218 },
30219     "minItems": 1,
30220     "readOnly": true,
30221     "type": "array"
30222 },
30223 "lockState": {
30224     "description": "State of the lock.",
30225     "enum": [
30226         "Locked",
30227         "Unlocked"
30228     ],
30229     "type": "string"
30230 },
30231 "n": {
30232     "description": "Friendly name of the resource",
30233     "maxLength": 64,
30234     "readOnly": true,
30235     "type": "string"
30236 },
30237 "precision": {
30238     "description": "Accuracy granularity of the exposed value",
30239     "readOnly": true,
30240     "type": "number"
30241 },
30242 "range": {
30243     "description": "The valid range for the value Property",
30244     "items": {
30245         "anyOf": [
30246             {
30247                 "type": "number"
30248             },
30249             {
30250                 "type": "integer"
30251             }
30252         ]
30253     },
30254     "maxItems": 2,
30255     "minItems": 2,
30256     "readOnly": true,
30257     "type": "array"
30258 },
30259 "rt": {
30260     "description": "Resource Type",
30261     "items": {
30262         "maxLength": 64,
30263         "type": "string"
30264     },
30265     "minItems": 1,
30266     "readOnly": true,
30267     "type": "array"
30268 },
30269 "step": {
30270     "anyOf": [
30271         {
30272             "type": "integer"
30273         },
30274         {
30275             "type": "number"
30276         }
30277     ],
30278     "description": "Step value across the defined range",
30279     "readOnly": true
30280 },

```

```

30281     "value": {
30282       "anyOf": [
30283         {
30284           "type": "array"
30285         },
30286         {
30287           "type": "string"
30288         },
30289         {
30290           "type": "boolean"
30291         },
30292         {
30293           "type": "integer"
30294         },
30295         {
30296           "type": "number"
30297         },
30298         {
30299           "type": "object"
30300         }
30301       ],
30302       "description": "The value sensed or actuated by this Resource"
30303     },
30304   },
30305   "required": [
30306     "lockState"
30307   ],
30308   "type": "object"
30309 }
30310 }
30311 }
30312 }
30313 }

```

30314 **B.56.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
lockState	string	yes		State of the lock.
if	array: see schema		Read Only	The interface set supported by this resource

30315 **B.56.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

/LockStatusResURI		get	post		
-------------------	--	-----	------	--	--

30316 **B.57 Magnetic Field Direction Sensor**

30317 **B.57.1 Introduction**

30318 This resource describes the direction of the Earth's magnetic field at the observer's current point
30319 in space.
30320 Typical use case includes measurement of compass readings on a personal device.
30321 The value is an array containing Hx, Hy, Hz (in that order) each of which are floats.
30322 Each of Hx, Hy and Hz are expressed in A/m (Amperes per metre)
30323

30324 **B.57.2 Example URI**

30325 /MagneticFieldDirectionResURI

30326 **B.57.3 Resource Type**

30327 The resource type (rt) is defined as: ['oic.r.sensor.magneticfielddirection'].

30328 **B.57.4 Swagger2.0 Definition**

```

30329 {
30330   "swagger": "2.0",
30331   "info": {
30332     "title": "Magnetic Field Direction Sensor",
30333     "version": "v1.1.0-20160519",
30334     "license": {
30335       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30336       "x-description": "Redistribution and use in source and binary forms, with or without
30337 modification, are permitted provided that the following conditions are met:\n      1.
30338 Redistributions of source code must retain the above copyright notice, this list of conditions and
30339 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30340 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30341 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
30342 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30343 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30344 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
30345 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30346 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30347 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
30348 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30349 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30350 OF SUCH DAMAGE.\n"
30351     }
30352   },
30353   "schemes": ["http"],
30354   "consumes": ["application/json"],
30355   "produces": ["application/json"],
30356   "paths": {
30357     "/MagneticFieldDirectionResURI" : {
30358       "get": {
30359         "description": "This resource describes the direction of the Earth's magnetic field at the
30360 observer's current point in space.\nTypical use case includes measurement of compass readings on a
30361 personal device.\nThe value is an array containing Hx, Hy, Hz (in that order) each of which are
30362 floats.\nEach of Hx, Hy and Hz are expressed in A/m (Amperes per metre)\n",
30363         "parameters": [
30364           { "$ref": "#/parameters/interface" }
30365         ],
30366         "responses": {
30367           "200": {
30368             "description": "",
30369             "x-example":
30370             {
30371               "rt": ["oic.r.sensor.magneticfielddirection"],
30372               "id": "unique_example_id",
30373               "value": [100.0,15.0,90.0]
30374             }
30375           }
30376         }
30377       }
30378     }
30379   }

```

```

30376         "schema": { "$ref": "#/definitions/magneticFieldDirection" }
30377     }
30378 }
30379 }
30380 },
30381 },
30382 "parameters": {
30383     "interface" : {
30384         "in" : "query",
30385         "name" : "if",
30386         "type" : "string",
30387         "enum" : ["oic.if.s", "oic.if.baseline"]
30388     }
30389 },
30390 "definitions": {
30391     "magneticFieldDirection" :
30392     {
30393         "properties": {
30394             "id": {
30395                 "description": "Instance ID of this specific resource",
30396                 "maxLength": 64,
30397                 "readOnly": true,
30398                 "type": "string"
30399             },
30400             "if": {
30401                 "description": "The interface set supported by this resource",
30402                 "items": {
30403                     "enum": [
30404                         "oic.if.baseline",
30405                         "oic.if.ll",
30406                         "oic.if.b",
30407                         "oic.if.lb",
30408                         "oic.if.rw",
30409                         "oic.if.r",
30410                         "oic.if.a",
30411                         "oic.if.s"
30412                     ],
30413                     "type": "string"
30414                 },
30415                 "minItems": 1,
30416                 "readOnly": true,
30417                 "type": "array"
30418             },
30419             "n": {
30420                 "description": "Friendly name of the resource",
30421                 "maxLength": 64,
30422                 "readOnly": true,
30423                 "type": "string"
30424             },
30425             "precision": {
30426                 "description": "Accuracy granularity of the exposed value",
30427                 "readOnly": true,
30428                 "type": "number"
30429             },
30430             "range": {
30431                 "description": "The valid range for the value Property",
30432                 "items": {
30433                     "anyOf": [
30434                         {
30435                             "type": "number"
30436                         },
30437                         {
30438                             "type": "integer"
30439                         }
30440                     ]
30441                 },
30442                 "maxItems": 2,
30443                 "minItems": 2,
30444                 "readOnly": true,
30445                 "type": "array"
30446             },

```

```

30447     "rt": {
30448         "description": "Resource Type",
30449         "items": {
30450             "maxLength": 64,
30451             "type": "string"
30452         },
30453         "minItems": 1,
30454         "readOnly": true,
30455         "type": "array"
30456     },
30457     "step": {
30458         "anyOf": [
30459             {
30460                 "type": "integer"
30461             },
30462             {
30463                 "type": "number"
30464             }
30465         ],
30466         "description": "Step value across the defined range",
30467         "readOnly": true
30468     },
30469     "value": {
30470         "description": "Array containing Hx, Hy, Hz.",
30471         "items": {
30472             "type": "number"
30473         },
30474         "maxItems": 3,
30475         "minItems": 3,
30476         "readOnly": true,
30477         "type": "array"
30478     }
30479 },
30480 "required": [
30481     "value"
30482 ]
30483 }
30484
30485 }
30486 }
30487
30488

```

B.57.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
value	array: see schema	yes	Read Only	Array containing Hx, Hy, Hz.
precision	number		Read Only	Accuracy granularity of the exposed value

step	multiple types: see schema		Read Only	Step value across the defined range
------	-------------------------------	--	-----------	---

30489 **B.57.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/MagneticFieldDirectionResURI		get			

30490 **B.58 Media**

30491 **B.58.1 Introduction**

30492 This resource specifies the media types that an OCF Server supports.
 30493 The resource is an array of media elements. Each element contains:
 30494 A URL at which the specified media type can be accessed.
 30495 A string array containing the definition of the media using SDP.
 30496 Each entry in the sdp array is an SDP line.
 30497 Each line shall follow the SDP description syntax as defined in the SDP specification.
 30498 The SDP specification can be found at <http://tools.ietf.org/html/rfc4566>.
 30499 Retrieves the current media resource.
 30500

30501 **B.58.2 Example URI**

30502 /MediaResURI

30503 **B.58.3 Resource Type**

30504 The resource type (rt) is defined as: ['oic.r.media'].

30505 **B.58.4 Swagger2.0 Definition**

```

30506 {
30507   "swagger": "2.0",
30508   "info": {
30509     "title": "Media",
30510     "version": "v1.1.0-20160519",
30511     "license": {
30512       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30513       "x-description": "Redistribution and use in source and binary forms, with or without
30514 modification, are permitted provided that the following conditions are met:\n      1.
30515 Redistributions of source code must retain the above copyright notice, this list of conditions and
30516 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30517 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30518 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
30519 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30520 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30521 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
30522 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30523 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30524 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
30525 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30526 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30527 OF SUCH DAMAGE.\n"
30528     }
30529   },
30530   "schemes": ["http"],
30531   "consumes": ["application/json"],
30532   "produces": ["application/json"],
30533   "paths": {
30534     "/MediaResURI" : {
30535       "get": {
30536         "description": "This resource specifies the media types that an OCF Server supports.\nThe
30537 resource is an array of media elements. Each element contains:\n  A URL at which the specified
30538 media type can be accessed.\n  A string array containing the definition of the media using SDP.\n
30539 Each entry in the sdp array is an SDP line.\n  Each line shall follow the SDP description syntax
30540 as defined in the SDP specification.\nThe SDP specification can be found at
30541 http://tools.ietf.org/html/rfc4566.\nRetrieves the current media resource.\n",

```



```

30542     "parameters": [
30543         { "$ref": "#/parameters/interface" }
30544     ],
30545     "responses": {
30546         "200": {
30547             "description": "",
30548             "x-example":
30549                 {
30550                     "rt": ["oic.r.media"],
30551                     "id": "unique_example_id",
30552                     "media": [
30553                         {
30554                             "url": "some example url",
30555                             "sdp": [
30556                                 "m=video 1 RTP/AVP 96",
30557                                 "a=rtpmap:96 H264/9000",
30558                                 "a=fmtp:96 profile-level-id=42A028;packetization-mode=1"
30559                             ]
30560                         },
30561                         {
30562                             "url": "some other example1 url",
30563                             "sdp": [
30564                                 "m=audio 2 RTP/AVP 97",
30565                                 "a=rtpmap:97 MP4A-LATM/90000"
30566                             ]
30567                         },
30568                         {
30569                             "url": "some other example2 url",
30570                             "sdp": [
30571                                 "m=video 3 RTP/AVP 98",
30572                                 "a=rtpmap:98 jpeg/90000",
30573                                 "a=fmtp:98 sampling=YCbCr-4:2:0;width=256;height=256"
30574                             ]
30575                         }
30576                     ]
30577                 }
30578             ,
30579             "schema": { "$ref": "#/definitions/Media" }
30580         }
30581     }
30582 },
30583 },
30584 },
30585 "parameters": {
30586     "interface": {
30587         "in": "query",
30588         "name": "if",
30589         "type": "string",
30590         "enum": ["oic.if.s", "oic.if.baseline"]
30591     }
30592 },
30593 "definitions": {
30594     "Media": {
30595         {
30596             "properties": {
30597                 "id": {
30598                     "description": "Instance ID of this specific resource",
30599                     "maxLength": 64,
30600                     "readOnly": true,
30601                     "type": "string"
30602                 },
30603                 "if": {
30604                     "description": "The interface set supported by this resource",
30605                     "items": {
30606                         "enum": [
30607                             "oic.if.baseline",
30608                             "oic.if.ll",
30609                             "oic.if.b",
30610                             "oic.if.lb",
30611                             "oic.if.rw",
30612                             "oic.if.r",

```

```

30613         "oic.if.a",
30614         "oic.if.s"
30615     ],
30616     "type": "string"
30617 },
30618 "minItems": 1,
30619 "readOnly": true,
30620 "type": "array"
30621 },
30622 "media": {
30623     "items": {
30624         "properties": {
30625             "sdp": {
30626                 "description": "Array of strings, one per SDP line",
30627                 "items": {
30628                     "description": "SDP media or attribute line",
30629                     "type": "string"
30630                 },
30631                 "type": "array"
30632             },
30633             "url": {
30634                 "description": "url for the media instance",
30635                 "type": "string"
30636             }
30637         },
30638         "type": "object"
30639     },
30640     "type": "array"
30641 },
30642 "n": {
30643     "description": "Friendly name of the resource",
30644     "maxLength": 64,
30645     "readOnly": true,
30646     "type": "string"
30647 },
30648 "precision": {
30649     "description": "Accuracy granularity of the exposed value",
30650     "readOnly": true,
30651     "type": "number"
30652 },
30653 "range": {
30654     "description": "The valid range for the value Property",
30655     "items": {
30656         "anyOf": [
30657             {
30658                 "type": "number"
30659             },
30660             {
30661                 "type": "integer"
30662             }
30663         ]
30664     },
30665     "maxItems": 2,
30666     "minItems": 2,
30667     "readOnly": true,
30668     "type": "array"
30669 },
30670 "rt": {
30671     "description": "Resource Type",
30672     "items": {
30673         "maxLength": 64,
30674         "type": "string"
30675     },
30676     "minItems": 1,
30677     "readOnly": true,
30678     "type": "array"
30679 },
30680 "step": {
30681     "anyOf": [
30682         {
30683             "type": "integer"

```

```

30684     },
30685     {
30686       "type": "number"
30687     }
30688   ],
30689   "description": "Step value across the defined range",
30690   "readOnly": true
30691 },
30692 "value": {
30693   "anyOf": [
30694     {
30695       "type": "array"
30696     },
30697     {
30698       "type": "string"
30699     },
30700     {
30701       "type": "boolean"
30702     },
30703     {
30704       "type": "integer"
30705     },
30706     {
30707       "type": "number"
30708     },
30709     {
30710       "type": "object"
30711     }
30712   ],
30713   "description": "The value sensed or actuated by this Resource"
30714 }
30715 },
30716 "required": [
30717   "media"
30718 ]
30719 }
30720 }
30721 }
30722 }
30723 }

```

B.58.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
media	array: see schema	yes		

step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource

30725 **B.58.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/MediaResURI		get			

30726 **B.59 Media Source**

30727 **B.59.1 Introduction**

30728 This resource defines a media source that exists on a device.
 30729 The source can be an input source or output source, this resource is agnostic of that.
 30730 The sourceName specifies a pre-defined media input or output (e.g."HDMI", "DVI")
 30731 The sourceNumber is a numeric identifier to specify the instance (e.g. "PC", 1)
 30732 The sourceType is an enumeration defining whether the source is audio, video or both.
 30733 The status is a boolean that determines if the specific source instance is selected or not.
 30734 A status of true means that the source instance is selected.
 30735 A status of false means that the source instance is not selected.
 30736

30737 **B.59.2 Example URI**

30738 /mediaSourceResURI

30739 **B.59.3 Resource Type**

30740 The resource type (rt) is defined as: ['oic.r.mediasource'].

30741 **B.59.4 Swagger2.0 Definition**

```

30742 {
30743   "swagger": "2.0",
30744   "info": {
30745     "title": "Media Source",
30746     "version": "v1.1.0-20160519",
30747     "license": {
30748       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30749       "x-description": "Redistribution and use in source and binary forms, with or without
30750 modification, are permitted provided that the following conditions are met:\n      1.
30751 Redistributions of source code must retain the above copyright notice, this list of conditions and
30752 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30753 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30754 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
30755 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30756 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30757 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
30758 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30759 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30760 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
30761 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30762 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30763 OF SUCH DAMAGE.\n"
30764     }
30765   },
30766   "schemes": ["http"],
30767   "consumes": ["application/json"],
30768   "produces": ["application/json"],
30769   "paths": {
30770     "/mediaSourceResURI" : {
30771       "get": {
30772         "description": "This resource defines a media source that exists on a device.\nThe source
30773 can be an input source or output source, this resource is agnostic of that.\nThe sourceName
30774 specifies a pre-defined media input or output (e.g.\\"HDMI\", \\"DVI\")\nThe sourceNumber is a
  
```

```

30775 numeric identifier to specify the instance (e.g. \"PC\", 1)\n\nThe sourceType is an enumeration
30776 defining whether the source is audio, video or both.\n\nThe status is a boolean that determines if
30777 the specific source instance is selected or not.\n\nA status of true means that the source
30778 instance is selected.\n\nA status of false means that the source instance is not selected.\n\n",
30779     "parameters": [
30780         { "$ref": "#/parameters/interface" }
30781     ],
30782     "responses": {
30783         "200": {
30784             "description": "",
30785             "x-example":
30786                 {
30787                     "rt": ["oic.r.mediasource"],
30788                     "id": "unique_example_id",
30789                     "sourceName": "HDMI-CEC",
30790                     "sourceNumber": "1",
30791                     "sourceType": "audioPlusVideo",
30792                     "status": true
30793                 }
30794             ,
30795             "schema": { "$ref": "#/definitions/mediaSource" }
30796         }
30797     },
30798 },
30799 "post": {
30800     "description": "Changes the status of the source.\n\nAllows changes of the sourceName and the
30801 status.\n\n",
30802     "parameters": [
30803         { "$ref": "#/parameters/interface" },
30804         {
30805             "name": "body",
30806             "in": "body",
30807             "required": true,
30808             "schema": { "$ref": "#/definitions/mediaSource" },
30809             "x-example":
30810                 {
30811                     "id": "unique_example_id",
30812                     "sourceName": "my new name",
30813                     "sourceNumber": "1",
30814                     "status": true
30815                 }
30816         }
30817     ],
30818     "responses": {
30819         "200": {
30820             "description": "",
30821             "x-example":
30822                 {
30823                     "id": "unique_example_id",
30824                     "sourceName": "my new name",
30825                     "sourceNumber": "1",
30826                     "status": true
30827                 }
30828             ,
30829             "schema": { "$ref": "#/definitions/mediaSource" }
30830         }
30831     }
30832 },
30833 },
30834 },
30835 "parameters": {
30836     "interface": {
30837         "in": "query",
30838         "name": "if",
30839         "type": "string",
30840         "enum": ["oic.if.a", "oic.if.baseline"]
30841     }
30842 },
30843 "definitions": {
30844     "mediaSource":
30845     {

```

```

30846 "properties": {
30847   "id": {
30848     "description": "Instance ID of this specific resource",
30849     "maxLength": 64,
30850     "readOnly": true,
30851     "type": "string"
30852   },
30853   "if": {
30854     "description": "The interface set supported by this resource",
30855     "items": {
30856       "enum": [
30857         "oic.if.baseline",
30858         "oic.if.ll",
30859         "oic.if.b",
30860         "oic.if.lb",
30861         "oic.if.rw",
30862         "oic.if.r",
30863         "oic.if.a",
30864         "oic.if.s"
30865       ],
30866       "type": "string"
30867     },
30868     "minItems": 1,
30869     "readOnly": true,
30870     "type": "array"
30871   },
30872   "n": {
30873     "description": "Friendly name of the resource",
30874     "maxLength": 64,
30875     "readOnly": true,
30876     "type": "string"
30877   },
30878   "precision": {
30879     "description": "Accuracy granularity of the exposed value",
30880     "readOnly": true,
30881     "type": "number"
30882   },
30883   "range": {
30884     "description": "The valid range for the value Property",
30885     "items": {
30886       "anyOf": [
30887         {
30888           "type": "number"
30889         },
30890         {
30891           "type": "integer"
30892         }
30893       ]
30894     },
30895     "maxItems": 2,
30896     "minItems": 2,
30897     "readOnly": true,
30898     "type": "array"
30899   },
30900   "rt": {
30901     "description": "Resource Type",
30902     "items": {
30903       "maxLength": 64,
30904       "type": "string"
30905     },
30906     "minItems": 1,
30907     "readOnly": true,
30908     "type": "array"
30909   },
30910   "sourceName": {
30911     "description": "Specifies a pre-defined media input or output",
30912     "type": "string"
30913   },
30914   "sourceNumber": {
30915     "description": "Numeric identifier to specify the instance",
30916     "readOnly": true,

```

```

30917         "type": [
30918             "integer",
30919             "string"
30920         ]
30921     },
30922     "sourceType": {
30923         "description": "Specifies the type of the source",
30924         "enum": [
30925             "audioOnly",
30926             "videoOnly",
30927             "audioPlusVideo"
30928         ],
30929         "readOnly": true
30930     },
30931     "status": {
30932         "description": "Specifies if the specific source instance is selected or not",
30933         "type": "boolean"
30934     },
30935     "step": {
30936         "anyOf": [
30937             {
30938                 "type": "integer"
30939             },
30940             {
30941                 "type": "number"
30942             }
30943         ],
30944         "description": "Step value across the defined range",
30945         "readOnly": true
30946     },
30947     "value": {
30948         "anyOf": [
30949             {
30950                 "type": "array"
30951             },
30952             {
30953                 "type": "string"
30954             },
30955             {
30956                 "type": "boolean"
30957             },
30958             {
30959                 "type": "integer"
30960             },
30961             {
30962                 "type": "number"
30963             },
30964             {
30965                 "type": "object"
30966             }
30967         ],
30968         "description": "The value sensed or actuated by this Resource"
30969     }
30970 },
30971 "required": [
30972     "sourceName",
30973     "status"
30974 ]
30975 }
30976 }
30977 }
30978 }
30979

```

30980 B.59.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value

n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
status	boolean	yes		Specifies if the specific source instance is selected or not
sourceName	string	yes		Specifies a pre-defined media input or output
sourceNumber	['integer', 'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property

30981 **B.59.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/mediaSourceResURI		get	post		

30982 **B.60 Media Source List**

30983 **B.60.1 Introduction**

30984 This resource provides the list of media sources available on the device.
30985 The sources are an array of mediaSource(s) as separately defined.
30986 The basic resource type oic.r.mediaSourceList does not provide any indications whether the
30987 source is input or output.
30988 Hence, two specializations of this resource exist.
30989 When a device exposes input sources then an instance of this resource with a resource type of
30990 oic.r.media.input is exposed.
30991 When a device exposes output sources then an instance of this resource with a resource type of
30992 oic.r.media.output is exposed.
30993 A device that exposes both input and output media sources then exposes two instances of this
30994 resource,
30995 one with a resource type of oic.r.media.input and one with a resource type of oic.r.media.output
30996

30997 **B.60.2 Example URI**

30998 /mediaSourceListResURI

30999 **B.60.3 Resource Type**

31000 The resource type (rt) is defined as: ['oic.r.mediasourcelist'].

31001 **B.60.4 Swagger2.0 Definition**

```
31002 {
31003   "swagger": "2.0",
31004   "info": {
31005     "title": "Media Source List",
31006     "version": "v1.1.0-20160519",
31007     "license": {
31008       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
31009       "x-description": "Redistribution and use in source and binary forms, with or without
31010 modification, are permitted provided that the following conditions are met:\n      1.
31011 Redistributions of source code must retain the above copyright notice, this list of conditions and
31012 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
31013 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
31014 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
31015 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
31016 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
31017 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
31018 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
31019 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
31020 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
31021 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31022 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31023 OF SUCH DAMAGE.\n"
31024   }
31025 },
31026 "schemes": ["http"],
31027 "consumes": ["application/json"],
31028 "produces": ["application/json"],
31029 "paths": {
31030   "/mediaSourceListResURI" : {
31031     "get": {
31032       "description": "This resource provides the list of media sources available on the
31033 device.\nThe sources are an array of mediaSource(s) as separately defined.\nThe basic resource type
31034 oic.r.mediaSourceList does not provide any indications whether the source is input or
31035 output.\nHence, two specializations of this resource exist.\nWhen a device exposes input sources
31036 then an instance of this resource with a resource type of oic.r.media.input is exposed.\nWhen a
31037 device exposes output sources then an instance of this resource with a resource type of
31038 oic.r.media.output is exposed.\nA device that exposes both input and output media sources then
31039 exposes two instances of this resource,\none with a resource type or oic.r.media.input and one with
31040 a resource type of oic.r.media.output\n",
31041     "parameters": [
31042       {"$ref": "#/parameters/interface"}
31043     ],
31044     "responses": {
31045       "200": {
31046         "description": "",
31047         "x-example":
31048           {
31049             "rt": ["oic.r.mediasourcelist"],
31050             "id": "unique_example_id",
31051             "sources": [
31052               {
31053                 "sourceName": "HDMI-CEC",
31054                 "sourceNumber": "1",
31055                 "sourceType": "audioPlusVideo",
31056                 "status": true
31057               },
31058               {
31059                 "sourceName": "dualRCA",
31060                 "sourceNumber": "1",
31061                 "sourceType": "audioOnly",
31062                 "status": false
31063               }
31064             ]
31065           }
31066     }
31067   }
31068 }
```

```

31064         ]
31065     }
31066     ,
31067     "schema": { "$ref": "#/definitions/mediaSourceList" }
31068 }
31069 },
31070 ],
31071 "post": {
31072     "description": "Changes the status of the source(s).\nAllows changes of the sourceName and
the status.\n",
31073     "parameters": [
31074         { "$ref": "#/parameters/interface" },
31075         {
31076             "name": "body",
31077             "in": "body",
31078             "required": true,
31079             "schema": { "$ref": "#/definitions/mediaSourceList" },
31080             "x-example":
31081                 {
31082                     "id": "unique_example_id",
31083                     "sources": [
31084                         {
31085                             "sourceName": "my new name",
31086                             "sourceNumber": "1",
31087                             "status": true
31088                         }
31089                     ]
31090                 }
31091         ]
31092     },
31093     ],
31094     "responses": {
31095         "200": {
31096             "description": "",
31097             "x-example":
31098                 {
31099                     "id": "unique_example_id",
31100                     "sources": [
31101                         {
31102                             "sourceName": "my new name",
31103                             "sourceNumber": "1",
31104                             "status": true
31105                         }
31106                     ]
31107                 }
31108             ,
31109             "schema": { "$ref": "#/definitions/mediaSourceList" }
31110         }
31111     }
31112 },
31113 },
31114 },
31115 "parameters": {
31116     "interface": {
31117         "in": "query",
31118         "name": "if",
31119         "type": "string",
31120         "enum": ["oic.if.a", "oic.if.baseline"]
31121     }
31122 },
31123 "definitions": {
31124     "mediaSourceList":
31125     {
31126         "properties": {
31127             "id": {
31128                 "description": "Instance ID of this specific resource",
31129                 "maxLength": 64,
31130                 "readOnly": true,
31131                 "type": "string"
31132             },
31133             "if": {
31134                 "description": "The interface set supported by this resource",

```

```

31135     "items": {
31136         "enum": [
31137             "oic.if.baseline",
31138             "oic.if.ll",
31139             "oic.if.b",
31140             "oic.if.lb",
31141             "oic.if.rw",
31142             "oic.if.r",
31143             "oic.if.a",
31144             "oic.if.s"
31145         ],
31146         "type": "string"
31147     },
31148     "minItems": 1,
31149     "readOnly": true,
31150     "type": "array"
31151 },
31152 "n": {
31153     "description": "Friendly name of the resource",
31154     "maxLength": 64,
31155     "readOnly": true,
31156     "type": "string"
31157 },
31158 "precision": {
31159     "description": "Accuracy granularity of the exposed value",
31160     "readOnly": true,
31161     "type": "number"
31162 },
31163 "range": {
31164     "description": "The valid range for the value Property",
31165     "items": {
31166         "anyOf": [
31167             {
31168                 "type": "number"
31169             },
31170             {
31171                 "type": "integer"
31172             }
31173         ]
31174     },
31175     "maxItems": 2,
31176     "minItems": 2,
31177     "readOnly": true,
31178     "type": "array"
31179 },
31180 "rt": {
31181     "description": "Resource Type",
31182     "items": {
31183         "maxLength": 64,
31184         "type": "string"
31185     },
31186     "minItems": 1,
31187     "readOnly": true,
31188     "type": "array"
31189 },
31190 "sources": {
31191     "items": {
31192         "oneOf": [
31193             {
31194                 "properties": {
31195                     "sourceName": {
31196                         "description": "Specifies a pre-defined media input or output",
31197                         "type": "string"
31198                     },
31199                     "sourceNumber": {
31200                         "description": "Numeric identifier to specify the instance",
31201                         "readOnly": true,
31202                         "type": [
31203                             "integer",
31204                             "string"
31205                         ]

```

```

31206         },
31207         "sourceType": {
31208             "description": "Specifies the type of the source",
31209             "enum": [
31210                 "audioOnly",
31211                 "videoOnly",
31212                 "audioPlusVideo"
31213             ],
31214             "readOnly": true
31215         },
31216         "status": {
31217             "description": "Specifies if the specific source instance is selected or
31218 not",
31219             "type": "boolean"
31220         }
31221     }
31222 }
31223 ]
31224 },
31225 "type": "array"
31226 },
31227 "step": {
31228     "anyOf": [
31229         {
31230             "type": "integer"
31231         },
31232         {
31233             "type": "number"
31234         }
31235     ],
31236     "description": "Step value across the defined range",
31237     "readOnly": true
31238 },
31239 "value": {
31240     "anyOf": [
31241         {
31242             "type": "array"
31243         },
31244         {
31245             "type": "string"
31246         },
31247         {
31248             "type": "boolean"
31249         },
31250         {
31251             "type": "integer"
31252         },
31253         {
31254             "type": "number"
31255         },
31256         {
31257             "type": "object"
31258         }
31259     ],
31260     "description": "The value sensed or actuated by this Resource"
31261 }
31262 },
31263 "required": [
31264     "sources"
31265 ]
31266 }
31267 }
31268 }
31269 }
31270
31271

```

B.60.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		

rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource

31272 **B.60.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/mediaSourceListResURI		get	post		

31273 **B.61 Media Source Input**

31274 **B.61.1 Introduction**

31275 This resource provides the list of input media sources available on the device.
 31276 The sources are an array of mediaSource(s) as separately defined.
 31277

31278 **B.61.2 Example URI**

31279 /mediaSourceInputResURI

31280 **B.61.3 Resource Type**

31281 The resource type (rt) is defined as: ['oic.r.media.input'].

31282 **B.61.4 Swagger2.0 Definition**

```

31283 {
31284   "swagger": "2.0",
31285   "info": {
31286     "title": "Media Source Input",
31287     "version": "v1.1.0-20160519",
31288     "license": {
31289       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
31290       "x-description": "Redistribution and use in source and binary forms, with or without
31291 modification, are permitted provided that the following conditions are met:\n
31292 1.
31293 Redistributions of source code must retain the above copyright notice, this list of conditions and
31294 the following disclaimer.\n
31295 2. Redistributions in binary form must reproduce the above
31296 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
31297 other materials provided with the distribution.\n\n
31298 THIS SOFTWARE IS PROVIDED BY THE Open
31299 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
31300 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
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31302 IN NO EVENT SHALL THE Open Connectivity
31303 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,

```

```

31300 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
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31302 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31303 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31304 OF SUCH DAMAGE.\n"
31305 }
31306 },
31307 "schemes": ["http"],
31308 "consumes": ["application/json"],
31309 "produces": ["application/json"],
31310 "paths": {
31311   "/mediaSourceInputResURI" : {
31312     "get": {
31313       "description": "This resource provides the list of input media sources available on the
31314 device.\n\nThe sources are an array of mediaSource(s) as separately defined.\n",
31315       "parameters": [
31316         { "$ref": "#/parameters/interface" }
31317       ],
31318       "responses": {
31319         "200": {
31320           "description": "",
31321           "x-example":
31322             {
31323               "rt": ["oic.r.media.input"],
31324               "id": "unique_example_id",
31325               "sources": [
31326                 {
31327                   "sourceName": "HDMI-CEC",
31328                   "sourceNumber": "1",
31329                   "sourceType": "audioPlusVideo",
31330                   "status": true
31331                 },
31332                 {
31333                   "sourceName": "dualRCA",
31334                   "sourceNumber": "1",
31335                   "sourceType": "audioOnly",
31336                   "status": false
31337                 }
31338               ]
31339             }
31340           ,
31341           "schema": { "$ref": "#/definitions/mediaSourceList" }
31342         }
31343       }
31344     },
31345     "post": {
31346       "description": "Changes the status of the source(s).\n\nAllows changes of the sourceName and
31347 the status.\n",
31348       "parameters": [
31349         { "$ref": "#/parameters/interface" },
31350         {
31351           "name": "body",
31352           "in": "body",
31353           "required": true,
31354           "schema": { "$ref": "#/definitions/mediaSourceList" },
31355           "x-example":
31356             {
31357               "id": "unique_example_id",
31358               "sources": [
31359                 {
31360                   "sourceName": "my new name",
31361                   "sourceNumber": "1",
31362                   "status": true
31363                 }
31364               ]
31365             }
31366         }
31367       ],
31368       "responses": {
31369         "200": {
31370           "description": "",

```

```

31371         "x-example":
31372         {
31373             "id": "unique_example_id",
31374             "sources": [
31375                 {
31376                     "sourceName": "my new name",
31377                     "sourceNumber": "1",
31378                     "status": true
31379                 }
31380             ]
31381         }
31382     ,
31383     "schema": { "$ref": "#/definitions/mediaSourceList" }
31384 }
31385 }
31386 }
31387 }
31388 },
31389 "parameters": {
31390     "interface" : {
31391         "in" : "query",
31392         "name" : "if",
31393         "type" : "string",
31394         "enum" : ["oic.if.a", "oic.if.baseline"]
31395     }
31396 },
31397 "definitions": {
31398     "mediaSourceList" :
31399     {
31400         "properties": {
31401             "id": {
31402                 "description": "Instance ID of this specific resource",
31403                 "maxLength": 64,
31404                 "readOnly": true,
31405                 "type": "string"
31406             },
31407             "if": {
31408                 "description": "The interface set supported by this resource",
31409                 "items": {
31410                     "enum": [
31411                         "oic.if.baseline",
31412                         "oic.if.ll",
31413                         "oic.if.b",
31414                         "oic.if.lb",
31415                         "oic.if.rw",
31416                         "oic.if.r",
31417                         "oic.if.a",
31418                         "oic.if.s"
31419                     ],
31420                     "type": "string"
31421                 },
31422                 "minItems": 1,
31423                 "readOnly": true,
31424                 "type": "array"
31425             },
31426             "n": {
31427                 "description": "Friendly name of the resource",
31428                 "maxLength": 64,
31429                 "readOnly": true,
31430                 "type": "string"
31431             },
31432             "precision": {
31433                 "description": "Accuracy granularity of the exposed value",
31434                 "readOnly": true,
31435                 "type": "number"
31436             },
31437             "range": {
31438                 "description": "The valid range for the value Property",
31439                 "items": {
31440                     "anyOf": [
31441

```

```

31442         "type": "number"
31443     },
31444     {
31445         "type": "integer"
31446     }
31447 ]
31448 },
31449 "maxItems": 2,
31450 "minItems": 2,
31451 "readOnly": true,
31452 "type": "array"
31453 },
31454 "rt": {
31455     "description": "Resource Type",
31456     "items": {
31457         "maxLength": 64,
31458         "type": "string"
31459     },
31460     "minItems": 1,
31461     "readOnly": true,
31462     "type": "array"
31463 },
31464 "sources": {
31465     "items": {
31466         "oneOf": [
31467             {
31468                 "properties": {
31469                     "sourceName": {
31470                         "description": "Specifies a pre-defined media input or output",
31471                         "type": "string"
31472                     },
31473                     "sourceNumber": {
31474                         "description": "Numeric identifier to specify the instance",
31475                         "readOnly": true,
31476                         "type": [
31477                             "integer",
31478                             "string"
31479                         ]
31480                     },
31481                     "sourceType": {
31482                         "description": "Specifies the type of the source",
31483                         "enum": [
31484                             "audioOnly",
31485                             "videoOnly",
31486                             "audioPlusVideo"
31487                         ],
31488                         "readOnly": true
31489                     },
31490                     "status": {
31491                         "description": "Specifies if the specific source instance is selected or
31492 not",
31493                         "type": "boolean"
31494                     }
31495                 }
31496             }
31497         ]
31498     },
31499     "type": "array"
31500 },
31501 "step": {
31502     "anyOf": [
31503         {
31504             "type": "integer"
31505         },
31506         {
31507             "type": "number"
31508         }
31509     ],
31510     "description": "Step value across the defined range",
31511     "readOnly": true
31512 },

```



```

31513     "value": {
31514         "anyOf": [
31515             {
31516                 "type": "array"
31517             },
31518             {
31519                 "type": "string"
31520             },
31521             {
31522                 "type": "boolean"
31523             },
31524             {
31525                 "type": "integer"
31526             },
31527             {
31528                 "type": "number"
31529             },
31530             {
31531                 "type": "object"
31532             }
31533         ],
31534         "description": "The value sensed or actuated by this Resource"
31535     },
31536 },
31537 "required": [
31538     "sources"
31539 ]
31540 }
31541 }
31542 }
31543 }
31544 }

```

31545 **B.61.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
sources	array: see schema	yes		
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource

31546 **B.61.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/mediaSourceInputResURI		get	post		

31547 **B.62 Media Source Output**

31548 **B.62.1 Introduction**

31549 This resource provides the list of output media sources available on the device.
 31550 The sources are an array of mediaSource(s) as separately defined.
 31551

31552 **B.62.2 Example URI**

31553 /mediaSourceOutputResURI

31554 **B.62.3 Resource Type**

31555 The resource type (rt) is defined as: ['oic.r.media.output'].

31556 **B.62.4 Swagger2.0 Definition**

```

31557 {
31558   "swagger": "2.0",
31559   "info": {
31560     "title": "Media Source Output",
31561     "version": "v1.1.0-20160519",
31562     "license": {
31563       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
31564       "x-description": "Redistribution and use in source and binary forms, with or without
31565 modification, are permitted provided that the following conditions are met:\n      1.
31566 Redistributions of source code must retain the above copyright notice, this list of conditions and
31567 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
31568 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
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31570 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
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31572 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
31573 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
31574 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
31575 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
31576 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31577 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31578 OF SUCH DAMAGE.\n"
31579     }
31580   },
31581   "schemes": ["http"],
31582   "consumes": ["application/json"],
31583   "produces": ["application/json"],
31584   "paths": {
31585     "/mediaSourceOutputResURI" : {
31586       "get": {
31587         "description": "This resource provides the list of output media sources available on the
31588 device.\nThe sources are an array of mediaSource(s) as separately defined.\n",
31589         "parameters": [
31590           {"$ref": "#/parameters/interface"}
31591         ],
31592         "responses": {
31593           "200": {
31594             "description": "",
31595             "x-example":
31596             {
31597               "rt": ["oic.r.media.output"],
31598               "id": "unique_example_id",
31599               "sources": [
31600                 {
31601                   "sourceName": "HDMI-CEC",
31602                   "sourceNumber": "1",
31603                   "sourceType": "audioPlusVideo",
31604                   "status": true

```

```

31605         },
31606         {
31607             "sourceName": "dualRCA",
31608             "sourceNumber": "1",
31609             "sourceType": "audioOnly",
31610             "status": false
31611         }
31612     ]
31613 }
31614 ,
31615     "schema": { "$ref": "#/definitions/mediaSourceList" }
31616 }
31617 },
31618 },
31619 "post": {
31620     "description": "Changes the status of the source(s).\nAllows changes of the sourceName and
31621 the status.\n",
31622     "parameters": [
31623         { "$ref": "#/parameters/interface" },
31624         {
31625             "name": "body",
31626             "in": "body",
31627             "required": true,
31628             "schema": { "$ref": "#/definitions/mediaSourceList" },
31629             "x-example":
31630                 {
31631                     "id": "unique_example_id",
31632                     "sources": [
31633                         {
31634                             "sourceName": "my new name",
31635                             "sourceNumber": "1",
31636                             "status": true
31637                         }
31638                     ]
31639                 }
31640         }
31641     ],
31642     "responses": {
31643         "200": {
31644             "description": "",
31645             "x-example":
31646                 {
31647                     "id": "unique_example_id",
31648                     "sources": [
31649                         {
31650                             "sourceName": "my new name",
31651                             "sourceNumber": "1",
31652                             "status": true
31653                         }
31654                     ]
31655                 }
31656         },
31657         "schema": { "$ref": "#/definitions/mediaSourceList" }
31658     }
31659 }
31660 },
31661 },
31662 },
31663 "parameters": {
31664     "interface": {
31665         "in": "query",
31666         "name": "if",
31667         "type": "string",
31668         "enum": ["oic.if.a", "oic.if.baseline"]
31669     }
31670 },
31671 "definitions": {
31672     "mediaSourceList": {
31673         {
31674             "properties": {
31675                 "id": {

```

```

31676         "description": "Instance ID of this specific resource",
31677         "maxLength": 64,
31678         "readOnly": true,
31679         "type": "string"
31680     },
31681     "if": {
31682         "description": "The interface set supported by this resource",
31683         "items": {
31684             "enum": [
31685                 "oic.if.baseline",
31686                 "oic.if.ll",
31687                 "oic.if.b",
31688                 "oic.if.lb",
31689                 "oic.if.rw",
31690                 "oic.if.r",
31691                 "oic.if.a",
31692                 "oic.if.s"
31693             ],
31694             "type": "string"
31695         },
31696         "minItems": 1,
31697         "readOnly": true,
31698         "type": "array"
31699     },
31700     "n": {
31701         "description": "Friendly name of the resource",
31702         "maxLength": 64,
31703         "readOnly": true,
31704         "type": "string"
31705     },
31706     "precision": {
31707         "description": "Accuracy granularity of the exposed value",
31708         "readOnly": true,
31709         "type": "number"
31710     },
31711     "range": {
31712         "description": "The valid range for the value Property",
31713         "items": {
31714             "anyOf": [
31715                 {
31716                     "type": "number"
31717                 },
31718                 {
31719                     "type": "integer"
31720                 }
31721             ]
31722         },
31723         "maxItems": 2,
31724         "minItems": 2,
31725         "readOnly": true,
31726         "type": "array"
31727     },
31728     "rt": {
31729         "description": "Resource Type",
31730         "items": {
31731             "maxLength": 64,
31732             "type": "string"
31733         },
31734         "minItems": 1,
31735         "readOnly": true,
31736         "type": "array"
31737     },
31738     "sources": {
31739         "items": {
31740             "oneOf": [
31741                 {
31742                     "properties": {
31743                         "sourceName": {
31744                             "description": "Specifies a pre-defined media input or output",
31745                             "type": "string"
31746

```

```

31747         "sourceNumber": {
31748             "description": "Numeric identifier to specify the instance",
31749             "readOnly": true,
31750             "type": [
31751                 "integer",
31752                 "string"
31753             ]
31754         },
31755         "sourceType": {
31756             "description": "Specifies the type of the source",
31757             "enum": [
31758                 "audioOnly",
31759                 "videoOnly",
31760                 "audioPlusVideo"
31761             ],
31762             "readOnly": true
31763         },
31764         "status": {
31765             "description": "Specifies if the specific source instance is selected or
31766 not",
31767             "type": "boolean"
31768         }
31769     }
31770 }
31771 ]
31772 },
31773 "type": "array"
31774 },
31775 "step": {
31776     "anyOf": [
31777         {
31778             "type": "integer"
31779         },
31780         {
31781             "type": "number"
31782         }
31783     ],
31784     "description": "Step value across the defined range",
31785     "readOnly": true
31786 },
31787 "value": {
31788     "anyOf": [
31789         {
31790             "type": "array"
31791         },
31792         {
31793             "type": "string"
31794         },
31795         {
31796             "type": "boolean"
31797         },
31798         {
31799             "type": "integer"
31800         },
31801         {
31802             "type": "number"
31803         },
31804         {
31805             "type": "object"
31806         }
31807     ],
31808     "description": "The value sensed or actuated by this Resource"
31809 }
31810 },
31811 "required": [
31812     "sources"
31813 ]
31814 }
31815 }
31816 }

```

31817 }
 31818

31819 **B.62.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

31820 **B.62.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/mediaSourceOutputResURI		get	post		

31821 **B.63 Mode**

31822 **B.63.1 Introduction**

31823 This resource describes the modes of operation that a device can provide.
 31824 The mode can be read or set.
 31825 The supportedModes is an array of possible modes the device supports.
 31826 The modes are an array of the currently active mode(s).
 31827 Retrieves the current mode.
 31828

31829 **B.63.2 Example URI**

31830 /ModeResURI

31831 **B.63.3 Resource Type**

31832 The resource type (rt) is defined as: ['oic.r.mode'].

31833 **B.63.4 Swagger2.0 Definition**

```
31834 {
31835   "swagger": "2.0",
31836   "info": {
31837     "title": "Mode",
31838     "version": "v1.1.0-20160519",
```

```

31839     "license": {
31840         "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
31841         "x-description": "Redistribution and use in source and binary forms, with or without
31842 modification, are permitted provided that the following conditions are met:\n      1.
31843 Redistributions of source code must retain the above copyright notice, this list of conditions and
31844 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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31853 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31854 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31855 OF SUCH DAMAGE.\n"
31856     }
31857 },
31858 "schemes": ["http"],
31859 "consumes": ["application/json"],
31860 "produces": ["application/json"],
31861 "paths": {
31862     "/ModeResURI" : {
31863         "get": {
31864             "description": "This resource describes the modes of operation that a device can
31865 provide.\nThe mode can be read or set.\nThe supportedModes is an array of possible modes the device
31866 supports.\nThe modes are an array of the currently active mode(s).\nRetrieves the current mode.\n",
31867             "parameters": [
31868                 { "$ref": "#/parameters/interface" }
31869             ],
31870             "responses": {
31871                 "200": {
31872                     "description": "",
31873                     "x-example":
31874                         {
31875                             "rt": ["oic.r.mode"],
31876                             "id": "unique_example_id",
31877                             "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
31878                             "modes": ["active"]
31879                         }
31880                 },
31881                 "schema": { "$ref": "#/definitions/Mode" }
31882             }
31883         }
31884     },
31885     "post": {
31886         "description": "Sets the desired mode.\n",
31887         "parameters": [
31888             { "$ref": "#/parameters/interface" },
31889             {
31890                 "name": "body",
31891                 "in": "body",
31892                 "required": true,
31893                 "schema": { "$ref": "#/definitions/ModeUpdate" },
31894                 "x-example":
31895                     {
31896                         "id": "unique_example_id",
31897                         "modes": ["armedAway"]
31898                     }
31899             }
31900         ],
31901         "responses": {
31902             "200": {
31903                 "description": "",
31904                 "x-example":
31905                     {
31906                         "id": "unique_example_id",
31907                         "modes": ["armedAway"]
31908                     }
31909             },

```

```

31910         "schema": { "$ref": "#/definitions/ModeUpdate" }
31911     },
31912     "403": {
31913         "description": "This response is generated by the OIC Server when the client
31914 sends:\n An update with an value for mode that is not found in supportedModes.\nThe server
31915 responds with the current resource representation.\n",
31916         "x-example":
31917             {
31918                 "id": "unique_example_id",
31919                 "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
31920                 "modes": ["active"]
31921             }
31922     },
31923     "schema": { "$ref": "#/definitions/Mode" }
31924 }
31925 }
31926 }
31927 }
31928 },
31929 "parameters": {
31930     "interface" : {
31931         "in" : "query",
31932         "name" : "if",
31933         "type" : "string",
31934         "enum" : ["oic.if.a", "oic.if.baseline"]
31935     }
31936 },
31937 "definitions": {
31938     "Mode" :
31939     {
31940         "properties": {
31941             "id": {
31942                 "description": "Instance ID of this specific resource",
31943                 "maxLength": 64,
31944                 "readOnly": true,
31945                 "type": "string"
31946             },
31947             "if": {
31948                 "description": "The interface set supported by this resource",
31949                 "items": {
31950                     "enum": [
31951                         "oic.if.baseline",
31952                         "oic.if.ll",
31953                         "oic.if.b",
31954                         "oic.if.lb",
31955                         "oic.if.rw",
31956                         "oic.if.x",
31957                         "oic.if.a",
31958                         "oic.if.s"
31959                     ],
31960                     "type": "string"
31961                 },
31962                 "minItems": 1,
31963                 "readOnly": true,
31964                 "type": "array"
31965             },
31966             "modes": {
31967                 "description": "Array of the currently active mode(s)",
31968                 "items": {
31969                     "type": "string"
31970                 },
31971                 "type": "array"
31972             },
31973             "n": {
31974                 "description": "Friendly name of the resource",
31975                 "maxLength": 64,
31976                 "readOnly": true,
31977                 "type": "string"
31978             },
31979             "precision": {
31980                 "description": "Accuracy granularity of the exposed value",

```



```

31981         "readOnly": true,
31982         "type": "number"
31983     },
31984     "range": {
31985         "description": "The valid range for the value Property",
31986         "items": {
31987             "anyOf": [
31988                 {
31989                     "type": "number"
31990                 },
31991                 {
31992                     "type": "integer"
31993                 }
31994             ]
31995         },
31996         "maxItems": 2,
31997         "minItems": 2,
31998         "readOnly": true,
31999         "type": "array"
32000     },
32001     "rt": {
32002         "description": "Resource Type",
32003         "items": {
32004             "maxLength": 64,
32005             "type": "string"
32006         },
32007         "minItems": 1,
32008         "readOnly": true,
32009         "type": "array"
32010     },
32011     "step": {
32012         "anyOf": [
32013             {
32014                 "type": "integer"
32015             },
32016             {
32017                 "type": "number"
32018             }
32019         ],
32020         "description": "Step value across the defined range",
32021         "readOnly": true
32022     },
32023     "supportedModes": {
32024         "description": "Array of possible modes the device supports.",
32025         "items": {
32026             "type": "string"
32027         },
32028         "readOnly": true,
32029         "type": "array"
32030     },
32031     "value": {
32032         "anyOf": [
32033             {
32034                 "type": "array"
32035             },
32036             {
32037                 "type": "string"
32038             },
32039             {
32040                 "type": "boolean"
32041             },
32042             {
32043                 "type": "integer"
32044             },
32045             {
32046                 "type": "number"
32047             },
32048             {
32049                 "type": "object"
32050             }
32051         ],

```

```

32052         "description": "The value sensed or actuated by this Resource"
32053     },
32054 },
32055 "required": [
32056     "supportedModes",
32057     "modes"
32058 ],
32059 "type": "object"
32060 }
32061
32062 ,
32063 "ModeUpdate" :
32064     {
32065     "properties": {
32066         "id": {
32067             "description": "Instance ID of this specific resource",
32068             "maxLength": 64,
32069             "readOnly": true,
32070             "type": "string"
32071         },
32072         "if": {
32073             "description": "The interface set supported by this resource",
32074             "items": {
32075                 "enum": [
32076                     "oic.if.baseline",
32077                     "oic.if.ll",
32078                     "oic.if.b",
32079                     "oic.if.lb",
32080                     "oic.if.rw",
32081                     "oic.if.r",
32082                     "oic.if.a",
32083                     "oic.if.s"
32084                 ],
32085                 "type": "string"
32086             },
32087             "minItems": 1,
32088             "readOnly": true,
32089             "type": "array"
32090         },
32091         "modes": {
32092             "description": "Desired mode",
32093             "items": {
32094                 "type": "string"
32095             },
32096             "type": "array"
32097         },
32098         "n": {
32099             "description": "Friendly name of the resource",
32100             "maxLength": 64,
32101             "readOnly": true,
32102             "type": "string"
32103         },
32104         "precision": {
32105             "description": "Accuracy granularity of the exposed value",
32106             "readOnly": true,
32107             "type": "number"
32108         },
32109         "range": {
32110             "description": "The valid range for the value Property",
32111             "items": {
32112                 "anyOf": [
32113                     {
32114                         "type": "number"
32115                     },
32116                     {
32117                         "type": "integer"
32118                     }
32119                 ]
32120             },
32121             "maxItems": 2,
32122             "minItems": 2,

```

```

32123         "readOnly": true,
32124         "type": "array"
32125     },
32126     "rt": {
32127         "description": "Resource Type",
32128         "items": {
32129             "maxLength": 64,
32130             "type": "string"
32131         },
32132         "minItems": 1,
32133         "readOnly": true,
32134         "type": "array"
32135     },
32136     "step": {
32137         "anyOf": [
32138             {
32139                 "type": "integer"
32140             },
32141             {
32142                 "type": "number"
32143             }
32144         ],
32145         "description": "Step value across the defined range",
32146         "readOnly": true
32147     },
32148     "value": {
32149         "anyOf": [
32150             {
32151                 "type": "array"
32152             },
32153             {
32154                 "type": "string"
32155             },
32156             {
32157                 "type": "boolean"
32158             },
32159             {
32160                 "type": "integer"
32161             },
32162             {
32163                 "type": "number"
32164             },
32165             {
32166                 "type": "object"
32167             }
32168         ],
32169         "description": "The value sensed or actuated by this Resource"
32170     }
32171 },
32172 "required": [
32173     "modes"
32174 ],
32175 "type": "object"
32176 }
32177 }
32178 }
32179 }
32180

```

32181 **B.63.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property

precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
supportedModes	array: schema see	yes	Read Only	Array of possible modes the device supports.
n	string		Read Only	Friendly name of the resource
modes	array: schema see	yes		Array of the currently active mode(s)
rt	array: schema see		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: schema see		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: schema see		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
modes	array: schema see	yes		Desired mode
rt	array: schema see		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: schema see		Read Only	The interface set supported by this resource

32182

B.63.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ModeResURI		get	post		

32183 **B.64 Motion Sensor**

32184 **B.64.1 Introduction**

32185 This resource describes whether motion has been sensed or not.
32186 The value is a boolean.
32187 A value of 'true' means that motion has been sensed.
32188 A value of 'false' means that motion not been sensed.
32189

32190 **B.64.2 Example URI**

32191 /MotionResURI

32192 **B.64.3 Resource Type**

32193 The resource type (rt) is defined as: ['oic.r.sensor.motion'].

32194 **B.64.4 Swagger2.0 Definition**

```
32195 {
32196   "swagger": "2.0",
32197   "info": {
32198     "title": "Motion Sensor",
32199     "version": "v1.1.0-20160519",
32200     "license": {
32201       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
32202       "x-description": "Redistribution and use in source and binary forms, with or without
32203 modification, are permitted provided that the following conditions are met:\n      1.
32204 Redistributions of source code must retain the above copyright notice, this list of conditions and
32205 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
32206 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
32207 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
32208 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
32209 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
32210 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
32211 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
32212 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
32213 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
32214 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
32215 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
32216 OF SUCH DAMAGE.\n"
32217     }
32218   },
32219   "schemes": ["http"],
32220   "consumes": ["application/json"],
32221   "produces": ["application/json"],
32222   "paths": {
32223     "/MotionResURI" : {
32224       "get": {
32225         "description": "This resource describes whether motion has been sensed or not.\nThe value
32226 is a boolean.\nA value of 'true' means that motion has been sensed.\nA value of 'false' means that
32227 motion not been sensed.\n",
32228         "parameters": [
32229           { "$ref": "#/parameters/interface" }
32230         ],
32231         "responses": {
32232           "200": {
32233             "description": "",
32234             "x-example":
32235               {
32236                 "rt": ["oic.r.sensor.motion"],
32237                 "id": "unique_example_id",
32238                 "value": true
32239               }
32240           },
32241           "schema": { "$ref": "#/definitions/Motion" }
32242         }
32243       }
32244     }
32245   }
```

```

32246 },
32247 "parameters": {
32248   "interface" : {
32249     "in" : "query",
32250     "name" : "if",
32251     "type" : "string",
32252     "enum" : ["oic.if.s", "oic.if.baseline"]
32253   }
32254 },
32255 "definitions": {
32256   "Motion" :
32257     {
32258     "properties": {
32259       "id": {
32260         "description": "Instance ID of this specific resource",
32261         "maxLength": 64,
32262         "readOnly": true,
32263         "type": "string"
32264       },
32265       "if": {
32266         "description": "The interface set supported by this resource",
32267         "items": {
32268           "enum": [
32269             "oic.if.baseline",
32270             "oic.if.ll",
32271             "oic.if.b",
32272             "oic.if.lb",
32273             "oic.if.rw",
32274             "oic.if.r",
32275             "oic.if.a",
32276             "oic.if.s"
32277           ],
32278           "type": "string"
32279         },
32280         "minItems": 1,
32281         "readOnly": true,
32282         "type": "array"
32283       },
32284       "n": {
32285         "description": "Friendly name of the resource",
32286         "maxLength": 64,
32287         "readOnly": true,
32288         "type": "string"
32289       },
32290       "precision": {
32291         "description": "Accuracy granularity of the exposed value",
32292         "readOnly": true,
32293         "type": "number"
32294       },
32295       "range": {
32296         "description": "The valid range for the value Property",
32297         "items": {
32298           "anyOf": [
32299             {
32300               "type": "number"
32301             },
32302             {
32303               "type": "integer"
32304             }
32305           ]
32306         },
32307         "maxItems": 2,
32308         "minItems": 2,
32309         "readOnly": true,
32310         "type": "array"
32311       },
32312       "rt": {
32313         "description": "Resource Type",
32314         "items": {
32315           "maxLength": 64,
32316           "type": "string"

```

```

32317     },
32318     "minItems": 1,
32319     "readOnly": true,
32320     "type": "array"
32321   },
32322   "step": {
32323     "anyOf": [
32324       {
32325         "type": "integer"
32326       },
32327       {
32328         "type": "number"
32329       }
32330     ],
32331     "description": "Step value across the defined range",
32332     "readOnly": true
32333   },
32334   "value": {
32335     "description": "true = sensed, false = not sensed.",
32336     "readOnly": true,
32337     "type": "boolean"
32338   }
32339 },
32340 "required": [
32341   "value"
32342 ],
32343 "type": "object"
32344 }
32345 }
32346 }
32347 }
32348 }

```

32349 **B.64.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

32350 **B.64.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/MotionResURI		get			

32351 **B.65 Movement**

32352 **B.65.1 Introduction**

32353 This resource specifies linear movement.
32354 The movementSettings is an array of strings containing possible movement values (e.g. spin, stop,
32355 left, right).
32356 The movement is the currently selected movement value.
32357 The movementModifier is a modifier to the movement value (e.g. "spin", "90")
32358

32359 **B.65.2 Example URI**

32360 /MovementResURI

32361 **B.65.3 Resource Type**

32362 The resource type (rt) is defined as: ['oic.r.movement.linear'].

32363 **B.65.4 Swagger2.0 Definition**

```
32364 {
32365   "swagger": "2.0",
32366   "info": {
32367     "title": "Movement",
32368     "version": "v1.1.0-20160519",
32369     "license": {
32370       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
32371       "x-description": "Redistribution and use in source and binary forms, with or without
32372 modification, are permitted provided that the following conditions are met:\n      1.
32373 Redistributions of source code must retain the above copyright notice, this list of conditions and
32374 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
32375 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
32376 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
32377 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
32378 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
32379 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
32380 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
32381 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
32382 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
32383 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
32384 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
32385 OF SUCH DAMAGE.\n"
32386   }
32387 },
32388 "schemes": ["http"],
32389 "consumes": ["application/json"],
32390 "produces": ["application/json"],
32391 "paths": {
32392   "/MovementResURI" : {
32393     "get": {
32394       "description": "This resource specifies linear movement.\nThe movementSettings is an array
32395 of strings containing possible movement values (e.g. spin, stop, left, right).\nThe movement is the
32396 currently selected movement value.\nThe movementModifier is a modifier to the movement value (e.g.
32397 \\"spin\\", \\"90\\")\n",
32398       "parameters": [
32399         {"$ref": "#/parameters/interface"}
32400       ],
32401       "responses": {
32402         "200": {
32403           "description": "",
32404           "x-example":
32405             {
32406               "rt": ["oic.r.movement.linear"],
32407               "id": "unique_example_id",
32408               "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
32409               "movement": "rotate",
32410               "movementModifier": "90"
32411             }
32412         }
32413       }
32414     }
32415   }
32416 }
```



```

32413         "schema": { "$ref": "#/definitions/movement" }
32414     }
32415 }
32416 },
32417 "post": {
32418     "description": "Sets the current device movement\n",
32419     "parameters": [
32420         { "$ref": "#/parameters/interface" },
32421         {
32422             "name": "body",
32423             "in": "body",
32424             "required": true,
32425             "schema": { "$ref": "#/definitions/movement" },
32426             "x-example":
32427                 {
32428                     "id": "unique_example_id",
32429                     "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
32430                     "movement": "stop"
32431                 }
32432         }
32433     ],
32434     "responses": {
32435         "200": {
32436             "description": "",
32437             "x-example":
32438                 {
32439                     "id": "unique_example_id",
32440                     "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
32441                     "movement": "stop"
32442                 }
32443             ,
32444             "schema": { "$ref": "#/definitions/movement" }
32445         }
32446     }
32447 }
32448 }
32449 },
32450 "parameters": {
32451     "interface": {
32452         "in": "query",
32453         "name": "if",
32454         "type": "string",
32455         "enum": ["oic.if.s", "oic.if.baseline"]
32456     }
32457 },
32458 "definitions": {
32459     "movement":
32460         {
32461         "properties": {
32462             "id": {
32463                 "description": "Instance ID of this specific resource",
32464                 "maxLength": 64,
32465                 "readOnly": true,
32466                 "type": "string"
32467             },
32468             "if": {
32469                 "description": "The interface set supported by this resource",
32470                 "items": {
32471                     "enum": [
32472                         "oic.if.baseline",
32473                         "oic.if.ll",
32474                         "oic.if.b",
32475                         "oic.if.lb",
32476                         "oic.if.rw",
32477                         "oic.if.r",
32478                         "oic.if.a",
32479                         "oic.if.s"
32480                     ],
32481                     "type": "string"
32482                 }
32483             },
32484             "minItems": 1,

```

```

32484         "readOnly": true,
32485         "type": "array"
32486     },
32487     "movement": {
32488         "description": "Current movement value",
32489         "type": "string"
32490     },
32491     "movementModifier": {
32492         "description": "Modifier to the movement value (e.g. spin-90, left-20), units are
32493 device dependent",
32494         "type": "string"
32495     },
32496     "movementSettings": {
32497         "description": "array of possible movement values",
32498         "items": {
32499             "type": "string"
32500         },
32501         "readOnly": true,
32502         "type": "array"
32503     },
32504     "n": {
32505         "description": "Friendly name of the resource",
32506         "maxLength": 64,
32507         "readOnly": true,
32508         "type": "string"
32509     },
32510     "precision": {
32511         "description": "Accuracy granularity of the exposed value",
32512         "readOnly": true,
32513         "type": "number"
32514     },
32515     "range": {
32516         "description": "The valid range for the value Property",
32517         "items": {
32518             "anyOf": [
32519                 {
32520                     "type": "number"
32521                 },
32522                 {
32523                     "type": "integer"
32524                 }
32525             ]
32526         },
32527         "maxItems": 2,
32528         "minItems": 2,
32529         "readOnly": true,
32530         "type": "array"
32531     },
32532     "rt": {
32533         "description": "Resource Type",
32534         "items": {
32535             "maxLength": 64,
32536             "type": "string"
32537         },
32538         "minItems": 1,
32539         "readOnly": true,
32540         "type": "array"
32541     },
32542     "step": {
32543         "anyOf": [
32544             {
32545                 "type": "integer"
32546             },
32547             {
32548                 "type": "number"
32549             }
32550         ],
32551         "description": "Step value across the defined range",
32552         "readOnly": true
32553     },
32554     "value": {

```

```

32555     "anyOf": [
32556         {
32557             "type": "array"
32558         },
32559         {
32560             "type": "string"
32561         },
32562         {
32563             "type": "boolean"
32564         },
32565         {
32566             "type": "integer"
32567         },
32568         {
32569             "type": "number"
32570         },
32571         {
32572             "type": "object"
32573         }
32574     ],
32575     "description": "The value sensed or actuated by this Resource"
32576 }
32577 },
32578 "required": [
32579     "movementSettings",
32580     "movement"
32581 ],
32582 "type": "object"
32583 }
32584 }
32585 }
32586 }
32587

```

32588 **B.65.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
movementModifier	string			Modifier to the movement value (e.g. spin-90, left-20), units are device dependent
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
movementSettings	array: see schema	yes	Read Only	array of possible movement values
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource

if	array: schema	see		Read Only	The interface set supported by this resource
step	multiple types: see schema			Read Only	Step value across the defined range
movement	string	yes			Current movement value

32589 **B.65.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/MovementResURI		get	post		

32590 **B.66 Night Mode**

32591 **B.66.1 Introduction**

32592 This resource describes a night mode on/off feature.
 32593 A nightMode value of 'true' means that the feature is on.
 32594 A nightMode value of 'false' means that the feature is off.
 32595

32596 **B.66.2 Example URI**

32597 /NightModeResURI

32598 **B.66.3 Resource Type**

32599 The resource type (rt) is defined as: ['oic.r.nightmode'].

32600 **B.66.4 Swagger2.0 Definition**

```

32601 {
32602   "swagger": "2.0",
32603   "info": {
32604     "title": "Night Mode",
32605     "version": "v1.1.0-20160519",
32606     "license": {
32607       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
32608       "x-description": "Redistribution and use in source and binary forms, with or without
32609 modification, are permitted provided that the following conditions are met:\n      1.
32610 Redistributions of source code must retain the above copyright notice, this list of conditions and
32611 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
32612 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
32613 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
32614 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
32615 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
32616 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
32617 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
32618 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
32619 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
32620 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
32621 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
32622 OF SUCH DAMAGE.\n"
32623     }
32624   },
32625   "schemes": ["http"],
32626   "consumes": ["application/json"],
32627   "produces": ["application/json"],
32628   "paths": {
32629     "/NightModeResURI" : {
32630       "get": {
32631         "description": "This resource describes a night mode on/off feature.\nA nightMode value of
32632 'true' means that the feature is on.\nA nightMode value of 'false' means that the feature is
32633 off.\n",
32634         "parameters": [
32635           {"$ref": "#/parameters/interface"}

```

```

32636     ],
32637     "responses": {
32638         "200": {
32639             "description": "",
32640             "x-example":
32641                 {
32642                     "rt": ["oic.r.nightmode"],
32643                     "id": "unique_example_id",
32644                     "nightMode": false
32645                 }
32646             ,
32647             "schema": { "$ref": "#/definitions/NightMode" }
32648         }
32649     },
32650 },
32651 "post": {
32652     "description": "",
32653     "parameters": [
32654         { "$ref": "#/parameters/interface" },
32655         {
32656             "name": "body",
32657             "in": "body",
32658             "required": true,
32659             "schema": { "$ref": "#/definitions/NightMode" },
32660             "x-example":
32661                 {
32662                     "id": "unique_example_id",
32663                     "nightMode": true
32664                 }
32665         }
32666     ],
32667     "responses": {
32668         "200": {
32669             "description": "",
32670             "x-example":
32671                 {
32672                     "id": "unique_example_id",
32673                     "nightMode": true
32674                 }
32675             ,
32676             "schema": { "$ref": "#/definitions/NightMode" }
32677         }
32678     }
32679 },
32680 },
32681 },
32682 "parameters": {
32683     "interface": {
32684         "in": "query",
32685         "name": "if",
32686         "type": "string",
32687         "enum": ["oic.if.a", "oic.if.baseline"]
32688     }
32689 },
32690 "definitions": {
32691     "NightMode": {
32692         {
32693             "properties": {
32694                 "id": {
32695                     "description": "Instance ID of this specific resource",
32696                     "maxLength": 64,
32697                     "readOnly": true,
32698                     "type": "string"
32699                 },
32700                 "if": {
32701                     "description": "The interface set supported by this resource",
32702                     "items": {
32703                         "enum": [
32704                             "oic.if.baseline",
32705                             "oic.if.ll",
32706                             "oic.if.b",

```

```

32707         "oic.if.lb",
32708         "oic.if.rw",
32709         "oic.if.r",
32710         "oic.if.a",
32711         "oic.if.s"
32712     ],
32713     "type": "string"
32714 },
32715 "minItems": 1,
32716 "readOnly": true,
32717 "type": "array"
32718 },
32719 "n": {
32720     "description": "Friendly name of the resource",
32721     "maxLength": 64,
32722     "readOnly": true,
32723     "type": "string"
32724 },
32725 "nightMode": {
32726     "description": "Status of the Night Mode",
32727     "type": "boolean"
32728 },
32729 "precision": {
32730     "description": "Accuracy granularity of the exposed value",
32731     "readOnly": true,
32732     "type": "number"
32733 },
32734 "range": {
32735     "description": "The valid range for the value Property",
32736     "items": {
32737         "anyOf": [
32738             {
32739                 "type": "number"
32740             },
32741             {
32742                 "type": "integer"
32743             }
32744         ]
32745     },
32746     "maxItems": 2,
32747     "minItems": 2,
32748     "readOnly": true,
32749     "type": "array"
32750 },
32751 "rt": {
32752     "description": "Resource Type",
32753     "items": {
32754         "maxLength": 64,
32755         "type": "string"
32756     },
32757     "minItems": 1,
32758     "readOnly": true,
32759     "type": "array"
32760 },
32761 "step": {
32762     "anyOf": [
32763         {
32764             "type": "integer"
32765         },
32766         {
32767             "type": "number"
32768         }
32769     ],
32770     "description": "Step value across the defined range",
32771     "readOnly": true
32772 },
32773 "value": {
32774     "anyOf": [
32775         {
32776             "type": "array"
32777         },

```

```

32778     {
32779         "type": "string"
32780     },
32781     {
32782         "type": "boolean"
32783     },
32784     {
32785         "type": "integer"
32786     },
32787     {
32788         "type": "number"
32789     },
32790     {
32791         "type": "object"
32792     }
32793 ],
32794 "description": "The value sensed or actuated by this Resource"
32795 },
32796 },
32797 "required": [
32798     "nightMode"
32799 ],
32800 "type": "object"
32801 }
32802 }
32803 }
32804 }
32805

```

32806 **B.66.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
nightMode	boolean	yes		Status of the Night Mode
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource

32807 **B.66.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/NightModeResURI		get	post		

32808 **B.67 Open Level**

32809 **B.67.1 Introduction**

32810 This resource describes how open or ajar an entity such as a window, door, blind or shutter is.
32811 The openLevel can be read (acting as a sensor).
32812 The openLevel can also be set (acting as an actuator).
32813 The openLevel is device dependent across the range provided.
32814 When range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed,
32815 100 means fully open.
32816 If a range is provided then the lower bound=closed, upper bound=open.
32817 If step (from oic.r.baseresource) is present then it represents the increment between possible
32818 values; if not provided 1 is assumed.
32819 Retrieves the current openLevel.
32820

32821 **B.67.2 Example URI**

32822 /OpenLevelResURI

32823 **B.67.3 Resource Type**

32824 The resource type (rt) is defined as: ['oic.r.openlevel'].

32825 **B.67.4 Swagger2.0 Definition**

```
32826 {  
32827   "swagger": "2.0",  
32828   "info": {  
32829     "title": "Open Level",  
32830     "version": "v1.1.0-20160519",  
32831     "license": {  
32832       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
32833       "x-description": "Redistribution and use in source and binary forms, with or without  
32834 modification, are permitted provided that the following conditions are met:\n      1.  
32835 Redistributions of source code must retain the above copyright notice, this list of conditions and  
32836 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
32837 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
32838 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
32839 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
32840 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
32841 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
32842 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
32843 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
32844 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
32845 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
32846 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
32847 OF SUCH DAMAGE.\n    }  
32848   },  
32849   "schemes": ["http"],  
32850   "consumes": ["application/json"],  
32851   "produces": ["application/json"],  
32852   "paths": {  
32853     "/OpenLevelResURI" : {  
32854       "get": {  
32855         "description": "This resource describes how open or ajar an entity such as a window, door,  
32856 blind or shutter is.\nThe openLevel can be read (acting as a sensor).\nThe openLevel can also be  
32857 set (acting as an actuator).\nThe openLevel is device dependent across the range provided.\nWhen  
32858 range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed, 100 means  
32859 fully open.\nIf a range is provided then the lower bound=closed, upper bound=open.\nIf step (from  
32860 oic.r.baseresource) is present then it represents the increment between possible values; if not  
32861 provided 1 is assumed.\nRetrieves the current openLevel.\n",  
32862         "parameters": [  
32863           {"$ref": "#/parameters/interface"}  
32864         ],  
32865         "responses": {  
32866           "200": {  
32867             "description": "",  
32868
```



```

32869         "x-example":
32870             {
32871                 "rt":          ["oic.r.openlevel"],
32872                 "id":          "unique_example_id",
32873                 "openLevel":  50,
32874                 "step":        2,
32875                 "range":       [0,100]
32876             }
32877         ,
32878         "schema": { "$ref": "#/definitions/OpenLevel" }
32879     }
32880 },
32881 },
32882 "post": {
32883     "description": "Sets the desired openLevel.\n",
32884     "parameters": [
32885         { "$ref": "#/parameters/interface" },
32886         {
32887             "name": "body",
32888             "in": "body",
32889             "required": true,
32890             "schema": { "$ref": "#/definitions/OpenLevel" },
32891             "x-example":
32892                 {
32893                     "id":          "unique_example_id",
32894                     "openLevel":  0
32895                 }
32896         }
32897     ],
32898     "responses": {
32899         "200": {
32900             "description": "",
32901             "x-example":
32902                 {
32903                     "id":          "unique_example_id",
32904                     "openLevel":  0
32905                 }
32906             ,
32907             "schema": { "$ref": "#/definitions/OpenLevel" }
32908         },
32909         "403": {
32910             "description": "This response is generated by the OIC Server when the client
32911 sends:\n An update with an out of range property value for openLevel.\nThe server responds with
32912 the current resource representation.\n",
32913             "x-example":
32914                 {
32915                     "id":          "unique_example_id",
32916                     "openLevel":  50,
32917                     "step":        2,
32918                     "range":       [0,100]
32919                 }
32920             ,
32921             "schema": { "$ref": "#/definitions/OpenLevel" }
32922         }
32923     }
32924 },
32925 },
32926 },
32927 "parameters": {
32928     "interface": {
32929         "in": "query",
32930         "name": "if",
32931         "type": "string",
32932         "enum": ["oic.if.a", "oic.if.baseline"]
32933     }
32934 },
32935 "definitions": {
32936     "OpenLevel": {
32937         {
32938             "properties": {
32939                 "id": {

```

```

32940         "description": "Instance ID of this specific resource",
32941         "maxLength": 64,
32942         "readOnly": true,
32943         "type": "string"
32944     },
32945     "if": {
32946         "description": "The interface set supported by this resource",
32947         "items": {
32948             "enum": [
32949                 "oic.if.baseline",
32950                 "oic.if.ll",
32951                 "oic.if.b",
32952                 "oic.if.lb",
32953                 "oic.if.rw",
32954                 "oic.if.r",
32955                 "oic.if.a",
32956                 "oic.if.s"
32957             ],
32958             "type": "string"
32959         },
32960         "minItems": 1,
32961         "readOnly": true,
32962         "type": "array"
32963     },
32964     "increment": {
32965         "description": "Deprecated, use 'step' instead.",
32966         "readOnly": true,
32967         "type": "integer"
32968     },
32969     "n": {
32970         "description": "Friendly name of the resource",
32971         "maxLength": 64,
32972         "readOnly": true,
32973         "type": "string"
32974     },
32975     "openLevel": {
32976         "description": "How open or ajar the entity is",
32977         "type": "integer"
32978     },
32979     "precision": {
32980         "description": "Accuracy granularity of the exposed value",
32981         "readOnly": true,
32982         "type": "number"
32983     },
32984     "range": {
32985         "description": "The valid range for the value Property",
32986         "items": {
32987             "anyOf": [
32988                 {
32989                     "type": "number"
32990                 },
32991                 {
32992                     "type": "integer"
32993                 }
32994             ]
32995         },
32996         "maxItems": 2,
32997         "minItems": 2,
32998         "readOnly": true,
32999         "type": "array"
33000     },
33001     "rt": {
33002         "description": "Resource Type",
33003         "items": {
33004             "maxLength": 64,
33005             "type": "string"
33006         },
33007         "minItems": 1,
33008         "readOnly": true,
33009         "type": "array"
33010     },

```

```

33011     "step": {
33012         "anyOf": [
33013             {
33014                 "type": "integer"
33015             },
33016             {
33017                 "type": "number"
33018             }
33019         ],
33020         "description": "Step value across the defined range",
33021         "readOnly": true
33022     },
33023     "value": {
33024         "anyOf": [
33025             {
33026                 "type": "array"
33027             },
33028             {
33029                 "type": "string"
33030             },
33031             {
33032                 "type": "boolean"
33033             },
33034             {
33035                 "type": "integer"
33036             },
33037             {
33038                 "type": "number"
33039             },
33040             {
33041                 "type": "object"
33042             }
33043         ],
33044         "description": "The value sensed or actuated by this Resource"
33045     }
33046 },
33047 "required": [
33048     "openLevel"
33049 ],
33050 "type": "object"
33051 }
33052 }
33053 }
33054 }
33055 }

```

33056 **B.67.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
openLevel	integer	yes		How open or ajar the entity is
increment	integer		Read Only	Deprecated, use 'step' instead.
range	array: see schema		Read Only	The valid range for the value Property

id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource

33057 **B.67.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/OpenLevelResURI		get	post		

33058 **B.68 Operational State**

33059 **B.68.1 Introduction**

33060 This resource describes the operational and job states on a device.
33061 The states can be read or set, setting indicates a desired state.
33062 A device may reject an attempt to set a state that would result
33063 in adverse operational characteristics.
33064 The machineStates is an array of the possible operational states.
33065 The currentMachineState is the current state of operation of the device.
33066 The jobStates is an array of the possible job states.
33067 The currentJobState is the currently active jobState.
33068 The runningTime is the ISO8601 encoded elapsed time in the current operational state.
33069 The remainingTime is the ISO8601 encoded time till completion of the current operational state.
33070 The progressPercentage is the percentage completeness of the current jobState.
33071 Retrieves the current operational and job states.
33072

33073 **B.68.2 Example URI**

33074 /OperationalStateResURI

33075 **B.68.3 Resource Type**

33076 The resource type (rt) is defined as: ['oic.r.operational.state'].

33077 **B.68.4 Swagger2.0 Definition**

```

33078 {
33079   "swagger": "2.0",
33080   "info": {
33081     "title": "Operational State",
33082     "version": "v1.1.0-20160519",
33083     "license": {
33084       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
33085       "x-description": "Redistribution and use in source and binary forms, with or without
33086 modification, are permitted provided that the following conditions are met:\n      1.
33087 Redistributions of source code must retain the above copyright notice, this list of conditions and
33088 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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33098 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
33099 OF SUCH DAMAGE.\n"
33100 }
33101 },
33102 "schemes": ["http"],
33103 "consumes": ["application/json"],
33104 "produces": ["application/json"],
33105 "paths": {
33106   "/OperationalStateResURI" : {
33107     "get": {
33108       "description": "This resource describes the operational and job states on a device.\nThe
33109 states can be read or set, setting indicates a desired state.\nA device may reject an attempt to
33110 set a state that would result\nin adverse operational characteristics.\nThe machineStates is an
33111 array of the possible operational states.\nThe currentMachineState is the current state of
33112 operation of the device.\nThe jobStates is an array of the possible job states.\nThe
33113 currentJobState is the currently active jobState.\nThe runningTime is the ISO8601 encoded elapsed
33114 time in the current operational state.\nThe remainingTime is the ISO8601 encoded time till
33115 completion of the current operational state.\nThe progressPercentage is the percentage completeness
33116 of the current jobState.\nRetrieves the current operational and job states.\n",
33117     "parameters": [
33118       {"$ref": "#/parameters/interface"}
33119     ],
33120     "responses": {
33121       "200": {
33122         "description": "",
33123         "x-example":
33124           {
33125             "rt": ["oic.r.operational.state"],
33126             "id": "unique_example_id",
33127             "machineStates": ["pause", "stopped", "idle", "active"],
33128             "currentMachineState": "active",
33129             "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
33130 "wrinklePrevent"],
33131             "currentJobState": "rinse",
33132             "runningTime": "PT15M20S",
33133             "remainingTime": "PT10M40S",
33134             "progressPercentage": 75
33135           }
33136       },
33137       "schema": { "$ref": "#/definitions/Operation" }
33138     }
33139   }
33140 },
33141 "post": {
33142   "description": "Sets the desired operational or job state.\n",
33143   "parameters": [
33144     {"$ref": "#/parameters/interface"},
33145     {
33146       "name": "body",
33147       "in": "body",
33148       "required": true,
33149       "schema": { "$ref": "#/definitions/OperationUpdate" },
33150       "x-example":
33151         {
33152           "id": "unique_example_id",
33153           "currentMachineState": "pause",
33154           "currentJobState": "wash"
33155         }
33156     }
33157   ],
33158   "responses": {
33159     "200": {
33160       "description": "",
33161       "x-example":
33162         {
33163           "id": "unique_example_id",
33164           "currentMachineState": "pause",
33165           "currentJobState": "wash"
33166         }
33167     },

```

```

33168         "schema": { "$ref": "#/definitions/OperationUpdate" }
33169     },
33170     "403": {
33171         "description": "This response is generated by the OIC Server when the client
33172 sends:\n An update with an value for currentMachineState that is not found in machineStates.\n An
33173 update with an value for currentJobState that is not found in jobStates.\nThe server responds with
33174 the current resource representation.\n",
33175         "x-example":
33176             {
33177                 "id": "unique_example_id",
33178                 "machineStates": ["pause", "stopped", "idle", "active"],
33179                 "currentMachineState": "active",
33180                 "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
33181 "wrinklePrevent"],
33182                 "currentJobState": "rinse",
33183                 "runningTime": "PT15M20S",
33184                 "remainingTime": "PT10M40S",
33185                 "progressPercentage": 75
33186             }
33187     },
33188     "schema": { "$ref": "#/definitions/Operation" }
33189 }
33190 }
33191 }
33192 }
33193 },
33194 "parameters": {
33195     "interface": {
33196         "in": "query",
33197         "name": "if",
33198         "type": "string",
33199         "enum": ["oic.if.a", "oic.if.baseline"]
33200     }
33201 },
33202 "definitions": {
33203     "Operation": {
33204         {
33205             "properties": {
33206                 "currentJobState": {
33207                     "description": "Currently active jobState",
33208                     "type": "string"
33209                 },
33210                 "currentMachineState": {
33211                     "description": "Current state of operation of the device.",
33212                     "type": "string"
33213                 },
33214                 "id": {
33215                     "description": "Instance ID of this specific resource",
33216                     "maxLength": 64,
33217                     "readOnly": true,
33218                     "type": "string"
33219                 },
33220                 "if": {
33221                     "description": "The interface set supported by this resource",
33222                     "items": {
33223                         "enum": [
33224                             "oic.if.baseline",
33225                             "oic.if.ll",
33226                             "oic.if.b",
33227                             "oic.if.lb",
33228                             "oic.if.rw",
33229                             "oic.if.r",
33230                             "oic.if.a",
33231                             "oic.if.s"
33232                         ],
33233                         "type": "string"
33234                     },
33235                     "minItems": 1,
33236                     "readOnly": true,
33237                     "type": "array"
33238                 }

```

```

33239     "jobStates": {
33240         "description": "array of the possible job states.",
33241         "items": {
33242             "type": "string"
33243         },
33244         "readOnly": true,
33245         "type": "array"
33246     },
33247     "machineStates": {
33248         "description": "array of the possible operational states.",
33249         "items": {
33250             "type": "string"
33251         },
33252         "readOnly": true,
33253         "type": "array"
33254     },
33255     "n": {
33256         "description": "Friendly name of the resource",
33257         "maxLength": 64,
33258         "readOnly": true,
33259         "type": "string"
33260     },
33261     "precision": {
33262         "description": "Accuracy granularity of the exposed value",
33263         "readOnly": true,
33264         "type": "number"
33265     },
33266     "progressPercentage": {
33267         "description": "Percentage completeness of the current jobState",
33268         "maximum": 100,
33269         "minimum": 0,
33270         "readOnly": true,
33271         "type": "integer"
33272     },
33273     "range": {
33274         "description": "The valid range for the value Property",
33275         "items": {
33276             "anyOf": [
33277                 {
33278                     "type": "number"
33279                 },
33280                 {
33281                     "type": "integer"
33282                 }
33283             ]
33284         },
33285         "maxItems": 2,
33286         "minItems": 2,
33287         "readOnly": true,
33288         "type": "array"
33289     },
33290     "remainingTime": {
33291         "description": "Time till completion of the current operational state",
33292         "readOnly": true,
33293         "type": "string"
33294     },
33295     "rt": {
33296         "description": "Resource Type",
33297         "items": {
33298             "maxLength": 64,
33299             "type": "string"
33300         },
33301         "minItems": 1,
33302         "readOnly": true,
33303         "type": "array"
33304     },
33305     "runningTime": {
33306         "description": "Elapsed time in the current operational state",
33307         "readOnly": true,
33308         "type": "string"
33309     },

```

```

33310     "step": {
33311         "anyOf": [
33312             {
33313                 "type": "integer"
33314             },
33315             {
33316                 "type": "number"
33317             }
33318         ],
33319         "description": "Step value across the defined range",
33320         "readOnly": true
33321     },
33322     "value": {
33323         "anyOf": [
33324             {
33325                 "type": "array"
33326             },
33327             {
33328                 "type": "string"
33329             },
33330             {
33331                 "type": "boolean"
33332             },
33333             {
33334                 "type": "integer"
33335             },
33336             {
33337                 "type": "number"
33338             },
33339             {
33340                 "type": "object"
33341             }
33342         ],
33343         "description": "The value sensed or actuated by this Resource"
33344     }
33345 },
33346 "required": [
33347     "machineStates",
33348     "currentMachineState"
33349 ],
33350 "type": "object"
33351 }
33352
33353 ,
33354 "OperationUpdate" :
33355 {
33356     "properties": {
33357         "currentJobState": {
33358             "description": "Currently active jobState",
33359             "type": "string"
33360         },
33361         "currentMachineState": {
33362             "description": "Current state of operation of the device.",
33363             "type": "string"
33364         },
33365         "id": {
33366             "description": "Instance ID of this specific resource",
33367             "maxLength": 64,
33368             "readOnly": true,
33369             "type": "string"
33370         },
33371         "if": {
33372             "description": "The interface set supported by this resource",
33373             "items": {
33374                 "enum": [
33375                     "oic.if.baseline",
33376                     "oic.if.ll",
33377                     "oic.if.b",
33378                     "oic.if.lb",
33379                     "oic.if.rw",
33380                     "oic.if.r",

```



```

33381         "oic.if.a",
33382         "oic.if.s"
33383     ],
33384     "type": "string"
33385 },
33386 "minItems": 1,
33387 "readOnly": true,
33388 "type": "array"
33389 },
33390 "n": {
33391     "description": "Friendly name of the resource",
33392     "maxLength": 64,
33393     "readOnly": true,
33394     "type": "string"
33395 },
33396 "precision": {
33397     "description": "Accuracy granularity of the exposed value",
33398     "readOnly": true,
33399     "type": "number"
33400 },
33401 "range": {
33402     "description": "The valid range for the value Property",
33403     "items": {
33404         "anyOf": [
33405             {
33406                 "type": "number"
33407             },
33408             {
33409                 "type": "integer"
33410             }
33411         ]
33412     },
33413     "maxItems": 2,
33414     "minItems": 2,
33415     "readOnly": true,
33416     "type": "array"
33417 },
33418 "rt": {
33419     "description": "Resource Type",
33420     "items": {
33421         "maxLength": 64,
33422         "type": "string"
33423     },
33424     "minItems": 1,
33425     "readOnly": true,
33426     "type": "array"
33427 },
33428 "step": {
33429     "anyOf": [
33430         {
33431             "type": "integer"
33432         },
33433         {
33434             "type": "number"
33435         }
33436     ],
33437     "description": "Step value across the defined range",
33438     "readOnly": true
33439 },
33440 "value": {
33441     "anyOf": [
33442         {
33443             "type": "array"
33444         },
33445         {
33446             "type": "string"
33447         },
33448         {
33449             "type": "boolean"
33450         },
33451         {

```

```

33452         "type": "integer"
33453     },
33454     {
33455         "type": "number"
33456     },
33457     {
33458         "type": "object"
33459     }
33460 ],
33461 "description": "The value sensed or actuated by this Resource"
33462 },
33463 },
33464 "type": "object"
33465 }
33466 }
33467 }
33468 }
33469 }

```

33470 **B.68.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
runningTime	string		Read Only	Elapsed time in the current operational state
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
progressPercentage	integer		Read Only	Percentage completeness of the current jobState
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
currentJobState	string			Currently active jobState
currentMachineState	string	yes		Current state of operation of the device.
jobStates	array: see schema		Read Only	array of the possible job states.
remainingTime	string		Read Only	Time till completion of

				the current operational state
range	array: see schema		Read Only	The valid range for the value Property
machineStates	array: see schema	yes	Read Only	array of the possible operational states.
id	string		Read Only	Instance ID of this specific resource
currentJobState	string			Currently active jobState
if	array: see schema		Read Only	The interface set supported by this resource
currentMachineState	string			Current state of operation of the device.
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource

33471 **B.68.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/OperationalStateResURI		get	post		

33472 **B.69 Presence Sensor**

33473 **B.69.1 Introduction**

33474 This resource describes whether presence has been sensed or not.
 33475 The value is a boolean.
 33476 A value of 'true' means that presence has been sensed.
 33477 A value of 'false' means that presence not been sensed.
 33478

33479 **B.69.2 Example URI**

33480 /PresenceResURI

33481 **B.69.3 Resource Type**

33482 The resource type (rt) is defined as: ['oic.r.sensor.presence'].

33483 **B.69.4 Swagger2.0 Definition**

```
33484 {
33485   "swagger": "2.0",
33486   "info": {
33487     "title": "Presence Sensor",
33488     "version": "v1.1.0-20160519",
33489     "license": {
33490       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
33491       "x-description": "Redistribution and use in source and binary forms, with or without
33492 modification, are permitted provided that the following conditions are met:\n      1.
33493 Redistributions of source code must retain the above copyright notice, this list of conditions and
33494 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
33495 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
33496 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
33497 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
33498 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
33499 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
33500 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
33501 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
33502 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
33503 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
33504 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
33505 OF SUCH DAMAGE.\n"
33506     }
33507   },
33508   "schemes": ["http"],
33509   "consumes": ["application/json"],
33510   "produces": ["application/json"],
33511   "paths": {
33512     "/PresenceResURI" : {
33513       "get": {
33514         "description": "This resource describes whether presence has been sensed or not.\nThe value
33515 is a boolean.\nA value of 'true' means that presence has been sensed.\nA value of 'false' means
33516 that presence not been sensed.\n",
33517         "parameters": [
33518           { "$ref": "#/parameters/interface" }
33519         ],
33520         "responses": {
33521           "200": {
33522             "description": "",
33523             "x-example":
33524               {
33525                 "rt": ["oic.r.sensor.presence"],
33526                 "id": "unique_example_id",
33527                 "value": true
33528               }
33529             ,
33530             "schema": { "$ref": "#/definitions/Presence" }
33531           }
33532         }
33533       }
33534     }
33535   },
33536   "parameters": {
33537     "interface" : {
33538       "in" : "query",
33539       "name" : "if",
33540       "type" : "string",
33541       "enum" : ["oic.if.s", "oic.if.baseline"]
33542     }
33543   },
33544   "definitions": {
33545     "Presence" :
33546       {
33547         "properties": {
33548           "id": {
33549             "description": "Instance ID of this specific resource",
```

```

33550         "maxLength": 64,
33551         "readOnly": true,
33552         "type": "string"
33553     },
33554     "if": {
33555         "description": "The interface set supported by this resource",
33556         "items": {
33557             "enum": [
33558                 "oic.if.baseline",
33559                 "oic.if.ll",
33560                 "oic.if.b",
33561                 "oic.if.lb",
33562                 "oic.if.rw",
33563                 "oic.if.r",
33564                 "oic.if.a",
33565                 "oic.if.s"
33566             ],
33567             "type": "string"
33568         },
33569         "minItems": 1,
33570         "readOnly": true,
33571         "type": "array"
33572     },
33573     "n": {
33574         "description": "Friendly name of the resource",
33575         "maxLength": 64,
33576         "readOnly": true,
33577         "type": "string"
33578     },
33579     "precision": {
33580         "description": "Accuracy granularity of the exposed value",
33581         "readOnly": true,
33582         "type": "number"
33583     },
33584     "range": {
33585         "description": "The valid range for the value Property",
33586         "items": {
33587             "anyOf": [
33588                 {
33589                     "type": "number"
33590                 },
33591                 {
33592                     "type": "integer"
33593                 }
33594             ]
33595         },
33596         "maxItems": 2,
33597         "minItems": 2,
33598         "readOnly": true,
33599         "type": "array"
33600     },
33601     "rt": {
33602         "description": "Resource Type",
33603         "items": {
33604             "maxLength": 64,
33605             "type": "string"
33606         },
33607         "minItems": 1,
33608         "readOnly": true,
33609         "type": "array"
33610     },
33611     "step": {
33612         "anyOf": [
33613             {
33614                 "type": "integer"
33615             },
33616             {
33617                 "type": "number"
33618             }
33619         ],
33620         "description": "Step value across the defined range",

```

```

33621     "readOnly": true
33622   },
33623   "value": {
33624     "description": "true = sensed, false = not sensed.",
33625     "readOnly": true,
33626     "type": "boolean"
33627   }
33628 },
33629 "required": [
33630   "value"
33631 ],
33632 "type": "object"
33633 }
33634 }
33635 }
33636 }
33637

```

33638 B.69.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type

33639 B.69.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/PresenceResURI		get			

33640 B.70 Pan Tilt Zoom Movement

33641 B.70.1 Introduction

33642 This resource specifies the pan tilt and zoom capabilities of a device.
33643 The resource rt is dynamic and reflects whether the values apply to
33644 physical movement of the device or digital/virtual enhancements to the image.
33645 For physical movement the rt is 'oic.r.movement.ptz'.
33646 For digital/virtual image enhancements the rt is 'oic.r.image.ptz'.
33647 The Pan and Tilt are specified in degrees.
33648 The Zoom Factor is a value in the range 1-100 for linear (optical) zoom.
33649 The Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom.
33650 If there is no zoom value to set the Zoom Factor shall be '1x'.

33651 The value 0 degrees means neutral, this is the vendor defined setting.
33652 Note that this resource also can be used to create an offset for physical movement.
33653 When that is the case, the rt value is: oic.r.movement.offset.ptz
33654 Note that this resource also can be used to create an offset for image movement.
33655 When that is the case, the rt value is: oic.r.image.offset.ptz
33656 When the pan_range value is omitted, then the range is [-180.0,180.0].
33657 If pan is not supported then the range shall be [0.0,0.0]
33658 When the tilt_range value is omitted, then the range is [-180.0,180.0].
33659 If tilt is not supported then the range shall be [0.0,0.0]
33660 Retrieves the current pan, tilt and zoom setting.
33661

33662 **B.70.2 Example URI**

33663 /PanTiltZoomResURI

33664 **B.70.3 Resource Type**

33665 The resource type (rt) is defined as: ['oic.r.ptz'].

33666 **B.70.4 Swagger2.0 Definition**

```
33667 {  
33668   "swagger": "2.0",  
33669   "info": {  
33670     "title": "Pan Tilt Zoom Movement",  
33671     "version": "v1.1.0-20160519",  
33672     "license": {  
33673       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
33674       "x-description": "Redistribution and use in source and binary forms, with or without  
33675 modification, are permitted provided that the following conditions are met:\n      1.  
33676 Redistributions of source code must retain the above copyright notice, this list of conditions and  
33677 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
33678 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
33679 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
33680 Connectivity Foundation, INC. \nAS IS\n AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
33681 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
33682 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
33683 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
33684 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
33685 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
33686 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
33687 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
33688 OF SUCH DAMAGE.\n\n    }  
33689   },  
33690 },  
33691 "schemes": ["http"],  
33692 "consumes": ["application/json"],  
33693 "produces": ["application/json"],  
33694 "paths": {  
33695   "/PanTiltZoomResURI" : {  
33696     "get": {  
33697       "description": "This resource specifies the pan tilt and zoom capabilities of a  
33698 device.\nThe resource rt is dynamic and reflects whether the values apply to\n physical movement  
33699 of the device or digital/virtual enhancements to the image.\nFor physical movement the rt is  
33700 'oic.r.movement.ptz'.\nFor digital/virtual image enhancements the rt is 'oic.r.image.ptz'.\nThe Pan  
33701 and Tilt are specified in degrees.\nThe Zoom Factor is a value in the range 1-100 for linear  
33702 (optical) zoom.\nThe Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital  
33703 zoom.\nIf there is no zoom value to set the Zoom Factor shall be '1x'.\nThe value 0 degrees means  
33704 neutral, this is the vendor defined setting.\nNote that this resource also can be used to create an  
33705 offset for physical movement.\nWhen that is the case, the rt value is:  
33706 oic.r.movement.offset.ptz\nNote that this resource also can be used to create an offset for image  
33707 movement.\nWhen that is the case, the rt value is: oic.r.image.offset.ptz\nWhen the pan_range value  
33708 is omitted, then the range is [-180.0,180.0].\nIf pan is not supported then the range shall be  
33709 [0.0,0.0]\nWhen the tilt_range value is omitted, then the range is [-180.0,180.0].\nIf tilt is not  
33710 supported then the range shall be [0.0,0.0]\nRetrieves the current pan, tilt and zoom setting.\n",  
33711     "parameters": [  
33712       {"$ref": "#/parameters/interface"}  
33713     ],
```

```

33714     "responses": {
33715         "200": {
33716             "description" : "",
33717             "x-example":
33718                 {
33719                     "rt":          ["oic.r.ptz"],
33720                     "id":          "unique_example_id",
33721                     "pan":         0.0,
33722                     "tilt":        0.0,
33723                     "zoomFactor":  "2x"
33724                 }
33725             ,
33726             "schema": { "$ref": "#/definitions/PanTiltZoom" }
33727         }
33728     },
33729     "post": {
33730         "description": "Sets the current pan, tilt and zoom value\n",
33731         "parameters": [
33732             { "$ref": "#/parameters/interface" },
33733             {
33734                 "name": "body",
33735                 "in": "body",
33736                 "required": true,
33737                 "schema": { "$ref": "#/definitions/PanTiltZoom" },
33738                 "x-example":
33739                     {
33740                         "id":          "unique_example_id",
33741                         "pan":         10.0,
33742                         "tilt":        -10.0,
33743                         "zoomFactor":  "4x"
33744                     }
33745             }
33746         ],
33747         "responses": {
33748             "200": {
33749                 "description" : "",
33750                 "x-example":
33751                     {
33752                         "id":          "unique_example_id",
33753                         "pan":         10.0,
33754                         "tilt":        -10.0,
33755                         "zoomFactor":  "4x"
33756                     }
33757                 ,
33758                 "schema": { "$ref": "#/definitions/PanTiltZoom" }
33759             }
33760         }
33761     }
33762 },
33763 },
33764 },
33765 "parameters": {
33766     "interface" : {
33767         "in" : "query",
33768         "name" : "if",
33769         "type" : "string",
33770         "enum" : ["oic.if.a", "oic.if.baseline"]
33771     }
33772 },
33773 "definitions": {
33774     "PanTiltZoom" :
33775         {
33776             "properties": {
33777                 "id": {
33778                     "description": "Instance ID of this specific resource",
33779                     "maxLength": 64,
33780                     "readOnly": true,
33781                     "type": "string"
33782                 },
33783                 "if": {
33784                     "description": "The interface set supported by this resource",

```



```

33785     "items": {
33786         "enum": [
33787             "oic.if.baseline",
33788             "oic.if.ll",
33789             "oic.if.b",
33790             "oic.if.lb",
33791             "oic.if.rw",
33792             "oic.if.r",
33793             "oic.if.a",
33794             "oic.if.s"
33795         ],
33796         "type": "string"
33797     },
33798     "minItems": 1,
33799     "readOnly": true,
33800     "type": "array"
33801 },
33802 "n": {
33803     "description": "Friendly name of the resource",
33804     "maxLength": 64,
33805     "readOnly": true,
33806     "type": "string"
33807 },
33808 "pan": {
33809     "description": "horizontal pan in degrees",
33810     "type": "number"
33811 },
33812 "pan_range": {
33813     "description": "Min and Max values for the pan setting",
33814     "items": {
33815         "type": "number"
33816     },
33817     "maxItems": 2,
33818     "minItems": 2,
33819     "readOnly": true,
33820     "type": "array"
33821 },
33822 "precision": {
33823     "description": "Accuracy granularity of the exposed value",
33824     "readOnly": true,
33825     "type": "number"
33826 },
33827 "range": {
33828     "description": "The valid range for the value Property",
33829     "items": {
33830         "anyOf": [
33831             {
33832                 "type": "number"
33833             },
33834             {
33835                 "type": "integer"
33836             }
33837         ]
33838     },
33839     "maxItems": 2,
33840     "minItems": 2,
33841     "readOnly": true,
33842     "type": "array"
33843 },
33844 "rt": {
33845     "description": "Resource Type",
33846     "items": {
33847         "maxLength": 64,
33848         "type": "string"
33849     },
33850     "minItems": 1,
33851     "readOnly": true,
33852     "type": "array"
33853 },
33854 "step": {
33855     "anyOf": [

```

```

33856         {
33857             "type": "integer"
33858         },
33859         {
33860             "type": "number"
33861         }
33862     ],
33863     "description": "Step value across the defined range",
33864     "readOnly": true
33865 },
33866 "tilt": {
33867     "description": "vertical tilt in degrees",
33868     "type": "number"
33869 },
33870 "tilt_range": {
33871     "description": "Min and Max values for the tilt setting",
33872     "items": {
33873         "type": "number"
33874     },
33875     "maxItems": 2,
33876     "minItems": 2,
33877     "readOnly": true,
33878     "type": "array"
33879 },
33880 "value": {
33881     "anyOf": [
33882         {
33883             "type": "array"
33884         },
33885         {
33886             "type": "string"
33887         },
33888         {
33889             "type": "boolean"
33890         },
33891         {
33892             "type": "integer"
33893         },
33894         {
33895             "type": "number"
33896         },
33897         {
33898             "type": "object"
33899         }
33900     ],
33901     "description": "The value sensed or actuated by this Resource"
33902 },
33903 "zoomFactor": {
33904     "description": "The Zoomfactor value",
33905     "type": "string"
33906 },
33907 "zoomFactorRange": {
33908     "description": "allowed Zoom Factor values. Linear equates to a 1-100 min/max.",
33909     "enum": [
33910         "linear",
33911         "1x",
33912         "2x",
33913         "4x",
33914         "8x",
33915         "16x",
33916         "32x"
33917     ],
33918     "readOnly": true,
33919     "type": "string"
33920 }
33921 },
33922 "required": [
33923     "pan",
33924     "tilt",
33925     "zoomFactor"
33926 ],

```

```

33927     "type": "object"
33928   }
33929 }
33930 }
33931 }
33932 }

```

33933 **B.70.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
zoomFactorRange	string		Read Only	allowed Zoom Factor values. Linear equates to a 1-100 min/max.
pan_range	array: see schema		Read Only	Min and Max values for the pan setting
tilt	number	yes		vertical tilt in degrees
tilt_range	array: see schema		Read Only	Min and Max values for the tilt setting
zoomFactor	string	yes		The Zoomfactor value
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
pan	number	yes		horizontal pan in degrees
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property

33934 **B.70.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/PanTiltZoomResURI		get	post		

33935 **B.71 Ramp Time**

33936 **B.71.1 Introduction**

33937 This resource that describes the Ramp Time of a dimming function.
33938 This specifies the actual speed of changing between 2 dimming values.
33939 Time is specified in milliseconds [ms].
33940 When range (from oic.r.baseresource) is omitted the maximum value is 100 ms.
33941 The RampTime of 0ms indicates the minimal delay possible by the implementation.
33942 Retrieves the current RampTime.
33943

33944 **B.71.2 Example URI**

33945 /RampTimeResURI

33946 **B.71.3 Resource Type**

33947 The resource type (rt) is defined as: ['oic.r.light.ramptime'].

33948 **B.71.4 Swagger2.0 Definition**

```
33949 {  
33950   "swagger": "2.0",  
33951   "info": {  
33952     "title": "Ramp Time",  
33953     "version": "v1.1.0-20160519",  
33954     "license": {  
33955       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
33956       "x-description": "Redistribution and use in source and binary forms, with or without  
33957 modification, are permitted provided that the following conditions are met:\n      1.  
33958 Redistributions of source code must retain the above copyright notice, this list of conditions and  
33959 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
33960 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
33961 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
33962 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
33963 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
33964 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
33965 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
33966 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
33967 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
33968 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
33969 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
33970 OF SUCH DAMAGE.\n\n"}  
33971   },  
33972   },  
33973   "schemes": ["http"],  
33974   "consumes": ["application/json"],  
33975   "produces": ["application/json"],  
33976   "paths": {  
33977     "/RampTimeResURI" : {  
33978       "get": {  
33979         "description": "This resource that describes the Ramp Time of a dimming function.\nThis  
33980 specifies the actual speed of changing between 2 dimming values.\nTime is specified in milliseconds  
33981 [ms].\nWhen range (from oic.r.baseresource) is omitted the maximum value is 100 ms.\nThe RampTime  
33982 of 0ms indicates the minimal delay possible by the implementation.\nRetrieves the current  
33983 RampTime.\n",  
33984         "parameters": [  
33985           {"$ref": "#/parameters/interface"}  
33986         ],  
33987         "responses": {  
33988           "200": {  
33989             "description": "",  
33990             "x-example":  
33991               {  
33992                 "rt": ["oic.r.light.ramptime"],  
33993                 "id": "unique_example_id",  
33994                 "rampTime": 0,  
33995                 "range": [0,100]  
33996               }  
33997             }  
33998           }  
33999         }  
34000       }  
34001     }  
34002   }  
34003 }
```

```

33997         '
33998         "schema": { "$ref": "#/definitions/RampTime" }
33999     }
34000 }
34001 },
34002 "post": {
34003     "description": "Sets the current RampTime.\n",
34004     "parameters": [
34005         { "$ref": "#/parameters/interface" },
34006         {
34007             "name": "body",
34008             "in": "body",
34009             "required": true,
34010             "schema": { "$ref": "#/definitions/RampTime" },
34011             "x-example":
34012                 {
34013                     "id": "unique_example_id",
34014                     "rampTime": 50
34015                 }
34016         }
34017     ],
34018     "responses": {
34019         "200": {
34020             "description": "",
34021             "x-example":
34022                 {
34023                     "id": "unique_example_id",
34024                     "rampTime": 50
34025                 }
34026         },
34027         "schema": { "$ref": "#/definitions/RampTime" }
34028     },
34029     "403": {
34030         "description": "This response is generated by the OIC Server when the client
34031 sends:\n An update with an out of range property value for rampTime.\nThe server responds with the
34032 current resource representation.\n",
34033         "x-example":
34034             {
34035                 "id": "unique_example_id",
34036                 "rampTime": 40
34037             }
34038         },
34039         "schema": { "$ref": "#/definitions/RampTime" }
34040     }
34041 }
34042 }
34043 },
34044 "parameters": {
34045     "interface": {
34046         "in": "query",
34047         "name": "if",
34048         "type": "string",
34049         "enum": ["oic.if.a", "oic.if.baseline"]
34050     }
34051 },
34052 "definitions": {
34053     "RampTime": {
34054         "properties": {
34055             "id": {
34056                 "description": "Instance ID of this specific resource",
34057                 "maxLength": 64,
34058                 "readOnly": true,
34059                 "type": "string"
34060             },
34061             "if": {
34062                 "description": "The interface set supported by this resource",
34063                 "items": {
34064                     "enum": [
34065                         "oic.if.baseline",

```

```

34068         "oic.if.ll",
34069         "oic.if.b",
34070         "oic.if.lb",
34071         "oic.if.rw",
34072         "oic.if.r",
34073         "oic.if.a",
34074         "oic.if.s"
34075     ],
34076     "type": "string"
34077 },
34078     "minItems": 1,
34079     "readOnly": true,
34080     "type": "array"
34081 },
34082     "n": {
34083         "description": "Friendly name of the resource",
34084         "maxLength": 64,
34085         "readOnly": true,
34086         "type": "string"
34087     },
34088     "precision": {
34089         "description": "Accuracy granularity of the exposed value",
34090         "readOnly": true,
34091         "type": "number"
34092     },
34093     "rampTime": {
34094         "description": "Actual speed of changing between 2 dimming values",
34095         "type": "integer"
34096     },
34097     "range": {
34098         "description": "The valid range for the value Property",
34099         "items": {
34100             "anyOf": [
34101                 {
34102                     "type": "number"
34103                 },
34104                 {
34105                     "type": "integer"
34106                 }
34107             ]
34108         },
34109         "maxItems": 2,
34110         "minItems": 2,
34111         "readOnly": true,
34112         "type": "array"
34113     },
34114     "rt": {
34115         "description": "Resource Type",
34116         "items": {
34117             "maxLength": 64,
34118             "type": "string"
34119         },
34120         "minItems": 1,
34121         "readOnly": true,
34122         "type": "array"
34123     },
34124     "step": {
34125         "anyOf": [
34126             {
34127                 "type": "integer"
34128             },
34129             {
34130                 "type": "number"
34131             }
34132         ],
34133         "description": "Step value across the defined range",
34134         "readOnly": true
34135     },
34136     "value": {
34137         "anyOf": [
34138             {

```

```

34139         "type": "array"
34140     },
34141     {
34142         "type": "string"
34143     },
34144     {
34145         "type": "boolean"
34146     },
34147     {
34148         "type": "integer"
34149     },
34150     {
34151         "type": "number"
34152     },
34153     {
34154         "type": "object"
34155     }
34156 ],
34157 "description": "The value sensed or actuated by this Resource"
34158 }
34159 },
34160 "required": [
34161     "rampTime"
34162 ],
34163 "type": "object"
34164 }
34165 }
34166 }
34167 }
34168

```

34169 **B.71.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
rampTime	integer	yes		Actual speed of changing between 2 dimming values
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

34170 **B.71.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/RampTimeResURI		get	post		

34171 **B.72 Refrigeration**

34172 **B.72.1 Introduction**

34173 This resource describes a refrigeration function.
 34174 The filter state is a read-only value providing the percentage life time remaining for the water filter.
 34175 RapidFreeze is a boolean that controls the rapid freeze capability if present.
 34176 RapidCool is a boolean that controls the rapid cool capability if present.
 34177 Defrost is a boolean that controls the defrost cycle if present.
 34178 At least one of the listed Properties shall be present in a Resource Instance.
 34179 Retrieves the current Refrigeration function status; all Properties supported by the Device are
 34180 returned.
 34181

34182 **B.72.2 Example URI**

34183 /RefrigerationResURI

34184 **B.72.3 Resource Type**

34185 The resource type (rt) is defined as: ['oic.r.refrigeration'].

34186 **B.72.4 Swagger2.0 Definition**

```

34187 {
34188   "swagger": "2.0",
34189   "info": {
34190     "title": "Refrigeration",
34191     "version": "v1.1.0-20160519",
34192     "license": {
34193       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
34194       "x-description": "Redistribution and use in source and binary forms, with or without
34195 modification, are permitted provided that the following conditions are met:\n      1.
34196 Redistributions of source code must retain the above copyright notice, this list of conditions and
34197 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
34198 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
34199 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
34200 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
34201 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
34202 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
34203 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
34204 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
34205 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
34206 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
34207 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
34208 OF SUCH DAMAGE.\n"
34209   }
34210 },
34211 "schemes": ["http"],
34212 "consumes": ["application/json"],
34213 "produces": ["application/json"],
34214 "paths": {
34215   "/RefrigerationResURI" : {
34216     "get": {
34217       "description": "This resource describes a refrigeration function.\n\nThe filter state is a
34218 read-only value providing the percentage life time remaining for the water filter.\n\nRapidFreeze is a
34219 boolean that controls the rapid freeze capability if present.\n\nRapidCool is a boolean that
34220 controls the rapid cool capability if present.\n\nDefrost is a boolean that controls the defrost
34221 cycle if present.\n\nAt least one of the listed Properties shall be present in a Resource
34222 Instance.\n\nRetrieves the current Refrigeration function status; all Properties supported by the
34223 Device are returned.\n",
34224     "parameters": [
34225       {"$ref": "#/parameters/interface"}
34226     ],

```



```

34227     "responses": {
34228         "200": {
34229             "description" : "",
34230             "x-example":
34231                 {
34232                     "rt":          ["oic.r.refrigeration"],
34233                     "id":          "unique_example_id",
34234                     "filter":      75,
34235                     "rapidFreeze": false,
34236                     "rapidCool":   false,
34237                     "defrost":     true
34238                 }
34239             ,
34240             "schema": { "$ref": "#/definitions/Refrigeration" }
34241         }
34242     },
34243 },
34244 "post": {
34245     "description": "Activates the desired Refrigeration functions.\nSupported values are
34246 rapidFreeze, rapidCool and defrost.\nAt least one of the supported values shall be provided.\n",
34247     "parameters": [
34248         { "$ref": "#/parameters/interface" },
34249         {
34250             "name": "body",
34251             "in": "body",
34252             "required": true,
34253             "schema": { "$ref": "#/definitions/RefrigerationUpdate" },
34254             "x-example":
34255                 {
34256                     "id":          "unique_example_id",
34257                     "rapidFreeze": true
34258                 }
34259         }
34260     ],
34261     "responses": {
34262         "200": {
34263             "description": "Indicates that the Refrigeration function was changed.\nThe new
34264 status can be provided in the response.\n",
34265             "x-example":
34266                 {
34267                     "id":          "unique_example_id",
34268                     "rapidFreeze": true
34269                 }
34270             ,
34271             "schema": { "$ref": "#/definitions/RefrigerationUpdate" }
34272         }
34273     }
34274 },
34275 },
34276 },
34277 "parameters": {
34278     "interface" : {
34279         "in" : "query",
34280         "name" : "if",
34281         "type" : "string",
34282         "enum" : ["oic.if.a", "oic.if.baseline"]
34283     }
34284 },
34285 "definitions": {
34286     "Refrigeration" :
34287         {
34288         "anyOf": [
34289             {
34290                 "required": [
34291                     "filter"
34292                 ]
34293             },
34294             {
34295                 "required": [
34296                     "rapidFreeze"
34297                 ]

```

```

34298     },
34299     {
34300         "required": [
34301             "rapidCool"
34302         ]
34303     },
34304     {
34305         "required": [
34306             "defrost"
34307         ]
34308     }
34309 ],
34310 "properties": {
34311     "defrost": {
34312         "description": "Indicates whether a defrost cycle is currently active",
34313         "type": "boolean"
34314     },
34315     "filter": {
34316         "description": "Percentage life time remaining for the water filter",
34317         "maximum": 100,
34318         "minimum": 0,
34319         "readOnly": true,
34320         "type": "integer"
34321     },
34322     "id": {
34323         "description": "Instance ID of this specific resource",
34324         "maxLength": 64,
34325         "readOnly": true,
34326         "type": "string"
34327     },
34328     "if": {
34329         "description": "The interface set supported by this resource",
34330         "items": {
34331             "enum": [
34332                 "oic.if.baseline",
34333                 "oic.if.ll",
34334                 "oic.if.b",
34335                 "oic.if.lb",
34336                 "oic.if.rw",
34337                 "oic.if.r",
34338                 "oic.if.a",
34339                 "oic.if.s"
34340             ],
34341             "type": "string"
34342         },
34343         "minItems": 1,
34344         "readOnly": true,
34345         "type": "array"
34346     },
34347     "n": {
34348         "description": "Friendly name of the resource",
34349         "maxLength": 64,
34350         "readOnly": true,
34351         "type": "string"
34352     },
34353     "precision": {
34354         "description": "Accuracy granularity of the exposed value",
34355         "readOnly": true,
34356         "type": "number"
34357     },
34358     "range": {
34359         "description": "The valid range for the value Property",
34360         "items": {
34361             "anyOf": [
34362                 {
34363                     "type": "number"
34364                 },
34365                 {
34366                     "type": "integer"
34367                 }
34368             ]

```

```

34369         },
34370         "maxItems": 2,
34371         "minItems": 2,
34372         "readOnly": true,
34373         "type": "array"
34374     },
34375     "rapidCool": {
34376         "description": "Indicates whether the unit has a rapid cool capability active",
34377         "type": "boolean"
34378     },
34379     "rapidFreeze": {
34380         "description": "Indicates whether the unit has a rapid freeze capability active.",
34381         "type": "boolean"
34382     },
34383     "rt": {
34384         "description": "Resource Type",
34385         "items": {
34386             "maxLength": 64,
34387             "type": "string"
34388         },
34389         "minItems": 1,
34390         "readOnly": true,
34391         "type": "array"
34392     },
34393     "step": {
34394         "anyOf": [
34395             {
34396                 "type": "integer"
34397             },
34398             {
34399                 "type": "number"
34400             }
34401         ],
34402         "description": "Step value across the defined range",
34403         "readOnly": true
34404     },
34405     "value": {
34406         "anyOf": [
34407             {
34408                 "type": "array"
34409             },
34410             {
34411                 "type": "string"
34412             },
34413             {
34414                 "type": "boolean"
34415             },
34416             {
34417                 "type": "integer"
34418             },
34419             {
34420                 "type": "number"
34421             },
34422             {
34423                 "type": "object"
34424             }
34425         ],
34426         "description": "The value sensed or actuated by this Resource"
34427     }
34428 },
34429 "type": "object"
34430 }
34431
34432 ,
34433 "RefrigerationUpdate" :
34434 {
34435     "anyOf": [
34436         {
34437             "required": [
34438                 "rapidFreeze"
34439             ]

```

```

34440     },
34441     {
34442         "required": [
34443             "rapidCool"
34444         ]
34445     },
34446     {
34447         "required": [
34448             "defrost"
34449         ]
34450     }
34451 ],
34452 "properties": {
34453     "defrost": {
34454         "description": "Indicates whether a defrost cycle is currently active",
34455         "type": "boolean"
34456     },
34457     "id": {
34458         "description": "Instance ID of this specific resource",
34459         "maxLength": 64,
34460         "readOnly": true,
34461         "type": "string"
34462     },
34463     "if": {
34464         "description": "The interface set supported by this resource",
34465         "items": {
34466             "enum": [
34467                 "oic.if.baseline",
34468                 "oic.if.ll",
34469                 "oic.if.b",
34470                 "oic.if.lb",
34471                 "oic.if.rw",
34472                 "oic.if.r",
34473                 "oic.if.a",
34474                 "oic.if.s"
34475             ],
34476             "type": "string"
34477         },
34478         "minItems": 1,
34479         "readOnly": true,
34480         "type": "array"
34481     },
34482     "n": {
34483         "description": "Friendly name of the resource",
34484         "maxLength": 64,
34485         "readOnly": true,
34486         "type": "string"
34487     },
34488     "precision": {
34489         "description": "Accuracy granularity of the exposed value",
34490         "readOnly": true,
34491         "type": "number"
34492     },
34493     "range": {
34494         "description": "The valid range for the value Property",
34495         "items": {
34496             "anyOf": [
34497                 {
34498                     "type": "number"
34499                 },
34500                 {
34501                     "type": "integer"
34502                 }
34503             ]
34504         },
34505         "maxItems": 2,
34506         "minItems": 2,
34507         "readOnly": true,
34508         "type": "array"
34509     },
34510     "rapidCool": {

```

```

34511         "description": "Indicates whether the unit has a rapid cool capability active",
34512         "type": "boolean"
34513     },
34514     "rapidFreeze": {
34515         "description": "Indicates whether the unit has a rapid freeze capability active.",
34516         "type": "boolean"
34517     },
34518     "rt": {
34519         "description": "Resource Type",
34520         "items": {
34521             "maxLength": 64,
34522             "type": "string"
34523         },
34524         "minItems": 1,
34525         "readOnly": true,
34526         "type": "array"
34527     },
34528     "step": {
34529         "anyOf": [
34530             {
34531                 "type": "integer"
34532             },
34533             {
34534                 "type": "number"
34535             }
34536         ],
34537         "description": "Step value across the defined range",
34538         "readOnly": true
34539     },
34540     "value": {
34541         "anyOf": [
34542             {
34543                 "type": "array"
34544             },
34545             {
34546                 "type": "string"
34547             },
34548             {
34549                 "type": "boolean"
34550             },
34551             {
34552                 "type": "integer"
34553             },
34554             {
34555                 "type": "number"
34556             },
34557             {
34558                 "type": "object"
34559             }
34560         ],
34561         "description": "The value sensed or actuated by this Resource"
34562     }
34563 },
34564 "type": "object"
34565 }
34566
34567 }
34568 }
34569

```

34570 **B.72.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rapidFreeze	boolean			Indicates whether the unit has a rapid freeze capability active.

if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
filter	integer		Read Only	Percentage life time remaining for the water filter
value	multiple types: see schema			The value sensed or actuated by this Resource
defrost	boolean	yes		Indicates whether a defrost cycle is currently active
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rapidCool	boolean			Indicates whether the unit has a rapid cool capability active
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
rapidFreeze	boolean			Indicates whether the unit has a rapid freeze capability active.
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or

				actuated by this Resource
defrost	boolean	yes		Indicates whether a defrost cycle is currently active
id	string		Read Only	Instance ID of this specific resource
rapidCool	boolean			Indicates whether the unit has a rapid cool capability active
precision	number		Read Only	Accuracy granularity of the exposed value

34571 **B.72.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/RefrigerationResURI		get	post		

34572 **B.73 Selectable Levels**

34573 **B.73.1 Introduction**

34574 This Resource provides a set of device defined 'levels' that can be selected for an operation.
 34575 For example where a humidifier has a discrete set that model different humidity levels that can be
 34576 set.
 34577 availablelevels is an array of the levels that can be selected, these can be a number or an integer.
 34578 targetlevel is the level that has currently been selected and is written to in order to select a new
 34579 level.
 34580 When retrieved the targetlevel provides the actual value that has been selected.
 34581 Retrieves the current selectable levels.
 34582

34583 **B.73.2 Example URI**

34584 /SelectableLevelsResURI

34585 **B.73.3 Resource Type**

34586 The resource type (rt) is defined as: ['oic.r.selectablelevels'].

34587 **B.73.4 Swagger2.0 Definition**

```

34588 {
34589   "swagger": "2.0",
34590   "info": {
34591     "title": "Selectable Levels",
34592     "version": "v1.1.0-20160519",
34593     "license": {
34594       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
34595       "x-description": "Redistribution and use in source and binary forms, with or without
34596 modification, are permitted provided that the following conditions are met:\n      1.
34597 Redistributions of source code must retain the above copyright notice, this list of conditions and
34598 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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```

```

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34608 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
34609 OF SUCH DAMAGE.\n"
34610 }
34611 },
34612 "schemes": ["http"],
34613 "consumes": ["application/json"],
34614 "produces": ["application/json"],
34615 "paths": {
34616   "/SelectableLevelsResURI" : {
34617     "get": {
34618       "description": "This Resource provides a set of device defined 'levels' that can be
34619 selected for an operation.\nFor example where a humidifier has a discrete set that model different
34620 humidity levels that can be set.\navailablelevels is an array of the levels that can be selected,
34621 these can be a number or an integer.\ntargetlevel is the level that has currently been selected and
34622 is written to in order to select a new level.\nWhen retrieved the targetlevel provides the actual
34623 value that has been selected.\nRetrieves the current selectable levels.\n",
34624     "parameters": [
34625       { "$ref": "#/parameters/interface" }
34626     ],
34627     "responses": {
34628       "200": {
34629         "description": "",
34630         "x-example":
34631           {
34632             "rt": ["oic.r.selectablelevels"],
34633             "id": "unique_example_id",
34634             "availablelevels": [0,2,4,6,8],
34635             "targetlevel": 2
34636           }
34637         ,
34638         "schema": { "$ref": "#/definitions/SelectableLevels" }
34639       }
34640     }
34641   },
34642   "post": {
34643     "description": "Sets the current level from the set that is selectable",
34644     "parameters": [
34645       { "$ref": "#/parameters/interface" },
34646       {
34647         "name": "body",
34648         "in": "body",
34649         "required": true,
34650         "schema": { "$ref": "#/definitions/UpdateSchema" },
34651         "x-example":
34652           {
34653             "targetlevel": 4
34654           }
34655       }
34656     ],
34657     "responses": {
34658       "200": {
34659         "description": "",
34660         "x-example":
34661           {
34662             "targetlevel": 4
34663           }
34664         ,
34665         "schema": { "$ref": "#/definitions/UpdateSchema" }
34666       },
34667       "403": {
34668         "description": "Generated by a Server when an attempt is made to update to a
34669 targetlevel that is not in the set of availablelevels",
34670         "x-example":
34671           {
34672             "id": "unique_example_id",
34673             "availablelevels": [0,2,4,6,8],
34674             "targetlevel": 2
34675           }
34676         ,
34677         "schema": { "$ref": "#/definitions/SelectableLevels" }

```



```

34678     }
34679   }
34680 }
34681 }
34682 },
34683 "parameters": {
34684   "interface": {
34685     "in": "query",
34686     "name": "if",
34687     "type": "string",
34688     "enum": ["oic.if.a", "oic.if.baseline"]
34689   }
34690 },
34691 "definitions": {
34692   "SelectableLevels": {
34693     {
34694     "properties": {
34695       "availablelevels": {
34696         "description": "Set of levels from which one can be selected",
34697         "items": {
34698           "anyOf": [
34699             {
34700               "type": "integer"
34701             },
34702             {
34703               "type": "number"
34704             }
34705           ]
34706         },
34707         "readOnly": true,
34708         "type": "array"
34709       },
34710       "id": {
34711         "description": "Instance ID of this specific resource",
34712         "maxLength": 64,
34713         "readOnly": true,
34714         "type": "string"
34715       },
34716       "if": {
34717         "description": "The interface set supported by this resource",
34718         "items": {
34719           "enum": [
34720             "oic.if.baseline",
34721             "oic.if.ll",
34722             "oic.if.b",
34723             "oic.if.lb",
34724             "oic.if.rw",
34725             "oic.if.r",
34726             "oic.if.a",
34727             "oic.if.s"
34728           ],
34729           "type": "string"
34730         },
34731         "minItems": 1,
34732         "readOnly": true,
34733         "type": "array"
34734       },
34735       "n": {
34736         "description": "Friendly name of the resource",
34737         "maxLength": 64,
34738         "readOnly": true,
34739         "type": "string"
34740       },
34741       "precision": {
34742         "description": "Accuracy granularity of the exposed value",
34743         "readOnly": true,
34744         "type": "number"
34745       },
34746       "range": {
34747         "description": "The valid range for the value Property",
34748         "items": {

```

```

34749         "anyOf": [
34750             {
34751                 "type": "number"
34752             },
34753             {
34754                 "type": "integer"
34755             }
34756         ]
34757     },
34758     "maxItems": 2,
34759     "minItems": 2,
34760     "readOnly": true,
34761     "type": "array"
34762 },
34763 "rt": {
34764     "description": "Resource Type",
34765     "items": {
34766         "maxLength": 64,
34767         "type": "string"
34768     },
34769     "minItems": 1,
34770     "readOnly": true,
34771     "type": "array"
34772 },
34773 "step": {
34774     "anyOf": [
34775         {
34776             "type": "integer"
34777         },
34778         {
34779             "type": "number"
34780         }
34781     ],
34782     "description": "Step value across the defined range",
34783     "readOnly": true
34784 },
34785 "targetlevel": {
34786     "anyOf": [
34787         {
34788             "type": "integer"
34789         },
34790         {
34791             "type": "number"
34792         }
34793     ],
34794     "description": "The target level from the available selectable set"
34795 },
34796 "value": {
34797     "anyOf": [
34798         {
34799             "type": "array"
34800         },
34801         {
34802             "type": "string"
34803         },
34804         {
34805             "type": "boolean"
34806         },
34807         {
34808             "type": "integer"
34809         },
34810         {
34811             "type": "number"
34812         },
34813         {
34814             "type": "object"
34815         }
34816     ],
34817     "description": "The value sensed or actuated by this Resource"
34818 }
34819 },

```

```

34820         "required": [
34821             "availablelevels",
34822             "targetlevel"
34823         ],
34824         "type": "object"
34825     }
34826
34827
34828     "UpdateSchema" :
34829     {
34830         "properties": {
34831             "id": {
34832                 "description": "Instance ID of this specific resource",
34833                 "maxLength": 64,
34834                 "readOnly": true,
34835                 "type": "string"
34836             },
34837             "if": {
34838                 "description": "The interface set supported by this resource",
34839                 "items": {
34840                     "enum": [
34841                         "oic.if.baseline",
34842                         "oic.if.ll",
34843                         "oic.if.b",
34844                         "oic.if.lb",
34845                         "oic.if.rw",
34846                         "oic.if.r",
34847                         "oic.if.a",
34848                         "oic.if.s"
34849                     ],
34850                     "type": "string"
34851                 },
34852                 "minItems": 1,
34853                 "readOnly": true,
34854                 "type": "array"
34855             },
34856             "n": {
34857                 "description": "Friendly name of the resource",
34858                 "maxLength": 64,
34859                 "readOnly": true,
34860                 "type": "string"
34861             },
34862             "precision": {
34863                 "description": "Accuracy granularity of the exposed value",
34864                 "readOnly": true,
34865                 "type": "number"
34866             },
34867             "range": {
34868                 "description": "The valid range for the value Property",
34869                 "items": {
34870                     "anyOf": [
34871                         {
34872                             "type": "number"
34873                         },
34874                         {
34875                             "type": "integer"
34876                         }
34877                     ]
34878                 },
34879                 "maxItems": 2,
34880                 "minItems": 2,
34881                 "readOnly": true,
34882                 "type": "array"
34883             },
34884             "rt": {
34885                 "description": "Resource Type",
34886                 "items": {
34887                     "maxLength": 64,
34888                     "type": "string"
34889                 },
34890                 "minItems": 1,

```

```

34891         "readOnly": true,
34892         "type": "array"
34893     },
34894     "step": {
34895         "anyOf": [
34896             {
34897                 "type": "integer"
34898             },
34899             {
34900                 "type": "number"
34901             }
34902         ],
34903         "description": "Step value across the defined range",
34904         "readOnly": true
34905     },
34906     "targetlevel": {
34907         "description": "The target level from the available selectable set",
34908         "type": [
34909             "integer",
34910             "number"
34911         ]
34912     },
34913     "value": {
34914         "anyOf": [
34915             {
34916                 "type": "array"
34917             },
34918             {
34919                 "type": "string"
34920             },
34921             {
34922                 "type": "boolean"
34923             },
34924             {
34925                 "type": "integer"
34926             },
34927             {
34928                 "type": "number"
34929             },
34930             {
34931                 "type": "object"
34932             }
34933         ],
34934         "description": "The value sensed or actuated by this Resource"
34935     }
34936 },
34937 "required": [
34938     "targetlevel"
34939 ],
34940 "type": "object"
34941 }
34942 }
34943 }
34944 }
34945 }

```

34946 B.73.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
targetlevel	['integer', 'number']	yes		The target level from the available selectable set
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
targetlevel	multiple types: see schema	yes		The target level from the available selectable set
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
availablelevels	array: see schema	yes	Read Only	Set of levels from which one can be selected
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

34947

B.73.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SelectableLevelsResURI		get	post		

34948 **B.74 Signal Strength**

34949 **B.74.1 Introduction**

34950 This resource describes the strength of a signal by means of lqi and rssi.
34951 The lqi is a floating point number that represents Link Quality Indicator.
34952 The rssi is a floating point number that represents the received signal strength indicator.
34953

34954 **B.74.2 Example URI**

34955 /SignalStrengthResURI

34956 **B.74.3 Resource Type**

34957 The resource type (rt) is defined as: ['oic.r.signalstrength'].

34958 **B.74.4 Swagger2.0 Definition**

```

34959 {
34960   "swagger": "2.0",
34961   "info": {
34962     "title": "Signal Strength",
34963     "version": "v1.1.0-20160519",
34964     "license": {
34965       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
34966       "x-description": "Redistribution and use in source and binary forms, with or without
34967 modification, are permitted provided that the following conditions are met:\n      1.
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34969 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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34978 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
34979 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
34980 OF SUCH DAMAGE.\n"
34981     }
34982   },
34983   "schemes": ["http"],
34984   "consumes": ["application/json"],
34985   "produces": ["application/json"],
34986   "paths": {
34987     "/SignalStrengthResURI" : {
34988       "get": {
34989         "description": "This resource describes the strength of a signal by means of lqi and
34990 rssi.\nThe lqi is a floating point number that represents Link Quality Indicator.\nThe rssi is a
34991 floating point number that represents the received signal strength indicator.\n",
34992         "parameters": [
34993           { "$ref": "#/parameters/interface" }
34994         ],
34995         "responses": {
34996           "200": {
34997             "description": "",
34998             "x-example":
34999             {
35000               "rt": ["oic.r.signalstrength"],
35001               "id": "unique_example_id",
35002               "lqi": 10.0,
35003               "rssi": 55.0
35004             }
35005           },
35006           "schema": { "$ref": "#/definitions/SignalStrength" }
35007         }
35008       }
35009     }
35010   }

```

```

35011 },
35012 "parameters": {
35013   "interface" : {
35014     "in" : "query",
35015     "name" : "if",
35016     "type" : "string",
35017     "enum" : ["oic.if.s", "oic.if.baseline"]
35018   }
35019 },
35020 "definitions": {
35021   "SignalStrength" :
35022     {
35023     "properties": {
35024       "id": {
35025         "description": "Instance ID of this specific resource",
35026         "maxLength": 64,
35027         "readOnly": true,
35028         "type": "string"
35029       },
35030       "if": {
35031         "description": "The interface set supported by this resource",
35032         "items": {
35033           "enum": [
35034             "oic.if.baseline",
35035             "oic.if.ll",
35036             "oic.if.b",
35037             "oic.if.lb",
35038             "oic.if.rw",
35039             "oic.if.r",
35040             "oic.if.a",
35041             "oic.if.s"
35042           ],
35043           "type": "string"
35044         },
35045         "minItems": 1,
35046         "readOnly": true,
35047         "type": "array"
35048       },
35049       "lqi": {
35050         "description": "current value of Link Quality Indicator",
35051         "readOnly": true,
35052         "type": "number"
35053       },
35054       "n": {
35055         "description": "Friendly name of the resource",
35056         "maxLength": 64,
35057         "readOnly": true,
35058         "type": "string"
35059       },
35060       "precision": {
35061         "description": "Accuracy granularity of the exposed value",
35062         "readOnly": true,
35063         "type": "number"
35064       },
35065       "range": {
35066         "description": "The valid range for the value Property",
35067         "items": {
35068           "anyOf": [
35069             {
35070               "type": "number"
35071             },
35072             {
35073               "type": "integer"
35074             }
35075           ]
35076         },
35077         "maxItems": 2,
35078         "minItems": 2,
35079         "readOnly": true,
35080         "type": "array"
35081       },

```

```

35082     "rssi": {
35083         "description": "current value of Received Signal Strength Indicator",
35084         "readOnly": true,
35085         "type": "number"
35086     },
35087     "rt": {
35088         "description": "Resource Type",
35089         "items": {
35090             "maxLength": 64,
35091             "type": "string"
35092         },
35093         "minItems": 1,
35094         "readOnly": true,
35095         "type": "array"
35096     },
35097     "step": {
35098         "anyOf": [
35099             {
35100                 "type": "integer"
35101             },
35102             {
35103                 "type": "number"
35104             }
35105         ],
35106         "description": "Step value across the defined range",
35107         "readOnly": true
35108     },
35109     "value": {
35110         "anyOf": [
35111             {
35112                 "type": "array"
35113             },
35114             {
35115                 "type": "string"
35116             },
35117             {
35118                 "type": "boolean"
35119             },
35120             {
35121                 "type": "integer"
35122             },
35123             {
35124                 "type": "number"
35125             },
35126             {
35127                 "type": "object"
35128             }
35129         ],
35130         "description": "The value sensed or actuated by this Resource"
35131     }
35132 },
35133 "required": [
35134     "lqi",
35135     "rssi"
35136 ],
35137 "type": "object"
35138 }
35139 }
35140 }
35141 }
35142

```

35143 **B.74.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type

value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
rsqi	number	yes	Read Only	current value of Received Signal Strength Indicator
lqi	number	yes	Read Only	current value of Link Quality Indicator
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range

35144 **B.74.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/SignalStrengthResURI		get			

35145 **B.75 Sleep Sensor**

35146 **B.75.1 Introduction**

35147 This resource describes whether human sleep has been sensed or not.
35148 The value is a boolean.
35149 A value of 'true' means that sleep has been sensed.
35150 A value of 'false' means that sleep not been sensed.
35151

35152 **B.75.2 Example URI**

35153 /SleepSensorResURI

35154 **B.75.3 Resource Type**

35155 The resource type (rt) is defined as: ['oic.r.sensor.sleep'].

35156 **B.75.4 Swagger2.0 Definition**

```

35157 {
35158   "swagger": "2.0",
35159   "info": {
35160     "title": "Sleep Sensor",
35161     "version": "v1.1.0-20160519",
35162     "license": {
35163       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
35164       "x-description": "Redistribution and use in source and binary forms, with or without
35165 modification, are permitted provided that the following conditions are met:\n      1.
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35177 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
35178 OF SUCH DAMAGE.\n"
35179     },
35180   },
35181   "schemes": ["http"],
35182   "consumes": ["application/json"],
35183   "produces": ["application/json"],
35184   "paths": {
35185     "/SleepSensorResURI" : {
35186       "get": {
35187         "description": "This resource describes whether human sleep has been sensed or not.\nThe
35188 value is a boolean.\nA value of 'true' means that sleep has been sensed.\nA value of 'false' means
35189 that sleep not been sensed.\n",
35190         "parameters": [
35191           { "$ref": "#/parameters/interface" }
35192         ],
35193         "responses": {
35194           "200": {
35195             "description" : "",
35196             "x-example":
35197               {
35198                 "rt": ["oic.r.sensor.sleep"],
35199                 "id": "unique_example_id",
35200                 "value": true
35201               }
35202           },
35203           "schema": { "$ref": "#/definitions/sleep" }
35204         }
35205       }
35206     }
35207   },
35208 },
35209 "parameters": {
35210   "interface" : {
35211     "in" : "query",
35212     "name" : "if",
35213     "type" : "string",
35214     "enum" : ["oic.if.s", "oic.if.baseline"]
35215   }
35216 },
35217 "definitions": {
35218   "sleep" :
35219     {
35220     "properties": {
35221       "id": {
35222         "description": "Instance ID of this specific resource",
35223         "maxLength": 64,
35224         "readOnly": true,
35225         "type": "string"
35226       },
35227       "if": {
35228         "description": "The interface set supported by this resource",
35229         "items": {
35230           "enum": [
35231             "oic.if.baseline",
35232             "oic.if.ll",
35233             "oic.if.b",
35234             "oic.if.lb",
35235             "oic.if.rw",
35236             "oic.if.r",
35237             "oic.if.a",
35238             "oic.if.s"
35239           ]

```

```

35240         "type": "string"
35241     },
35242     "minItems": 1,
35243     "readOnly": true,
35244     "type": "array"
35245 },
35246 "n": {
35247     "description": "Friendly name of the resource",
35248     "maxLength": 64,
35249     "readOnly": true,
35250     "type": "string"
35251 },
35252 "precision": {
35253     "description": "Accuracy granularity of the exposed value",
35254     "readOnly": true,
35255     "type": "number"
35256 },
35257 "range": {
35258     "description": "The valid range for the value Property",
35259     "items": {
35260         "anyOf": [
35261             {
35262                 "type": "number"
35263             },
35264             {
35265                 "type": "integer"
35266             }
35267         ]
35268     },
35269     "maxItems": 2,
35270     "minItems": 2,
35271     "readOnly": true,
35272     "type": "array"
35273 },
35274 "rt": {
35275     "description": "Resource Type",
35276     "items": {
35277         "maxLength": 64,
35278         "type": "string"
35279     },
35280     "minItems": 1,
35281     "readOnly": true,
35282     "type": "array"
35283 },
35284 "step": {
35285     "anyOf": [
35286         {
35287             "type": "integer"
35288         },
35289         {
35290             "type": "number"
35291         }
35292     ],
35293     "description": "Step value across the defined range",
35294     "readOnly": true
35295 },
35296 "value": {
35297     "description": "true = sensed, false = not sensed.",
35298     "readOnly": true,
35299     "type": "boolean"
35300 }
35301 },
35302 "required": [
35303     "value"
35304 ],
35305 "type": "object"
35306 }
35307
35308 }
35309 }
35310

```

35311

B.75.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value

35312

B.75.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SleepSensorResURI		get			

35313

B.76 Smoke Sensor

35314

B.76.1 Introduction

35315 This resource describes whether smoke has been sensed or not.
 35316 The value is a boolean.
 35317 A value of 'true' means that smoke has been sensed.
 35318 A value of 'false' means that smoke not been sensed.
 35319

35320

B.76.2 Example URI

35321

/SmokeSensorResURI

35322

B.76.3 Resource Type

35323

The resource type (rt) is defined as: ['oic.r.sensor.smoke'].

35324

B.76.4 Swagger2.0 Definition

35325

35326

35327

35328

35329

35330

35331

35332

35333

35334

35335

35336

35337

```
{
  "swagger": "2.0",
  "info": {
    "title": "Smoke Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
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```

```

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35345 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
35346 OF SUCH DAMAGE.\n"
35347 }
35348 },
35349 "schemes": ["http"],
35350 "consumes": ["application/json"],
35351 "produces": ["application/json"],
35352 "paths": {
35353   "/SmokeSensorResURI" : {
35354     "get": {
35355       "description": "This resource describes whether smoke has been sensed or not.\nThe value is
35356 a boolean.\nA value of 'true' means that smoke has been sensed.\nA value of 'false' means that
35357 smoke not been sensed.\n",
35358       "parameters": [
35359         {"$ref": "#/parameters/interface"}
35360       ],
35361       "responses": {
35362         "200": {
35363           "description": "",
35364           "x-example":
35365             {
35366               "rt": ["oic.r.sensor.smoke"],
35367               "id": "unique_example_id",
35368               "value": true
35369             }
35370           ,
35371           "schema": {"$ref": "#/definitions/smoke"}
35372         }
35373       }
35374     }
35375   }
35376 },
35377 "parameters": {
35378   "interface" : {
35379     "in" : "query",
35380     "name" : "if",
35381     "type" : "string",
35382     "enum" : ["oic.if.s", "oic.if.baseline"]
35383   }
35384 },
35385 "definitions": {
35386   "smoke" :
35387     {
35388       "properties": {
35389         "id": {
35390           "description": "Instance ID of this specific resource",
35391           "maxLength": 64,
35392           "readOnly": true,
35393           "type": "string"
35394         },
35395         "if": {
35396           "description": "The interface set supported by this resource",
35397           "items": {
35398             "enum": [
35399               "oic.if.baseline",
35400               "oic.if.ll",
35401               "oic.if.b",
35402               "oic.if.lb",
35403               "oic.if.rw",
35404               "oic.if.r",
35405               "oic.if.a",
35406               "oic.if.s"
35407             ],
35408             "type": "string"

```

```

35409     },
35410     "minItems": 1,
35411     "readOnly": true,
35412     "type": "array"
35413   },
35414   "n": {
35415     "description": "Friendly name of the resource",
35416     "maxLength": 64,
35417     "readOnly": true,
35418     "type": "string"
35419   },
35420   "precision": {
35421     "description": "Accuracy granularity of the exposed value",
35422     "readOnly": true,
35423     "type": "number"
35424   },
35425   "range": {
35426     "description": "The valid range for the value Property",
35427     "items": {
35428       "anyOf": [
35429         {
35430           "type": "number"
35431         },
35432         {
35433           "type": "integer"
35434         }
35435       ]
35436     },
35437     "maxItems": 2,
35438     "minItems": 2,
35439     "readOnly": true,
35440     "type": "array"
35441   },
35442   "rt": {
35443     "description": "Resource Type",
35444     "items": {
35445       "maxLength": 64,
35446       "type": "string"
35447     },
35448     "minItems": 1,
35449     "readOnly": true,
35450     "type": "array"
35451   },
35452   "step": {
35453     "anyOf": [
35454       {
35455         "type": "integer"
35456       },
35457       {
35458         "type": "number"
35459       }
35460     ],
35461     "description": "Step value across the defined range",
35462     "readOnly": true
35463   },
35464   "value": {
35465     "description": "true = sensed, false = not sensed.",
35466     "readOnly": true,
35467     "type": "boolean"
35468   }
35469 },
35470 "required": [
35471   "value"
35472 ],
35473 "type": "object"
35474 }
35475 }
35476 }
35477 }
35478

```

35479

B.76.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value

35480

B.76.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SmokeSensorResURI		get			

35481

B.77 Speech Synthesis-TTS

35482

B.77.1 Introduction

35483 This resource may be created on the OIC Server that is capable of rendering speech by an OIC
 35484 Client

35485 and allows the client to provide an SSML document with text to render
 35486 or may be created on the OIC Server by some resident application.
 35487 The audio rendered is at this stage local to the Server (i.e. not streamed).
 35488 The utterance is an SSML document.

35489 The supportedLanguages is an array of the RFC 5646 defined language tags that are supported.
 35490 The supportedVoices is an SSML document fragment indicating the voices that are supported.
 35491 Utterance in the example shall be a properly escaped (JSON rules) SSML document. An example
 35492 is given below:

35493 "`<?xml version="1.0" encoding="ISO-8859-1"?>`

35494

35495
 35496 `<speak version="1.1" xmlns="http://www.w3.org/2001/10/synthesis"`

35497

35498 `xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"`

35500

35501
 35502 `xsi:schemaLocation="http://www.w3.org/2001/10/synthesis`

35503

35504 `http://www.w3.org/TR/speech-synthesis11/synthesis.xsd"`
 35505

35506
35507
35508 xml:lang="en-US">
35509
35510
35511
35512
35513
35514 The title of the movie is:
35515
35516
35517 "Monty Pythons The Meaning of Life"
35518
35519
35520 which is directed by Terry Jones.
35521
35522
35523 </speak"
35524

35525 **B.77.2 Example URI**

35526 /SpeechTTSResURI

35527 **B.77.3 Resource Type**

35528 The resource type (rt) is defined as: ['oic.r.speech.tts'].

35529 **B.77.4 Swagger2.0 Definition**

```
35530 {  
35531   "swagger": "2.0",  
35532   "info": {  
35533     "title": "Speech Synthesis-TTS",  
35534     "version": "v1.1.0-20160519",  
35535     "license": {  
35536       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
35537       "x-description": "Redistribution and use in source and binary forms, with or without  
35538 modification, are permitted provided that the following conditions are met:\n      1.  
35539 Redistributions of source code must retain the above copyright notice, this list of conditions and  
35540 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
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35546 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
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35549 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
35550 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
35551 OF SUCH DAMAGE.\n"35552     }  
35553   },  
35554   "schemes": ["http"],  
35555   "consumes": ["application/json"],  
35556   "produces": ["application/json"],  
35557   "paths": {  
35558     "/SpeechTTSResURI" : {  
35559       "get": {  
35560         "description": "This resource may be created on the OIC Server that is capable of rendering  
35561 speech by an OIC Client\n and allows the client to provide an SSML document with text to render\n  
35562 or may be created on the OIC Server by some resident application.\nThe audio rendered is at this  
35563 stage local to the Server (i.e. not streamed).\nThe utterance is an SSML document.\nThe  
35564 supportedLanguages is an array of the RFC 5646 defined language tags that are supported.\nThe  
35565 supportedVoices is an SSML document fragment indicating the voices that are supported.\nUtterance  
35566 in the example shall be a properly escaped (JSON rules) SSML document. An example is given below:\n
```



```

35567 \<?xml version="1.0" encoding="ISO-8859-1"?>\n\r\n <speak version="1.1"
35568 xmlns="http://www.w3.org/2001/10/synthesis"\n\r\n
35569 \txmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"\n\r\n
35570 \txsi:schemaLocation="http://www.w3.org/2001/10/synthesis\n\r\n
35571 \thttp://www.w3.org/TR/speech-synthesis11/synthesis.xsd"\n\r\n \txml:lang="en-US">\n\r\n
35572 \n\r\n \tThe title of the movie is:\n\r\n \t"Monty Pythons The Meaning of Life"\n\r\n \twhich
35573 is directed by Terry Jones.\n\r\n </speak"\n",
35574 "parameters": [
35575   {"$ref": "#/parameters/interface"}
35576 ],
35577 "responses": {
35578   "200": {
35579     "description": "",
35580     "x-example":
35581       {
35582         "rt": ["oic.r.speech.tts"],
35583         "id": "unique_example_id",
35584         "utterance": "SSML Document",
35585         "supportedLanguages": ["en-US", "en-GB", "fr-CA"],
35586         "supportedVoices": "<voice gender="female" variant="2"></voice>\n\r<voice
35587 name="Mike"></voice>"
35588       }
35589     ,
35590     "schema": {"$ref": "#/definitions/Speech" }
35591   }
35592 },
35593 },
35594 "post": {
35595   "description": "Changes the utterance being rendered.\nExample shows a change in language
35596 selected.\n",
35597   "parameters": [
35598     {"$ref": "#/parameters/interface"},
35599     {
35600       "name": "body",
35601       "in": "body",
35602       "required": true,
35603       "schema": {"$ref": "#/definitions/Speech" },
35604       "x-example":
35605         {
35606           "rt": ["oic.r.speech.tts"],
35607           "id": "unique_example_id",
35608           "utterance": "SSML Document"
35609         }
35610     }
35611   ],
35612   "responses": {
35613     "200": {
35614       "description": "",
35615       "x-example":
35616         {
35617           "rt": ["oic.r.speech.tts"],
35618           "id": "unique_example_id",
35619           "utterance": "SSML Document"
35620         }
35621     ,
35622     "schema": {"$ref": "#/definitions/Speech" }
35623   }
35624 },
35625 }
35626 },
35627 },
35628 "parameters": {
35629   "interface": {
35630     "in": "query",
35631     "name": "if",
35632     "type": "string",
35633     "enum": ["oic.if.a", "oic.if.baseline"]
35634   }
35635 },
35636 "definitions": {
35637   "Speech":

```

```

35638     {
35639 "properties": {
35640   "id": {
35641     "description": "Instance ID of this specific resource",
35642     "maxLength": 64,
35643     "readOnly": true,
35644     "type": "string"
35645   },
35646   "if": {
35647     "description": "The interface set supported by this resource",
35648     "items": {
35649       "enum": [
35650         "oic.if.baseline",
35651         "oic.if.ll",
35652         "oic.if.b",
35653         "oic.if.lb",
35654         "oic.if.rw",
35655         "oic.if.x",
35656         "oic.if.a",
35657         "oic.if.s"
35658       ],
35659       "type": "string"
35660     },
35661     "minItems": 1,
35662     "readOnly": true,
35663     "type": "array"
35664   },
35665   "n": {
35666     "description": "Friendly name of the resource",
35667     "maxLength": 64,
35668     "readOnly": true,
35669     "type": "string"
35670   },
35671   "precision": {
35672     "description": "Accuracy granularity of the exposed value",
35673     "readOnly": true,
35674     "type": "number"
35675   },
35676   "range": {
35677     "description": "The valid range for the value Property",
35678     "items": {
35679       "anyOf": [
35680         {
35681           "type": "number"
35682         },
35683         {
35684           "type": "integer"
35685         }
35686       ]
35687     },
35688     "maxItems": 2,
35689     "minItems": 2,
35690     "readOnly": true,
35691     "type": "array"
35692   },
35693   "rt": {
35694     "description": "Resource Type",
35695     "items": {
35696       "maxLength": 64,
35697       "type": "string"
35698     },
35699     "minItems": 1,
35700     "readOnly": true,
35701     "type": "array"
35702   },
35703   "step": {
35704     "anyOf": [
35705       {
35706         "type": "integer"
35707       },
35708       {

```

```

35709         "type": "number"
35710     }
35711 ],
35712 "description": "Step value across the defined range",
35713 "readOnly": true
35714 },
35715 "supportedLanguages": {
35716     "description": "array of supported language tags",
35717     "items": {
35718         "type": "string"
35719     },
35720     "readOnly": true,
35721     "type": "array"
35722 },
35723 "supportedVoices": {
35724     "description": "SSML document fragment indicating supported voices",
35725     "readOnly": true,
35726     "type": "string"
35727 },
35728 "utterance": {
35729     "description": "SSML document including the speech body",
35730     "type": "string"
35731 },
35732 "value": {
35733     "anyOf": [
35734         {
35735             "type": "array"
35736         },
35737         {
35738             "type": "string"
35739         },
35740         {
35741             "type": "boolean"
35742         },
35743         {
35744             "type": "integer"
35745         },
35746         {
35747             "type": "number"
35748         },
35749         {
35750             "type": "object"
35751         }
35752     ],
35753     "description": "The value sensed or actuated by this Resource"
35754 }
35755 },
35756 "required": [
35757     "utterance"
35758 ],
35759 "type": "object"
35760 }
35761 }
35762 }
35763 }
35764

```

35765 B.77.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource

range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
utterance	string	yes		SSML document including the speech body
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
supportedLanguages	array: see schema		Read Only	array of supported language tags
supportedVoices	string		Read Only	SSML document fragment indicating supported voices

35766 **B.77.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/SpeechTTSResURI		get	post		

35767 **B.78 Temperature**

35768 **B.78.1 Introduction**

35769 This resource describes a sensed or actuated Temperature value.
35770 The temperature describes the current value measured.
35771 The units is a single value that is one of C, F or K.
35772 It provides the unit of measurement for the temperature value.
35773 It is a read-only value that is provided by the server.
35774 If the units Property is missing the default is Celsius [C].
35775 When range (from oic.r.baseresource) is omitted the default is +/- MAXINT.
35776 Retrieves the current temperature value.
35777 A client can specify the units for the requested temperature by use of a query parameter.
35778 If no query parameter is provided the server provides its default measure or set value.
35779 It is recommended to return always the units Property in the result.
35780

35781 **B.78.2 Example URI**

35782 /TemperatureResURI

35783 **B.78.3 Resource Type**

35784 The resource type (rt) is defined as: ['oic.r.temperature'].

35785 **B.78.4 Swagger2.0 Definition**

```
35786 {
35787   "swagger": "2.0",
35788   "info": {
35789     "title": "Temperature",
35790     "version": "v1.1.0-20160519",
35791     "license": {
35792       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
35793       "x-description": "Redistribution and use in source and binary forms, with or without
35794 modification, are permitted provided that the following conditions are met:\n      1.
35795 Redistributions of source code must retain the above copyright notice, this list of conditions and
35796 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
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35802 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
35803 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
35804 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
35805 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
35806 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
35807 OF SUCH DAMAGE.\n"
35808     }
35809   },
35810   "schemes": ["http"],
35811   "consumes": ["application/json"],
35812   "produces": ["application/json"],
35813   "paths": {
35814     "/TemperatureResURI" : {
35815       "get": {
35816         "description": "This resource describes a sensed or actuated Temperature value.\nThe
35817 temperature describes the current value measured.\nThe units is a single value that is one of C, F
35818 or K.\nIt provides the unit of measurement for the temperature value.\nIt is a read-only value that
35819 is provided by the server.\nIf the units Property is missing the default is Celsius [C].\nWhen
35820 range (from oic.r.baseresource) is omitted the default is +/- MAXINT.\nRetrieves the current
35821 temperature value.\nA client can specify the units for the requested temperature by use of a query
35822 parameter.\nIf no query parameter is provided the server provides its default measure or set
35823 value.\nIt is recommended to return always the units Property in the result.\n",
35824         "parameters": [
35825           { "$ref": "#/parameters/interface" },
35826           {
35827             "in": "query",
35828             "description": "Units",
35829             "type": "string",
35830             "enum": ["C", "F", "K"],
35831             "name": "units"
35832           }
35833         ],
35834         "responses": {
35835           "200": {
35836             "description": "",
35837             "x-example": {
35838               "rt": ["oic.r.temperature"],
35839               "id": "unique_example_id",
35840               "temperature": 20.0,
35841               "units": "C",
35842               "range": [0.0,100.0]
35843             }
35844           },
35845           "403": {
35846             "description": "This response is generated by the OIC Server when the client
35847 sends:\n A retrieve with q queryParameter indicating a unit that the server does not support.\nThe
35848 server responds with the current resource representation including the\nunits property illustrating
35849 the supported units and the error.\n",
35850             "x-example": {
35851               "rt": ["oic.r.temperature"],
35852               "id": "unique_example_id",
35853               "temperature": 20.0,
35854               "units": "C",
35855               "range": [0.0,100.0]
35856             }
35857           }
35858         }
35859       }
35860     }
35861   }
35862 }
```

```

35855         "id":          "unique_example_id",
35856         "temperature": 20.0,
35857         "units":       "C"
35858     }
35859     },
35860     "schema": { "$ref": "#/definitions/Temperature" }
35861 }
35862 },
35863 },
35864 "post": {
35865     "description": "Sets the desired temperature value.\nIf a unit is included and the server
35866 does not support the unit indicated the request will fail.\nIf the units are omitted value is taken
35867 to be in C.\n",
35868     "parameters": [
35869         { "$ref": "#/parameters/interface" },
35870         {
35871             "name": "body",
35872             "in": "body",
35873             "required": true,
35874             "schema": { "$ref": "#/definitions/Temperature" },
35875             "x-example":
35876                 {
35877                     "id":          "unique_example_id",
35878                     "temperature": 18.0
35879                 }
35880         }
35881     ],
35882     "responses": {
35883         "200": {
35884             "description": "",
35885             "x-example":
35886                 {
35887                     "id":          "unique_example_id",
35888                     "temperature": 18.0
35889                 }
35890         },
35891         "schema": { "$ref": "#/definitions/Temperature" }
35892     },
35893     "403": {
35894         "description": "This response is generated by the OIC Server when the client
35895 sends:\n An update with an out of range property value for temperature.\n An update with an
35896 unsupported unit for this server.\nThe server responds with the current resource representation
35897 including\nthe range property illustrating the supported range and the error.\n",
35898         "x-example":
35899             {
35900                 "id":          "unique_example_id",
35901                 "temperature": 20.0,
35902                 "units":       "C",
35903                 "range":       [0.0,100.0]
35904             }
35905         },
35906         "schema": { "$ref": "#/definitions/Temperature" }
35907     }
35908 }
35909 }
35910 },
35911 },
35912 "parameters": {
35913     "interface": {
35914         "in": "query",
35915         "name": "if",
35916         "type": "string",
35917         "enum": ["oic.if.a", "oic.if.s", "oic.if.baseline"]
35918     }
35919 },
35920 "definitions": {
35921     "Temperature":
35922         {
35923             "properties": {
35924                 "id": {
35925                     "description": "Instance ID of this specific resource",

```

```

35926         "maxLength": 64,
35927         "readOnly": true,
35928         "type": "string"
35929     },
35930     "if": {
35931         "description": "The interface set supported by this resource",
35932         "items": {
35933             "enum": [
35934                 "oic.if.baseline",
35935                 "oic.if.ll",
35936                 "oic.if.b",
35937                 "oic.if.lb",
35938                 "oic.if.rw",
35939                 "oic.if.r",
35940                 "oic.if.a",
35941                 "oic.if.s"
35942             ],
35943             "type": "string"
35944         },
35945         "minItems": 1,
35946         "readOnly": true,
35947         "type": "array"
35948     },
35949     "n": {
35950         "description": "Friendly name of the resource",
35951         "maxLength": 64,
35952         "readOnly": true,
35953         "type": "string"
35954     },
35955     "precision": {
35956         "description": "Accuracy granularity of the exposed value",
35957         "readOnly": true,
35958         "type": "number"
35959     },
35960     "range": {
35961         "description": "The valid range for the value Property",
35962         "items": {
35963             "anyOf": [
35964                 {
35965                     "type": "number"
35966                 },
35967                 {
35968                     "type": "integer"
35969                 }
35970             ]
35971         },
35972         "maxItems": 2,
35973         "minItems": 2,
35974         "readOnly": true,
35975         "type": "array"
35976     },
35977     "rt": {
35978         "description": "Resource Type",
35979         "items": {
35980             "maxLength": 64,
35981             "type": "string"
35982         },
35983         "minItems": 1,
35984         "readOnly": true,
35985         "type": "array"
35986     },
35987     "step": {
35988         "anyOf": [
35989             {
35990                 "type": "integer"
35991             },
35992             {
35993                 "type": "number"
35994             }
35995         ],
35996         "description": "Step value across the defined range",

```

```

35997         "readOnly": true
35998     },
35999     "temperature": {
36000         "description": "Current temperature setting or measurement",
36001         "type": "number"
36002     },
36003     "units": {
36004         "description": "Units for the temperature value",
36005         "enum": [
36006             "C",
36007             "F",
36008             "K"
36009         ],
36010         "readOnly": true
36011     },
36012     "value": {
36013         "anyOf": [
36014             {
36015                 "type": "array"
36016             },
36017             {
36018                 "type": "string"
36019             },
36020             {
36021                 "type": "boolean"
36022             },
36023             {
36024                 "type": "integer"
36025             },
36026             {
36027                 "type": "number"
36028             },
36029             {
36030                 "type": "object"
36031             }
36032         ],
36033         "description": "The value sensed or actuated by this Resource"
36034     }
36035 },
36036 "required": [
36037     "temperature"
36038 ],
36039 "type": "object"
36040 }
36041 }
36042 }
36043 }
36044

```

B.78.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
temperature	number	yes		Current temperature setting or measurement
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

value	multiple types: see schema			The value sensed or actuated by this Resource
units	multiple types: see schema		Read Only	Units for the temperature value
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource

36046 **B.78.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TemperatureResURI		get	post		

36047 **B.79 Three Axis Sensor**

36048 **B.79.1 Introduction**

36049 This resource provides a representation of the measurement from a three-axis sensor.
 36050 The orientation is an array of numbers representing x-plane, y-plane and z-plane values.
 36051 The unit of measurement for each pane is 'g'.
 36052

36053 **B.79.2 Example URI**

36054 /ThreeAxisResURI

36055 **B.79.3 Resource Type**

36056 The resource type (rt) is defined as: ['oic.r.sensor.threeaxis'].

36057 **B.79.4 Swagger2.0 Definition**

```

36058 {
36059   "swagger": "2.0",
36060   "info": {
36061     "title": "Three Axis Sensor",
36062     "version": "v1.1.0-20160519",
36063     "license": {
36064       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
36065       "x-description": "Redistribution and use in source and binary forms, with or without
36066 modification, are permitted provided that the following conditions are met:\n      1.
36067 Redistributions of source code must retain the above copyright notice, this list of conditions and
36068 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
36069 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
36070 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
36071 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
36072 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
36073 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
36074 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
36075 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
36076 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
36077 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
36078 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
36079 OF SUCH DAMAGE.\n"
36080     }
36081   },
36082   "schemes": ["http"],

```

```

36083     "consumes": ["application/json"],
36084     "produces": ["application/json"],
36085     "paths": {
36086         "/ThreeAxisResURI" : {
36087             "get": {
36088                 "description": "This resource provides a representation of the measurement from a three-
36089 axis sensor.\n\nThe orientation is an array of numbers representing x-plane, y-plane and z-plane
36090 values.\n\nThe unit of measurement for each pane is 'g'.\n",
36091                 "parameters": [
36092                     { "$ref": "#/parameters/interface" }
36093                 ],
36094                 "responses": {
36095                     "200": {
36096                         "description": "",
36097                         "x-example":
36098                             {
36099                                 "rt": ["oic.r.sensor.threeaxis"],
36100                                 "id": "unique_example_id",
36101                                 "orientation": [0.7, 1.1, -0.2]
36102                             }
36103                             ,
36104                         "schema": { "$ref": "#/definitions/threeAxis" }
36105                     }
36106                 }
36107             }
36108         }
36109     },
36110     "parameters": {
36111         "interface" : {
36112             "in" : "query",
36113             "name" : "if",
36114             "type" : "string",
36115             "enum" : ["oic.if.s", "oic.if.baseline"]
36116         }
36117     },
36118     "definitions": {
36119         "threeAxis" :
36120         {
36121             "properties": {
36122                 "id": {
36123                     "description": "Instance ID of this specific resource",
36124                     "maxLength": 64,
36125                     "readOnly": true,
36126                     "type": "string"
36127                 },
36128                 "if": {
36129                     "description": "The interface set supported by this resource",
36130                     "items": {
36131                         "enum": [
36132                             "oic.if.baseline",
36133                             "oic.if.ll",
36134                             "oic.if.b",
36135                             "oic.if.lb",
36136                             "oic.if.rw",
36137                             "oic.if.r",
36138                             "oic.if.a",
36139                             "oic.if.s"
36140                         ],
36141                         "type": "string"
36142                     },
36143                     "minItems": 1,
36144                     "readOnly": true,
36145                     "type": "array"
36146                 },
36147                 "n": {
36148                     "description": "Friendly name of the resource",
36149                     "maxLength": 64,
36150                     "readOnly": true,
36151                     "type": "string"
36152                 },
36153                 "orientation": {

```

```

36154         "description": "Array containing x-plane, y-plane and z-plane orientation in 'g'.",
36155         "items": {
36156             "type": "number"
36157         },
36158         "maxItems": 3,
36159         "minItems": 3,
36160         "readOnly": true,
36161         "type": "array"
36162     },
36163     "precision": {
36164         "description": "Accuracy granularity of the exposed value",
36165         "readOnly": true,
36166         "type": "number"
36167     },
36168     "range": {
36169         "description": "The valid range for the value Property",
36170         "items": {
36171             "anyOf": [
36172                 {
36173                     "type": "number"
36174                 },
36175                 {
36176                     "type": "integer"
36177                 }
36178             ]
36179         },
36180         "maxItems": 2,
36181         "minItems": 2,
36182         "readOnly": true,
36183         "type": "array"
36184     },
36185     "rt": {
36186         "description": "Resource Type",
36187         "items": {
36188             "maxLength": 64,
36189             "type": "string"
36190         },
36191         "minItems": 1,
36192         "readOnly": true,
36193         "type": "array"
36194     },
36195     "step": {
36196         "anyOf": [
36197             {
36198                 "type": "integer"
36199             },
36200             {
36201                 "type": "number"
36202             }
36203         ],
36204         "description": "Step value across the defined range",
36205         "readOnly": true
36206     },
36207     "value": {
36208         "anyOf": [
36209             {
36210                 "type": "array"
36211             },
36212             {
36213                 "type": "string"
36214             },
36215             {
36216                 "type": "boolean"
36217             },
36218             {
36219                 "type": "integer"
36220             },
36221             {
36222                 "type": "number"
36223             },
36224             {

```

```

36225         "type": "object"
36226     }
36227 },
36228     "description": "The value sensed or actuated by this Resource"
36229 },
36230 },
36231     "required": [
36232         "orientation"
36233     ]
36234 }
36235 }
36236 }
36237 }
36238 }

```

36239 **B.79.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
orientation	array: see schema	yes	Read Only	Array containing x-plane, y-plane and z-plane orientation in 'g'.
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range

36240 **B.79.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ThreeAxisResURI		get			

36241 **B.80 Time Period**

36242 **B.80.1 Introduction**

36243 This resource describes the time period over which any additionally provided
36244 information is derived or bounded.
36245 The startTime and stopTime are ISO8601 encoded strings. startTime must be present.
36246 The interval is the interval of the time period in minutes, if present this value must be no less than
36247 1 minute.
36248 stopTime and interval are mutually exclusive; both Properties cannot be present in a Resource

36249 instance.
36250 Defines a time period for information retrieval, action or other behaviour.
36251

36252 **B.80.2 Example URI**

36253 /TimePeriodResURI

36254 **B.80.3 Resource Type**

36255 The resource type (rt) is defined as: ['oic.r.time.period'].

36256 **B.80.4 Swagger2.0 Definition**

```
36257 {  
36258   "swagger": "2.0",  
36259   "info": {  
36260     "title": "Time Period",  
36261     "version": "v1.1.0-20160519",  
36262     "license": {  
36263       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
36264       "x-description": "Redistribution and use in source and binary forms, with or without  
36265 modification, are permitted provided that the following conditions are met:\n      1.  
36266 Redistributions of source code must retain the above copyright notice, this list of conditions and  
36267 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
36268 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
36269 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
36270 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
36271 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
36272 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
36273 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
36274 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
36275 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
36276 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
36277 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
36278 OF SUCH DAMAGE.\n    }  
36279   },  
36280   "schemes": ["http"],  
36281   "consumes": ["application/json"],  
36282   "produces": ["application/json"],  
36283   "paths": {  
36284     "/TimePeriodResURI" : {  
36285       "get": {  
36286         "description": "This resource describes the time period over which any additionally  
36287 provided\ninformation is derived or bounded.\nThe startTime and stopTime are ISO8601 encoded  
36288 strings. startTime must be present.\nThe interval is the interval of the time period in minutes,  
36289 if present this value must be no less than 1 minute.\nstopTime and interval are mutually exclusive;  
36290 both Properties cannot be present in a Resource instance.\nDefines a time period for information  
36291 retrieval, action or other behaviour.\n",  
36292         "parameters": [  
36293           { "$ref": "#/parameters/interface" }  
36294         ],  
36295         "responses": {  
36296           "200": {  
36297             "description": "",  
36298             "x-example":  
36299               {  
36300                 "rt": ["oic.r.time.period"],  
36301                 "id": "unique_example_id",  
36302                 "startTime": "2015-01-09T14:30Z",  
36303                 "stopTime": "2015-01-09T14:45Z"  
36304               }  
36305             },  
36306             "schema": { "$ref": "#/definitions/TimePeriod" }  
36307           }  
36308         }  
36309       }  
36310     },  
36311     "post": {  
36312       "description": "Sets or updates a time period for information retrieval, action or other  
36313 behavior.\n",  
36314       "parameters": [  

```

```

36315     {"$ref": "#/parameters/interface"},
36316     {
36317         "name": "body",
36318         "in": "body",
36319         "required": true,
36320         "schema": { "$ref": "#/definitions/TimePeriod" },
36321         "x-example":
36322             {
36323                 "id": "unique_example_id",
36324                 "startTime": "2015-01-09T14:30Z",
36325                 "stopTime": "2015-01-09T14:45Z"
36326             }
36327     }
36328 ],
36329 "responses": {
36330     "200": {
36331         "description": "",
36332         "x-example":
36333             {
36334                 "id": "unique_example_id",
36335                 "startTime": "2015-01-09T14:30Z",
36336                 "stopTime": "2015-01-09T14:45Z"
36337             }
36338     },
36339     "schema": { "$ref": "#/definitions/TimePeriod" }
36340 }
36341 }
36342 }
36343 }
36344 },
36345 "parameters": {
36346     "interface": {
36347         "in": "query",
36348         "name": "if",
36349         "type": "string",
36350         "enum": ["oic.if.a", "oic.if.baseline"]
36351     }
36352 },
36353 "definitions": {
36354     "TimePeriod": {
36355         "properties": {
36356             "id": {
36357                 "description": "Instance ID of this specific resource",
36358                 "maxLength": 64,
36359                 "readOnly": true,
36360                 "type": "string"
36361             },
36362             "if": {
36363                 "description": "The interface set supported by this resource",
36364                 "items": {
36365                     "enum": [
36366                         "oic.if.baseline",
36367                         "oic.if.ll",
36368                         "oic.if.b",
36369                         "oic.if.lb",
36370                         "oic.if.rw",
36371                         "oic.if.r",
36372                         "oic.if.a",
36373                         "oic.if.s"
36374                     ],
36375                     "type": "string"
36376                 },
36377                 "minItems": 1,
36378                 "readOnly": true,
36379                 "type": "array"
36380             },
36381             "interval": {
36382                 "description": "Time interval in minutes after the startTime, if present stopTime
36383 cannot be present",
36384                 "type": "integer"
36385             }

```

```

36386     },
36387     "n": {
36388         "description": "Friendly name of the resource",
36389         "maxLength": 64,
36390         "readOnly": true,
36391         "type": "string"
36392     },
36393     "precision": {
36394         "description": "Accuracy granularity of the exposed value",
36395         "readOnly": true,
36396         "type": "number"
36397     },
36398     "range": {
36399         "description": "The valid range for the value Property",
36400         "items": {
36401             "anyOf": [
36402                 {
36403                     "type": "number"
36404                 },
36405                 {
36406                     "type": "integer"
36407                 }
36408             ]
36409         },
36410         "maxItems": 2,
36411         "minItems": 2,
36412         "readOnly": true,
36413         "type": "array"
36414     },
36415     "rt": {
36416         "description": "Resource Type",
36417         "items": {
36418             "maxLength": 64,
36419             "type": "string"
36420         },
36421         "minItems": 1,
36422         "readOnly": true,
36423         "type": "array"
36424     },
36425     "startTime": {
36426         "description": "Start time for the time period",
36427         "type": "string"
36428     },
36429     "step": {
36430         "anyOf": [
36431             {
36432                 "type": "integer"
36433             },
36434             {
36435                 "type": "number"
36436             }
36437         ],
36438         "description": "Step value across the defined range",
36439         "readOnly": true
36440     },
36441     "stopTime": {
36442         "description": "Stop time for the time period, if present interval cannot be present",
36443         "type": "string"
36444     },
36445     "value": {
36446         "anyOf": [
36447             {
36448                 "type": "array"
36449             },
36450             {
36451                 "type": "string"
36452             },
36453             {
36454                 "type": "boolean"
36455             },
36456             {

```

```

36457         "type": "integer"
36458     },
36459     {
36460         "type": "number"
36461     },
36462     {
36463         "type": "object"
36464     }
36465 ],
36466     "description": "The value sensed or actuated by this Resource"
36467 },
36468 },
36469     "required": [
36470         "startTime"
36471     ],
36472     "type": "object"
36473 }
36474 }
36475 }
36476 }
36477 }

```

36478 **B.80.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
startTime	string	yes		Start time for the time period
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
stopTime	string			Stop time for the time period, if present interval cannot be present
id	string		Read Only	Instance ID of this specific resource
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

36479 **B.80.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TimePeriodResURI		get	post		

36480 **B.81 Time Stamp**

36481 **B.81.1 Introduction**

36482 This resource describes the properties associated with a timestamp.
 36483 TimeStamp is a string that captures the timestamp using the RFC3339 datetime format (e.g: 2007-
 36484 04-05T14:30Z) (Time+Date+Timezone)
 36485 Retrieves the current timestamp data.
 36486

36487 **B.81.2 Example URI**

36488 /TimeStampResURI

36489 **B.81.3 Resource Type**

36490 The resource type (rt) is defined as: ['oic.r.time.stamp'].

36491 **B.81.4 Swagger2.0 Definition**

```

36492 {
36493   "swagger": "2.0",
36494   "info": {
36495     "title": "Time Stamp",
36496     "version": "v1.1.0-20170830",
36497     "license": {
36498       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
36499       "x-description": "Redistribution and use in source and binary forms, with or without
36500 modification, are permitted provided that the following conditions are met:\n      1.
36501 Redistributions of source code must retain the above copyright notice, this list of conditions and
36502 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
36503 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
36504 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
36505 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
36506 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
36507 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
36508 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
36509 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
36510 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
36511 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
36512 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
36513 OF SUCH DAMAGE.\n"
36514     }
36515   },
36516   "schemes": ["http"],
36517   "consumes": ["application/json"],
36518   "produces": ["application/json"],
36519   "paths": {
36520     "/TimeStampResURI" : {
36521       "get": {
36522         "description": "This resource describes the properties associated with a
36523 timestamp.\nTimeStamp is a string that captures the timestamp using the RFC3339 datetime format
36524 (e.g: 2007-04-05T14:30Z) (Time+Date+Timezone)\nRetrieves the current timestamp data.\n",
36525         "parameters": [
36526           ],
36527         "responses": {
36528           "200": {
36529             "description": "",
36530             "x-example":
36531             {
36532               "rt": ["oic.r.time.stamp"],
36533               "id": "unique_example_id",
36534               "timestamp": "2015-11-05T14:30Z"
36535             }
36536           }
36537         }
36538       }
36539     }
36540   }
36541 }
  
```

```

36537         "schema": { "$ref": "#/definitions/TimeStamp" }
36538     }
36539 }
36540 }
36541 },
36542 },
36543 "parameters": {
36544     "interface" : {
36545         "in" : "query",
36546         "name" : "if",
36547         "type" : "string",
36548         "enum" : ["oic.if.s", "oic.if.r", "oic.if.baseline"]
36549     }
36550 },
36551 "definitions": {
36552     "TimeStamp" : {
36553         "properties": {
36554             "rt" :
36555                 {
36556                     "description": "Resource Type",
36557                     "items": {
36558                         "maxLength": 64,
36559                         "type": "string"
36560                     },
36561                     "minItems": 1,
36562                     "readOnly": true,
36563                     "type": "array"
36564                 },
36565             "timestamp" :
36566                 {
36567                     "description": "An RFC3339 formatted time indicating when the data was observed (e.g.:
36568 2016-02-15T09:19Z, 1996-12-19T16:39:57-08:00)",
36569                     "format": "date-time",
36570                     "readOnly": true,
36571                     "type": "string"
36572                 },
36573             },
36574             "precision" :
36575                 {
36576                     "description": "Accuracy granularity of the exposed value",
36577                     "readOnly": true,
36578                     "type": "number"
36579                 },
36580             },
36581             "value" :
36582                 {
36583                     "anyOf": [
36584                         {
36585                             "type": "array"
36586                         },
36587                         {
36588                             "type": "string"
36589                         },
36590                         {
36591                             "type": "boolean"
36592                         },
36593                         {
36594                             "type": "integer"
36595                         },
36596                         {
36597                             "type": "number"
36598                         },
36599                         {
36600                             "type": "object"
36601                         }
36602                     ],
36603                     "description": "The value sensed or actuated by this Resource"
36604                 },
36605             },
36606             "n" :
36607

```

```

36608         {
36609             "description": "Friendly name of the resource",
36610             "maxLength": 64,
36611             "readOnly": true,
36612             "type": "string"
36613         },
36614
36615         "range" :
36616         {
36617             "description": "The valid range for the value Property",
36618             "items": {
36619                 "anyOf": [
36620                     {
36621                         "type": "number"
36622                     },
36623                     {
36624                         "type": "integer"
36625                     }
36626                 ]
36627             },
36628             "maxItems": 2,
36629             "minItems": 2,
36630             "readOnly": true,
36631             "type": "array"
36632         },
36633
36634         "step" :
36635         {
36636             "anyOf": [
36637                 {
36638                     "type": "integer"
36639                 },
36640                 {
36641                     "type": "number"
36642                 }
36643             ],
36644             "description": "Step value across the defined range",
36645             "readOnly": true
36646         },
36647
36648         "id" :
36649         {
36650             "description": "Instance ID of this specific resource",
36651             "maxLength": 64,
36652             "readOnly": true,
36653             "type": "string"
36654         },
36655
36656         "if" :
36657         {
36658             "description": "The interface set supported by this resource",
36659             "items": {
36660                 "enum": [
36661                     "oic.if.baseline",
36662                     "oic.if.ll",
36663                     "oic.if.b",
36664                     "oic.if.lb",
36665                     "oic.if.rw",
36666                     "oic.if.r",
36667                     "oic.if.a",
36668                     "oic.if.s"
36669                 ],
36670                 "type": "string"
36671             },
36672             "minItems": 1,
36673             "readOnly": true,
36674             "type": "array"
36675         }
36676     },
36677 },
36678 "required": ["timestamp"]

```

36679 }
 36680 }
 36681 }
 36682 }

36683 **B.81.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
timestamp	string	yes	Read Only	An RFC3339 formatted time indicating when the data was observed (e.g.: 2016-02-15T09:19Z, 1996-12-19T16:39:57-08:00)
rt	array: see schema		Read Only	Resource Type

36684 **B.81.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TimeStampResURI		get			

36685 **B.82 Touch Sensor**

36686 **B.82.1 Introduction**

36687 This resource describes whether touch has been sensed or not.
 36688 The value is a boolean.
 36689 A value of 'true' means that touch has been sensed.
 36690 A value of 'false' means that touch not been sensed.
 36691

36692 **B.82.2 Example URI**

36693 /TouchResURI

36694 **B.82.3 Resource Type**

36695 The resource type (rt) is defined as: ['oic.r.sensor.touch'].

36696 **B.82.4 Swagger2.0 Definition**

```
36697 {
36698   "swagger": "2.0",
36699   "info": {
36700     "title": "Touch Sensor",
36701     "version": "v1.1.0-20160519",
36702     "license": {
36703       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
36704       "x-description": "Redistribution and use in source and binary forms, with or without
36705 modification, are permitted provided that the following conditions are met:\n      1.
36706 Redistributions of source code must retain the above copyright notice, this list of conditions and
36707 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
36708 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
36709 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
36710 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
36711 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
36712 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
36713 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
36714 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
36715 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
36716 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
36717 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
36718 OF SUCH DAMAGE.\n"
36719     }
36720   },
36721   "schemes": ["http"],
36722   "consumes": ["application/json"],
36723   "produces": ["application/json"],
36724   "paths": {
36725     "/TouchResURI" : {
36726       "get": {
36727         "description": "This resource describes whether touch has been sensed or not.\nThe value is
36728 a boolean.\nA value of 'true' means that touch has been sensed.\nA value of 'false' means that
36729 touch not been sensed.\n",
36730         "parameters": [
36731           { "$ref": "#/parameters/interface" }
36732         ],
36733         "responses": {
36734           "200": {
36735             "description": "",
36736             "x-example":
36737               {
36738                 "rt": ["oic.r.sensor.touch"],
36739                 "id": "unique_example_id",
36740                 "value": true
36741               }
36742           },
36743           "schema": { "$ref": "#/definitions/Touch" }
36744         }
36745       }
36746     }
36747   },
36748   "parameters": {
36749     "interface" : {
36750       "in" : "query",
36751       "name" : "if",
36752       "type" : "string",
36753       "enum" : ["oic.if.s", "oic.if.baseline"]
36754     }
36755   },
36756   "definitions": {
36757     "Touch" :
36758       {
36759         "properties": {
36760           "id": {
36761             "description": "Instance ID of this specific resource",

```

```

36763         "maxLength": 64,
36764         "readOnly": true,
36765         "type": "string"
36766     },
36767     "if": {
36768         "description": "The interface set supported by this resource",
36769         "items": {
36770             "enum": [
36771                 "oic.if.baseline",
36772                 "oic.if.ll",
36773                 "oic.if.b",
36774                 "oic.if.lb",
36775                 "oic.if.rw",
36776                 "oic.if.r",
36777                 "oic.if.a",
36778                 "oic.if.s"
36779             ],
36780             "type": "string"
36781         },
36782         "minItems": 1,
36783         "readOnly": true,
36784         "type": "array"
36785     },
36786     "n": {
36787         "description": "Friendly name of the resource",
36788         "maxLength": 64,
36789         "readOnly": true,
36790         "type": "string"
36791     },
36792     "precision": {
36793         "description": "Accuracy granularity of the exposed value",
36794         "readOnly": true,
36795         "type": "number"
36796     },
36797     "range": {
36798         "description": "The valid range for the value Property",
36799         "items": {
36800             "anyOf": [
36801                 {
36802                     "type": "number"
36803                 },
36804                 {
36805                     "type": "integer"
36806                 }
36807             ]
36808         },
36809         "maxItems": 2,
36810         "minItems": 2,
36811         "readOnly": true,
36812         "type": "array"
36813     },
36814     "rt": {
36815         "description": "Resource Type",
36816         "items": {
36817             "maxLength": 64,
36818             "type": "string"
36819         },
36820         "minItems": 1,
36821         "readOnly": true,
36822         "type": "array"
36823     },
36824     "step": {
36825         "anyOf": [
36826             {
36827                 "type": "integer"
36828             },
36829             {
36830                 "type": "number"
36831             }
36832         ],
36833         "description": "Step value across the defined range",

```

```

36834         "readOnly": true
36835     },
36836     "value": {
36837         "description": "true = sensed, false = not sensed.",
36838         "readOnly": true,
36839         "type": "boolean"
36840     }
36841 },
36842 "required": [
36843     "value"
36844 ],
36845 "type": "object"
36846 }
36847 }
36848 }
36849 }
36850 }

```

36851 **B.82.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
value	boolean	yes	Read Only	true = sensed, false = not sensed.

36852 **B.82.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/TouchResURI		get			

36853 **B.83 UV Radiation**

36854 **B.83.1 Introduction**

36855 This resource specifies UV radiation measurement.
36856 The measurement is the current measured UV Index
36857 Retrieves the current UV Radiation value
36858

36859 **B.83.2 Example URI**

36860 /UVRadiationResURI

36861 **B.83.3 Resource Type**

36862 The resource type (rt) is defined as: ['oic.r.sensor.radiation.uv'].

36863 **B.83.4 Swagger2.0 Definition**

```
36864 {
36865   "swagger": "2.0",
36866   "info": {
36867     "title": "UV Radiation",
36868     "version": "v1.1.0-20160519",
36869     "license": {
36870       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
36871       "x-description": "Redistribution and use in source and binary forms, with or without
36872 modification, are permitted provided that the following conditions are met:\n      1.
36873 Redistributions of source code must retain the above copyright notice, this list of conditions and
36874 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
36875 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
36876 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
36877 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
36878 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
36879 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
36880 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
36881 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
36882 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
36883 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
36884 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
36885 OF SUCH DAMAGE.\n"
36886     }
36887   },
36888   "schemes": ["http"],
36889   "consumes": ["application/json"],
36890   "produces": ["application/json"],
36891   "paths": {
36892     "/UVRadiationResURI" : {
36893       "get": {
36894         "description": "This resource specifies UV radiation measurement.\nThe measurement is the
36895 current measured UV Index\nRetrieves the current UV Radiation value\n",
36896         "parameters": [
36897           { "$ref": "#/parameters/interface" }
36898         ],
36899         "responses": {
36900           "200": {
36901             "description": "",
36902             "x-example":
36903               {
36904                 "rt": ["oic.r.sensor.radiation.uv"],
36905                 "id": "unique_example_id",
36906                 "measurement": 3.5
36907               }
36908           },
36909           "schema": { "$ref": "#/definitions/UVRadiation" }
36910         }
36911       }
36912     }
36913   },
36914   "parameters": {
36915     "interface" : {
36916       "in" : "query",
36917       "name" : "if",
36918       "type" : "string",
36919       "enum" : ["oic.if.s", "oic.if.baseline"]
36920     }
36921   },
36922   "definitions": {
36923     "UVRadiation" :
36924       {
36925         "properties": {
36926           "id": {
36927             "description": "Instance ID of this specific resource",
36928             "maxLength": 64,
36929
```



```

36930         "readOnly": true,
36931         "type": "string"
36932     },
36933     "if": {
36934         "description": "The interface set supported by this resource",
36935         "items": {
36936             "enum": [
36937                 "oic.if.baseline",
36938                 "oic.if.ll",
36939                 "oic.if.b",
36940                 "oic.if.lb",
36941                 "oic.if.rw",
36942                 "oic.if.r",
36943                 "oic.if.a",
36944                 "oic.if.s"
36945             ],
36946             "type": "string"
36947         },
36948         "minItems": 1,
36949         "readOnly": true,
36950         "type": "array"
36951     },
36952     "measurement": {
36953         "description": "The measured UV Index",
36954         "readOnly": true,
36955         "type": "number"
36956     },
36957     "n": {
36958         "description": "Friendly name of the resource",
36959         "maxLength": 64,
36960         "readOnly": true,
36961         "type": "string"
36962     },
36963     "precision": {
36964         "description": "Accuracy granularity of the exposed value",
36965         "readOnly": true,
36966         "type": "number"
36967     },
36968     "range": {
36969         "description": "The valid range for the value Property",
36970         "items": {
36971             "anyOf": [
36972                 {
36973                     "type": "number"
36974                 },
36975                 {
36976                     "type": "integer"
36977                 }
36978             ]
36979         },
36980         "maxItems": 2,
36981         "minItems": 2,
36982         "readOnly": true,
36983         "type": "array"
36984     },
36985     "rt": {
36986         "description": "Resource Type",
36987         "items": {
36988             "maxLength": 64,
36989             "type": "string"
36990         },
36991         "minItems": 1,
36992         "readOnly": true,
36993         "type": "array"
36994     },
36995     "step": {
36996         "anyOf": [
36997             {
36998                 "type": "integer"
36999             },
37000             {

```

```

37001         "type": "number"
37002     }
37003 ],
37004     "description": "Step value across the defined range",
37005     "readOnly": true
37006 },
37007     "value": {
37008         "anyOf": [
37009             {
37010                 "type": "array"
37011             },
37012             {
37013                 "type": "string"
37014             },
37015             {
37016                 "type": "boolean"
37017             },
37018             {
37019                 "type": "integer"
37020             },
37021             {
37022                 "type": "number"
37023             },
37024             {
37025                 "type": "object"
37026             }
37027         ],
37028         "description": "The value sensed or actuated by this Resource"
37029     }
37030 },
37031     "required": [
37032         "measurement"
37033     ],
37034     "type": "object"
37035 }
37036 }
37037 }
37038 }
37039 }

```

37040 **B.83.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
measurement	number	yes	Read Only	The measured UV Index

value	multiple types: see schema			The value sensed or actuated by this Resource
-------	-------------------------------	--	--	---

37041 **B.83.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/UVRadiationResURI		get			

37042 **B.84 Value Conditional**

37043 **B.84.1 Introduction**

37044 This resource specifies conditions that can be applied to an observed value in any Resource.
37045 These conditions are applied by the server exposing the Resource to any generated notifications
37046 because of subscriptions to the Resource.
37047 A unicast RETRIEVE to the Resource will receive the most recent value; which may not be the
37048 most recent notified value.
37049 A server exposes this Resource in association with the Resource conveying the observed value.
37050 This is done by means of a new Resource instance with an RT of ["oic.r.<thing being observed>",
37051 "oic.r.value.conditional"], e.g ["oic.r.temperature", "oic.r.value.conditional"]. Please see Section
37052 5.7.1 of the published OCF Resource Type Specification for more details.
37053 The threshold is the amount by which the thing being observed must change before a notification
37054 is sent.
37055 The minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a notification
37056 is sent.
37057 If the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be sent.
37058 The maxnotifyperiod timer resets each time a notification is sent.
37059 A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod means that the capability is
37060 supported but not active.
37061

37062 **B.84.2 Example URI**

37063 /ValueConditionalResURI

37064 **B.84.3 Resource Type**

37065 The resource type (rt) is defined as: ['oic.r.value.conditional'].

37066 **B.84.4 Swagger2.0 Definition**

```

37067 {
37068   "swagger": "2.0",
37069   "info": {
37070     "title": "Value Conditional",
37071     "version": "v1.1.0-20161031",
37072     "license": {
37073       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
37074       "x-description": "Redistribution and use in source and binary forms, with or without
37075 modification, are permitted provided that the following conditions are met:\n      1.
37076 Redistributions of source code must retain the above copyright notice, this list of conditions and
37077 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
37078 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
37079 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
37080 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
37081 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
37082 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
37083 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
37084 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
37085 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
37086 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
37087 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
37088 OF SUCH DAMAGE.\n"
37089   }

```

```

37090     },
37091     "schemes": ["http"],
37092     "consumes": ["application/json"],
37093     "produces": ["application/json"],
37094     "paths": {
37095         "/ValueConditionalResURI" : {
37096             "get": {
37097                 "description": "This resource specifies conditions that can be applied to an observed value
37098 in any Resource.\nThese conditions are applied by the server exposing the Resource to any generated
37099 notifications because of subscriptions to the Resource.\nA unicast RETRIEVE to the Resource will
37100 receive the most recent value; which may not be the most recent notified value.\nA server exposes
37101 this Resource in association with the Resource conveying the observed value.\nThis is done by means
37102 of a new Resource instance with an RT of [\"oic.r.<thing being observed>\",
37103 \"oic.r.value.conditional\"], e.g [\"oic.r.temperature\", \"oic.r.value.conditional\"]. Please see
37104 Section 5.7.1 of the published OCF Resource Type Specification for more details.\nThe threshold is
37105 the amount by which the thing being observed must change before a notification is sent.\nThe
37106 minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a notification is
37107 sent.\nIf the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be
37108 sent.\nThe maxnotifyperiod timer resets each time a notification is sent.\nA value of '0' for any
37109 of threshold, minnotifyperiod or maxnotifyperiod means that the capability is supported but not
37110 active.\n",
37111         "parameters": [
37112             { "$ref": "#/parameters/interface" }
37113         ],
37114         "responses": {
37115             "200": {
37116                 "description": "",
37117                 "x-example":
37118                     {
37119                         "rt": ["oic.r.value.conditional"],
37120                         "id": "unique_example_id",
37121                         "threshold": 2,
37122                         "minnotifyperiod": 2000,
37123                         "maxnotifyperiod": 5000
37124                     }
37125             },
37126             "schema": { "$ref": "#/definitions/valueconditional" }
37127         }
37128     },
37129     },
37130     "post": {
37131         "description": "body:\n application/json:\n schema: valueconditional\n example: |\n
37132 {\n  \"threshold\": 2,\n  \"minnotifyperiod\": 1500\n }\n",
37133         "parameters": [
37134             { "$ref": "#/parameters/interface" }
37135         ],
37136         "responses": {
37137             "200": {
37138                 "description": "",
37139                 "x-example":
37140                     {
37141                         "threshold": 2,
37142                         "minnotifyperiod": 1500
37143                     }
37144             },
37145             "schema": { "$ref": "#/definitions/valueconditional" }
37146         }
37147     }
37148     },
37149     },
37150     },
37151     "parameters": {
37152         "interface" : {
37153             "in" : "query",
37154             "name" : "if",
37155             "type" : "string",
37156             "enum" : ["oic.if.rw", "oic.if.baseline"]
37157         }
37158     },
37159     "definitions": {
37160         "valueconditional" :

```

```

37161     {
37162     "anyOf": [
37163     {
37164         "required": [
37165             "threshold"
37166         ]
37167     },
37168     {
37169         "required": [
37170             "minnotifyperiod"
37171         ]
37172     },
37173     {
37174         "required": [
37175             "maxnotifyperiod"
37176         ]
37177     }
37178     ],
37179     "properties": {
37180         "maxnotifyperiod": {
37181             "description": "Maximum elapsed time in ms before a notification must be sent.",
37182             "minimum": 0,
37183             "type": "integer"
37184         },
37185         "minnotifyperiod": {
37186             "description": "Minimum elapsed time in ms before a notification is sent.",
37187             "minimum": 0,
37188             "type": "integer"
37189         },
37190         "threshold": {
37191             "description": "Amount by which the measured value must change before a notification is
37192 sent.",
37193             "minimum": 0,
37194             "type": "number"
37195         }
37196     },
37197     "type": "object"
37198 }
37199 }
37200 }
37201 }
37202

```

37203 **B.84.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
maxnotifyperiod	integer	yes		Maximum elapsed time in ms before a notification must be sent.
threshold	number			Amount by which the measured value must change before a notification is sent.
minnotifyperiod	integer			Minimum elapsed time in ms before a notification is sent.

37204 **B.84.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ValueConditionalResURI		get	post		

37205 **B.85 Vehicle Connector**

37206 **B.85.1 Introduction**

37207 This resource describes the attributes associated with an electric vehicle charging connector. The
37208 connected state is a boolean indicating the status of the connector (False = disconnected, True =
37209 connected). The rated charging capacity and rated discharging capacity are in Amps (A).
37210 Retrieves the state of the vehicle connector.
37211

37212 **B.85.2 Example URI**

37213 /VehicleConnectorResURI

37214 **B.85.3 Resource Type**

37215 The resource type (rt) is defined as: ['oic.r.vehicle.connector'].

37216 **B.85.4 Swagger2.0 Definition**

```
37217 {  
37218   "swagger": "2.0",  
37219   "info": {  
37220     "title": "Vehicle Connector",  
37221     "version": "v1.1.0-20170815",  
37222     "license": {  
37223       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
37224       "x-description": "Redistribution and use in source and binary forms, with or without  
37225 modification, are permitted provided that the following conditions are met:\n      1.  
37226 Redistributions of source code must retain the above copyright notice, this list of conditions and  
37227 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
37228 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
37229 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
37230 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
37231 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
37232 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
37233 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
37234 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
37235 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
37236 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
37237 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
37238 OF SUCH DAMAGE.\n\n    }  
37239   },  
37240   "schemes": ["http"],  
37241   "consumes": ["application/json"],  
37242   "produces": ["application/json"],  
37243   "paths": {  
37244     "/VehicleConnectorResURI" : {  
37245       "get": {  
37246         "description": "This resource describes the attributes associated with an electric vehicle  
37247 charging connector. The connected state is a boolean indicating the status of the connector (False  
37248 = disconnected, True = connected). The rated charging capacity and rated discharging capacity are  
37249 in Amps (A).\nRetrieves the state of the vehicle connector.\n",  
37250         "parameters": [  
37251           { "$ref": "#/parameters/interface" }  
37252         ],  
37253         "responses": {  
37254           "200": {  
37255             "description": "",  
37256             "x-example":  
37257               {  
37258                 "rt": ["oic.r.vehicle.connector"],  
37259                 "id": "unique_example_id",  
37260                 "connected": true,  
37261                 "ratedchargingcapacity": 20.0,  
37262                 "rateddischargingcapacity": 5.0  
37263               }  
37264             },  
37265           },  
37266           "schema": { "$ref": "#/definitions/VehicleConnector" }  
37267         }  
37268       }  
37269     }  
37270   }  
37271 }
```

```

37268     }
37269     }
37270   }
37271 },
37272 "parameters": {
37273   "interface": {
37274     "in": "query",
37275     "name": "if",
37276     "type": "string",
37277     "enum": ["oic.if.s", "oic.if.baseline"]
37278   }
37279 },
37280 "definitions": {
37281   "VehicleConnector":
37282     {
37283     "properties": {
37284       "connected": {
37285         "description": "The connection state.",
37286         "readOnly": true,
37287         "type": "boolean"
37288       },
37289       "id": {
37290         "description": "Instance ID of this specific resource",
37291         "maxLength": 64,
37292         "readOnly": true,
37293         "type": "string"
37294       },
37295       "if": {
37296         "description": "The interface set supported by this resource",
37297         "items": {
37298           "enum": [
37299             "oic.if.baseline",
37300             "oic.if.ll",
37301             "oic.if.b",
37302             "oic.if.lb",
37303             "oic.if.rw",
37304             "oic.if.r",
37305             "oic.if.a",
37306             "oic.if.s"
37307           ],
37308           "type": "string"
37309         },
37310         "minItems": 1,
37311         "readOnly": true,
37312         "type": "array"
37313       },
37314       "n": {
37315         "description": "Friendly name of the resource",
37316         "maxLength": 64,
37317         "readOnly": true,
37318         "type": "string"
37319       },
37320       "precision": {
37321         "description": "Accuracy granularity of the exposed value",
37322         "readOnly": true,
37323         "type": "number"
37324       },
37325       "range": {
37326         "description": "The valid range for the value Property",
37327         "items": {
37328           "anyOf": [
37329             {
37330               "type": "number"
37331             },
37332             {
37333               "type": "integer"
37334             }
37335           ]
37336         },
37337         "maxItems": 2,
37338         "minItems": 2,

```

```

37339         "readOnly": true,
37340         "type": "array"
37341     },
37342     "ratedchargingcapacity": {
37343         "description": "The rated charging capacity in Amps (A).",
37344         "readOnly": true,
37345         "type": "number"
37346     },
37347     "rateddischargingcapacity": {
37348         "description": "The rated discharging capacity in Amps (A).",
37349         "readOnly": true,
37350         "type": "number"
37351     },
37352     "rt": {
37353         "description": "Resource Type",
37354         "items": {
37355             "maxLength": 64,
37356             "type": "string"
37357         },
37358         "minItems": 1,
37359         "readOnly": true,
37360         "type": "array"
37361     },
37362     "step": {
37363         "anyOf": [
37364             {
37365                 "type": "integer"
37366             },
37367             {
37368                 "type": "number"
37369             }
37370         ],
37371         "description": "Step value across the defined range",
37372         "readOnly": true
37373     },
37374     "value": {
37375         "anyOf": [
37376             {
37377                 "type": "array"
37378             },
37379             {
37380                 "type": "string"
37381             },
37382             {
37383                 "type": "boolean"
37384             },
37385             {
37386                 "type": "integer"
37387             },
37388             {
37389                 "type": "number"
37390             },
37391             {
37392                 "type": "object"
37393             }
37394         ],
37395         "description": "The value sensed or actuated by this Resource"
37396     }
37397 },
37398 "required": [
37399     "connected"
37400 ],
37401 "type": "object"
37402 }
37403 }
37404 }
37405 }
37406

```


37407

B.85.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
rateddischargingcapacity	number		Read Only	The rated discharging capacity in Amps (A).
rt	array: see schema		Read Only	Resource Type
connected	boolean	yes	Read Only	The connection state.
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
ratedchargingcapacity	number		Read Only	The rated charging capacity in Amps (A).
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property

37408

B.85.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/VehicleConnectorResURI		get			

37409

B.86 Water Sensor

37410

B.86.1 Introduction

37411 This resource describes whether water has been sensed or not.

37412 The value is a boolean.

37413 A value of 'true' means that water has been sensed.

37414 A value of 'false' means that water not been sensed.

37415

37416

B.86.2 Example URI

37417

/WaterResURI

37418

B.86.3 Resource Type

37419

The resource type (rt) is defined as: ['oic.r.sensor.water'].

37420 **B.86.4 Swagger2.0 Definition**

```
37421 {
37422   "swagger": "2.0",
37423   "info": {
37424     "title": "Water Sensor",
37425     "version": "v1.1.0-20160519",
37426     "license": {
37427       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
37428       "x-description": "Redistribution and use in source and binary forms, with or without
37429 modification, are permitted provided that the following conditions are met:\n      1.
37430 Redistributions of source code must retain the above copyright notice, this list of conditions and
37431 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
37432 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
37433 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
37434 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
37435 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
37436 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
37437 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
37438 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
37439 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
37440 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
37441 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
37442 OF SUCH DAMAGE.\n"
37443   }
37444 },
37445 "schemes": ["http"],
37446 "consumes": ["application/json"],
37447 "produces": ["application/json"],
37448 "paths": {
37449   "/WaterResURI" : {
37450     "get": {
37451       "description": "This resource describes whether water has been sensed or not.\nThe value is
37452 a boolean.\nA value of 'true' means that water has been sensed.\nA value of 'false' means that
37453 water not been sensed.\n",
37454       "parameters": [
37455         {"$ref": "#/parameters/interface"}
37456       ],
37457       "responses": {
37458         "200": {
37459           "description": "",
37460           "x-example":
37461             {
37462               "rt": ["oic.r.sensor.water"],
37463               "id": "unique_example_id",
37464               "value": true
37465             }
37466         },
37467         "schema": { "$ref": "#/definitions/Water" }
37468       }
37469     }
37470   }
37471 },
37472 },
37473 "parameters": {
37474   "interface" : {
37475     "in" : "query",
37476     "name" : "if",
37477     "type" : "string",
37478     "enum" : ["oic.if.s", "oic.if.baseline"]
37479   }
37480 },
37481 "definitions": {
37482   "Water" :
37483     {
37484       "properties": {
37485         "id": {
37486           "description": "Instance ID of this specific resource",
37487           "maxLength": 64,
37488           "readOnly": true,
37489           "type": "string"
37490         }
37491       }
37492     }
37493 }
```

```

37490 },
37491 "if": {
37492   "description": "The interface set supported by this resource",
37493   "items": {
37494     "enum": [
37495       "oic.if.baseline",
37496       "oic.if.ll",
37497       "oic.if.b",
37498       "oic.if.lb",
37499       "oic.if.rw",
37500       "oic.if.r",
37501       "oic.if.a",
37502       "oic.if.s"
37503     ],
37504     "type": "string"
37505   },
37506   "minItems": 1,
37507   "readOnly": true,
37508   "type": "array"
37509 },
37510 "n": {
37511   "description": "Friendly name of the resource",
37512   "maxLength": 64,
37513   "readOnly": true,
37514   "type": "string"
37515 },
37516 "precision": {
37517   "description": "Accuracy granularity of the exposed value",
37518   "readOnly": true,
37519   "type": "number"
37520 },
37521 "range": {
37522   "description": "The valid range for the value Property",
37523   "items": {
37524     "anyOf": [
37525       {
37526         "type": "number"
37527       },
37528       {
37529         "type": "integer"
37530       }
37531     ]
37532   },
37533   "maxItems": 2,
37534   "minItems": 2,
37535   "readOnly": true,
37536   "type": "array"
37537 },
37538 "rt": {
37539   "description": "Resource Type",
37540   "items": {
37541     "maxLength": 64,
37542     "type": "string"
37543   },
37544   "minItems": 1,
37545   "readOnly": true,
37546   "type": "array"
37547 },
37548 "step": {
37549   "anyOf": [
37550     {
37551       "type": "integer"
37552     },
37553     {
37554       "type": "number"
37555     }
37556   ],
37557   "description": "Step value across the defined range",
37558   "readOnly": true
37559 },
37560 "value": {

```

```

37561         "description": "true = sensed, false = not sensed.",
37562         "readOnly": true,
37563         "type": "boolean"
37564     }
37565 },
37566 "required": [
37567     "value"
37568 ],
37569 "type": "object"
37570 }
37571 }
37572 }
37573 }
37574 }

```

37575 **B.86.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.

37576 **B.86.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/WaterResURI		get			

37577 **B.87 Weight**

37578 **B.87.1 Introduction**

37579 This resource describes the properties associated with weight of an object.
37580 Weight (weight) is weight of an object.
37581 Retrieves weight of an object.
37582

37583 **B.87.2 Example URI**

37584 /WeightResURI

37585 **B.87.3 Resource Type**

37586 The resource type (rt) is defined as: ['oic.r.weight'].

37587 **B.87.4 Swagger2.0 Definition**

```
37588 {
37589   "swagger": "2.0",
37590   "info": {
37591     "title": "Weight",
37592     "version": "v1.1.0-20160519",
37593     "license": {
37594       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
37595       "x-description": "Redistribution and use in source and binary forms, with or without
37596 modification, are permitted provided that the following conditions are met:\n      1.
37597 Redistributions of source code must retain the above copyright notice, this list of conditions and
37598 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
37599 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
37600 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
37601 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
37602 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
37603 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
37604 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
37605 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
37606 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
37607 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
37608 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
37609 OF SUCH DAMAGE.\n"
37610   }
37611 },
37612 "schemes": ["http"],
37613 "consumes": ["application/json"],
37614 "produces": ["application/json"],
37615 "paths": {
37616   "/WeightResURI" : {
37617     "get": {
37618       "description": "This resource describes the properties associated with weight of an
37619 object.\nWeight (weight) is weight of an object.\nRetrieves weight of an object.\n",
37620       "parameters": [
37621         { "$ref": "#/parameters/interface" }
37622       ],
37623       "responses": {
37624         "200": {
37625           "description": "",
37626           "x-example":
37627             {
37628               "rt": ["oic.r.weight"],
37629               "id": "unique_example_id",
37630               "weight": 200.0
37631             }
37632         },
37633         "schema": { "$ref": "#/definitions/Weight" }
37634       }
37635     }
37636   }
37637 },
37638 },
37639 "parameters": {
37640   "interface" : {
37641     "in" : "query",
37642     "name" : "if",
37643     "type" : "string",
37644     "enum" : ["oic.if.s", "oic.if.baseline"]
37645   }
37646 },
37647 "definitions": {
37648   "Weight" :
37649     {
37650     "properties": {
37651       "id": {
37652         "description": "Instance ID of this specific resource",
37653         "maxLength": 64,
37654         "readOnly": true,
37655         "type": "string"
37656       }
37657     }
37658   }
37659 }
```

```

37657 "if": {
37658   "description": "The interface set supported by this resource",
37659   "items": {
37660     "enum": [
37661       "oic.if.baseline",
37662       "oic.if.ll",
37663       "oic.if.b",
37664       "oic.if.lb",
37665       "oic.if.rw",
37666       "oic.if.r",
37667       "oic.if.a",
37668       "oic.if.s"
37669     ],
37670     "type": "string"
37671   },
37672   "minItems": 1,
37673   "readOnly": true,
37674   "type": "array"
37675 },
37676 "n": {
37677   "description": "Friendly name of the resource",
37678   "maxLength": 64,
37679   "readOnly": true,
37680   "type": "string"
37681 },
37682 "precision": {
37683   "description": "Accuracy granularity of the exposed value",
37684   "readOnly": true,
37685   "type": "number"
37686 },
37687 "range": {
37688   "description": "The valid range for the value Property",
37689   "items": {
37690     "anyOf": [
37691       {
37692         "type": "number"
37693       },
37694       {
37695         "type": "integer"
37696       }
37697     ]
37698   },
37699   "maxItems": 2,
37700   "minItems": 2,
37701   "readOnly": true,
37702   "type": "array"
37703 },
37704 "rt": {
37705   "description": "Resource Type",
37706   "items": {
37707     "maxLength": 64,
37708     "type": "string"
37709   },
37710   "minItems": 1,
37711   "readOnly": true,
37712   "type": "array"
37713 },
37714 "step": {
37715   "anyOf": [
37716     {
37717       "type": "integer"
37718     },
37719     {
37720       "type": "number"
37721     }
37722   ],
37723   "description": "Step value across the defined range",
37724   "readOnly": true
37725 },
37726 "value": {
37727   "anyOf": [

```

```

37728     {
37729         "type": "array"
37730     },
37731     {
37732         "type": "string"
37733     },
37734     {
37735         "type": "boolean"
37736     },
37737     {
37738         "type": "integer"
37739     },
37740     {
37741         "type": "number"
37742     },
37743     {
37744         "type": "object"
37745     }
37746 ],
37747 "description": "The value sensed or actuated by this Resource"
37748 },
37749 "weight": {
37750     "description": "Weight of an object",
37751     "minimum": 0,
37752     "readOnly": true,
37753     "type": "number"
37754 }
37755 },
37756 "required": [
37757     "weight"
37758 ],
37759 "type": "object"
37760 }
37761 }
37762 }
37763 }
37764

```

37765 **B.87.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource

weight	number	yes	Read Only	Weight of an object
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37766 **B.87.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/WeightResURI		get			

37767

37768

37769

37770