Object Transfer Service (OTS)

***Bluetooth*® Implementation Conformance Statement (ICS) Proforma**

- ▪ **Revision:** OTS.ICS.p1
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- ▪ **Group Prepared By**: Sports & Fitness WG

Contents

1 Identification of the implementation

1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

1.2   Roles and versions

Table 0: Versions

Item	Version	Reference	Status
1	OTS 1.0	[2]	M

Table 1: No longer used

1.3   Transport requirements

Table 2: Transport Requirements

Item	Transport	Reference	Status
1	Service supported over LE	[2] 1.5, 1.6	C.1
2	Service supported over BR/EDR	[2] 1.5, 1.6	C.1

C.1:   Mandatory to support at least one of OTS 2/1 "Service supported over LE" OR OTS 2/2 "Service supported over BR/EDR".

1.4   Service requirements

Table 3: Global Feature Requirements

Item	Feature	Reference	Status
1	Multiple Simultaneous Clients (Concurrency feature)	[2] 1.12	O
2	Storage of multiple objects	[2] 3	O
3	Support for zero objects (Note 1)	[2] 3.3.2.8	O

Note 1:   "Support for zero objects" means that the IUT is capable of being placed in a state in which there is no object present on the Server. This could be either the initial state or a state that is achieved by deleting all the objects that are present.

Table 4: GATT Database Requirements

Item	Characteristic or Property	Reference	Status
1	OTS Feature Characteristic	[2] 3.1	M
2	Object Name Characteristic	[2] 3.2.2	M
3	Object Name Characteristic - Write	[2] 3.2.2	C.1
4	Object Name Characteristic – Read Long (longer than default ATT_MTU-1 octets)	[2] 1.4, 3.2.2	C.2
5	Object Name Characteristic – Write Long (longer than default ATT_MTU-3 octets)	[2] 1.4, 3.2.2	O
6	Object Type Characteristic	[2] 3.2.3	M
7	Object Size Characteristic	[2] 3.2.4	M
8	Object First-Created Characteristic	[2] 3.2.5	O
9	Object First-Created Characteristic - Write	[2] 3.2.5	C.3
10	Object Last-Modified Characteristic	[2] 3.2.6	O

Item	Characteristic or Property	Reference	Status
11	Object Last-Modified Characteristic - Write	[2] 3.2.6	C.4
11a	Access to a Real Time Clock (RTC)	[2] 3.2.6.1	O
12	Object ID Characteristic	[2] 3.2.7	C.5
13	Object Properties Characteristic	[2] 3.2.8	M
14	Object Properties Characteristic - Write	[2] 3.2.8	O
15	Object Action Control Point (OACP)	[2] 3.3	M
16	Object List Control Point (OLCP)	[2] 3.4	C.5
17	Object List Filter Characteristic	[2] 3.5	C.6
18	Object List Filter Characteristic – Read Long (longer than default ATT_MTU-1 octets)	[2] 1.4, 3.5	C.7
19	Object List Filter Characteristic – Write Long (longer than default ATT_MTU-3 octets)	[2] 1.4, 3.5	O
20	Object Changed Characteristic	[2] 3.6	O

C.1: Mandatory IF OTS 5/1 "OACP Create Procedure", otherwise Optional.

C.2: Mandatory IF OTS 4/5 "Object Name Characteristic – Write Long (longer than default ATT_MTU-3 octets)", otherwise Optional.

C.3: Mandatory IF OTS 4/8 "Object First-Created Characteristic" AND OTS 5/1 "OACP Create Procedure", otherwise Optional.

C.4: Mandatory IF OTS 4/10 "Object Last-Modified Characteristic" AND NOT OTS 4/11a "Access to a Real Time Clock (RTC)", otherwise Excluded.

C.5: Mandatory IF OTS 3/2 "Storage of multiple objects", otherwise Optional.

C.6: Optional IF OTS 3/2 "Storage of multiple objects", otherwise Excluded.

C.7: Mandatory IF OTS 4/19 "Object List Filter Characteristic – Write Long (longer than default ATT_MTU-3 octets)", otherwise Optional.

Table 5: OACP Features

Prerequisite: OTS 4/15 "Object Action Control Point (OACP)"

Item	Feature	Reference	Status
1	OACP Create Procedure	[2] 3.3.2.1	O
2	OACP Delete Procedure	[2] 3.3.2.2	O
3	OACP Calculate Checksum Procedure	[2] 3.3.2.3	O
4	OACP Execute Procedure	[2] 3.3.2.4	O
5	OACP Read Procedure	[2] 3.3.2.5	O
6	OACP Write Procedure	[2] 3.3.2.6	O
7	Appending Additional Data (increasing the object's Allocated Size)	[2] 3.3.2.6	O
8	Truncation of Objects (decreasing the object's Current Size)	[2] 3.3.2.6	O
9	Patching of Objects (over-writing a portion of the object's contents)	[2] 3.3.2.6	O
10	OACP Abort Procedure	[2] 3.3.2.7	C.1

C.1: Optional IF OTS 5/5 "OACP Read Procedure", otherwise Excluded.

Table 6: OLCP Features

Prerequisite: OTS 4/16 "Object List Control Point (OLCP)"

Item	Feature	Reference	Status
1	OLCP First Procedure	[2] 3.4.2.1	M
2	OLCP Last Procedure	[2] 3.4.2.2	M
3	OLCP Previous Procedure	[2] 3.4.2.3	M
4	OLCP Next Procedure	[2] 3.4.2.4	M
5	OLCP Go To Procedure	[2] 3.4.2.5	O
6	OLCP Order Procedure	[2] 3.4.2.6	O
7	OLCP Request Number of Objects Procedure	[2] 3.4.2.7	O
8	OLCP Clear Marking Procedure	[2] 3.4.2.8	O

Table 7: Directory Listing Object

Prerequisite: OTS 3/2 "Storage of multiple objects"

Item	Capability	Reference	Status
1	Generation of Directory Listing Object	[2] 4.1	O

1.5   GATT requirements

Table 8: GATT Requirements

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Generic Attribute Profile (GATT) Server	[2] 1.4	M	[3] GATT 1/2
2	Read Long Characteristic Values	[2] 1.4	C.1	[3] GATT 4/10
3	Write Characteristic Value	[2] 1.4	M	[3] GATT 4/14
6	Write Long Characteristic Values	[2] 1.4	C.2	[3] GATT 4/15
4	Indications	[2] 1.4	M	[3] GATT 4/18
7	Read Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/19
8	Write Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/21

C.1:   Mandatory IF OTS 4/4 "Object Name Characteristic – Read Long (longer than default ATT_MTU-1 octets)" OR OTS 4/18 "Object List Filter Characteristic – Read Long (longer than default ATT_MTU-1 octets)", otherwise not defined.

C.2:   Mandatory IF OTS 4/5 "Object Name Characteristic – Write Long (longer than default ATT_MTU-3 octets)" OR OTS 4/19 "Object List Filter Characteristic – Write Long (longer than default ATT_MTU-3 octets)", otherwise not defined.

2 References

[1]   Bluetooth Core Specification Version 4.0 or later version of the Core Specification

[2]   Object Transfer Service, Version 1.0

[3]   ICS Proforma for Generic Attribute Profile (GATT)

3   Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2015-11-17	Spec adopted by BoD. Prepared for publication.
	1.0.0 edition 2r00	2018-11-26	Editorial changes only. Template updated. Revision History and contributors moved to the end of the document.
	1.0.0 edition 2	2020-01-08	Updated copyright page and confidentiality markings to support new Documentation Marking Requirements, performed minor formatting updates, and accepted all tracked changes to prepare for edition 2 publication.
	p1r00–r02	2022-03-23 – 2022-05-02	TSE 18598 (rating 3): Deleted Core versions table. Added 4/11a, with a corresponding update to C.4. TSE 18723 (rating 1): Editorials to align the document with the latest ICS template in anticipation of a future .Z release. Assigned publication number 0 to previous v1.0.0 and aligned copyright page with v2 of the DNMD. Consistency checker update.
1	p1	2022-06-28	Approved by BTI on 2022-05-31. Prepared for TCRL 2022-1 publication.

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