

Object Push Profile (OPP)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

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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 Version

1.2.1 Client Profile Version

Table 1b: Client X.Y Versions

Prerequisite: OPP 1/1 “Object Push Client”

| Item | Version | Reference | Status |
|------|----------|-----------|----------|
| 1 | OPP v1.1 | OPP v1.1 | C.1 |
| 2 | OPP v1.2 | OPP v1.2 | C.1, C.2 |

C.1: Mandatory to support one and only one.

C.2: Can only be supported with an active X.Y.Z version after Deprecation. Deprecated 2021-02-01. Withdrawn 2024-02-01.

Table 1c: Client X.Y.Z Versions

Prerequisite: OPP 1/1 “Object Push Client”

| Item | Version | Reference | Status |
|------|------------|------------|--------|
| 1 | OPP v1.2.1 | OPP v1.2.1 | C.1 |

C.1: Mandatory IF OPP 1b/2 “OPP v1.2”, otherwise Excluded.

1.2.2 Server Profile Version

Table 2b: Server X.Y Versions

Prerequisite: OPP 1/2 “Object Push Server”

| Item | Version | Reference | Status |
|------|----------|-----------|----------|
| 1 | OPP v1.1 | OPP v1.1 | C.1 |
| 2 | OPP v1.2 | OPP v1.2 | C.1, C.2 |

C.1: Mandatory to support one and only one.

C.2: Can only be supported with an active X.Y.Z version after Deprecation. Deprecated 2021-02-01. Withdrawn 2024-02-01.

Table 2c: Server X.Y.Z Versions

Prerequisite: OPP 1/2 “Object Push Server”

| Item | Version | Reference | Status |
|------|------------|------------|--------|
| 1 | OPP v1.2.1 | OPP v1.2.1 | C.1 |

C.1: Mandatory IF OPP 2b/2 “OPP v1.2”, otherwise Excluded.

1.3 Roles

Table 1: Role Requirements

| Item | Role | Reference | Status |
|------|--------------------|-----------|--------|
| 1 | Object Push Client | [1] 2.2 | C.1 |
| 2 | Object Push Server | [1] 2.2 | C.1 |

C.1: Mandatory to support at least one.

1.4 Object Push Client Role

1.4.1 Client Application Features

Table 2: Client Application Features

Prerequisite: OPP 1/1 “Object Push Client”

| Item | Capability | Reference | Status |
|--------------------------|--|--------------------|--------|
| Service Discovery | | | |
| 1 | Perform SD Request | [1] 3.2, 6.1 | M |
| Authentication | | | |
| 2 | Authentication/PIN exchange supported | [1] 2.4 [2] 2.3 | M |
| 2a | Require Authentication/PIN by default | [1] 2.4 [2] 2.3 | O |
| Object Push | | | |
| 3 | Object Push | [1] 4.2 | M |
| Content Format | | | |
| 4 | vCard 2.1 | [1] 4.2.1 | C.3 |
| 5 | vCalendar 1.0 | [1] 4.2.1 | O |
| 6 | vMSG as defined in IrMC 1.1 | [1] 4.2.1 | O |
| 7 | vNote as defined in IrMC 1.1 | [1] 4.2.1 | O |
| 8 | Support content formats other than those declared in OPP 2/4 through OPP 2/7 | [1] 4.2.1 | O |
| 8a | Support specific set of other content formats (please specify below) | [1] 4.2.1 | C.4 |
| 8b | Support all content formats | [1] 4.2.1 | C.4 |
| 9 | Push multiple vCard objects | [1] 4.2 | O |
| 9a | Push multiple vCard objects using different PUT operations. | [1] 4.2 | C.5 |
| 9b | Multiple vCard objects using the same PUT operation. | [1] 4.2 | C.5 |
| 10 | Push multiple vCalendar objects | [1] 4.2 | O |
| 10a | Push multiple vCalendar objects using different PUT operations. | [1] 4.2 | C.6 |
| 10b | Push multiple vCalendar objects using the same PUT operation. | [1] 4.2 | C.6 |
| 11 | Push multiple vMsg objects | [1] 4.2 | O |

| Item | Capability | Reference | Status |
|-------------------------------|--|------------------------|--------|
| 11a | Push multiple vMsg objects using different PUT operations. | [1] 4.2 | C.7 |
| 11b | Push multiple vMsg objects using the same PUT operation. | [1] 4.2 | C.7 |
| 12 | Push multiple vNote objects | [1] 4.2 | O |
| 12a | Multiple vNote objects using different PUT operations. | [1] 4.2 | C.8 |
| 12b | Push multiple vNote objects using the same PUT operation. | [1] 4.2 | C.8 |
| Business Card Pull | | | |
| 13 | Pull business card | [1] 4.3 | O |
| Content Format | | | |
| 14 | vCard 2.1 | [1] 4.3 | C.1 |
| Business Card Exchange | | | |
| 15 | Exchange business card | [1] 4.4 | O |
| Content Format | | | |
| 16 | vCard 2.1 | [1] 4.4 | C.2 |
| OPP v1.2 Features | | | |
| 17 | GOEP v2.0 or later | [3] GOEP v2.0 or later | C.9 |
| 18 | GOEP v2.0 or later Backwards Compatibility | [3] 6.2 | C.9 |
| 19 | OBEX over L2CAP | [4] | C.9 |
| 20 | OBEX Reliable Session | [3] 4.7 | C.10 |
| 21 | OBEX SRM | [3] 4.6 | C.10 |
| 22 | Send OBEX SRMP header | [3] 4.6 | C.10 |
| 23 | Receive OBEX SRMP header | [3] 4.6 | C.11 |

C.1: Mandatory IF OPP 2/13 “Pull business card”, otherwise Excluded.

C.2: Mandatory IF OPP 2/15 “Exchange business card”, otherwise Excluded.

C.3: Note: vCard 2.1 support is required for devices containing phonebook applications. vCard 2.1 support Optional for other devices.

C.4: Mandatory to support at least one IF OPP 2/8 “Support content formats other than those declared in OPP 2/4 through OPP 2/7”, otherwise Excluded.

C.5: Mandatory to support at least one IF OPP 2/9 “Push multiple vCard objects”, otherwise Excluded.

C.6: Mandatory to support at least one IF OPP 2/10 “Push multiple vCalendar objects”, otherwise Excluded.

C.7: Mandatory to support at least one IF OPP 2/11 “Push multiple vMsg objects”, otherwise Excluded.

C.8: Mandatory to support at least one IF OPP 2/12 “Push multiple vNote objects”, otherwise Excluded.

C.9: Mandatory IF OPP 1b/2 “OPP v1.2”, otherwise Excluded.

C.10: Optional IF OPP 1b/2 “OPP v1.2”, otherwise Excluded.

C.11: Mandatory IF OPP 2/17 “GOEP v2.0 or later” AND OPP 2/21 “OBEX SRM”, otherwise Excluded.

1.5 Object Push Server Role

1.5.1 Server Application Features

Table 3: Server Application Features

Prerequisite: OPP 1/2 “Object Push Server”

| Item | Capability | Reference | Status |
|-------------------------------|--|--------------------|--------|
| Service Discovery | | | |
| 1 | Provide information on supported content types on SD request | [1] 3.2, 6.1 | M |
| Authentication | | | |
| 2 | Authentication/PIN exchange supported | [1] 2.4 [2] 2.3 | M |
| Object Push | | | |
| 3 | Object Push | [1] 4.2 | M |
| 3a | Receive multiple objects during a single OBEX connection | [1] 4.2 | O |
| Content Format | | | |
| 4 | vCard 2.1 | [1] 4.2.1 | C.3 |
| 5 | vCalendar 1.0 | [1] 4.2.1 | O |
| 6 | vMSG as defined in IrMC 1.1 | [1] 4.2.1 | O |
| 7 | vNote as defined in IrMC 1.1 | [1] 4.2.1 | O |
| 8 | Support content formats other than those declared in OPP 3/4 through OPP 3/7 | [1] 4.2.1 | O |
| 8a | Support specific set of other content formats (please specify below) | [1] 4.2.1 | C.4 |
| 8b | Support all content formats | [1] 4.2.1 | C.4 |
| 9 | Object Push vCard reject | [1] 3.3.1 | O |
| 10 | Object Push vCal reject | [1] 3.3.1 | O |
| 11 | Object Push vMsg reject | [1] 3.3.1 | O |
| 12 | Object Push vNote reject | [1] 3.3.1 | O |
| Business Card Pull | | | |
| 13 | Business card pull | [1] 4.3 | C.8 |
| Content Format | | | |
| 14 | vCard 2.1 | [1] 4.3.1 | C.1 |
| 15 | Business card pull reject | [1] 3.3.2 | O |
| Business Card Exchange | | | |
| 16 | Exchange business card | [1] 4.4 | C.9 |
| Content Format | | | |
| 17 | vCard 2.1 | [1] 4.4.1 | C.2 |
| 18 | Business card exchange reject | [1] 3.3.3 | O |
| OPP v1.2 Features | | | |
| 19 | GOEP v2.0 or later | [3] | C.5 |
| 20 | GOEP v2.0 or later Backwards Compatibility | [3] 6.2 | C.5 |
| 21 | OBEX over L2CAP | [4] | C.5 |

| Item | Capability | Reference | Status |
|------|--------------------------|-----------|--------|
| 22 | OBEX Reliable Session | [3] 4.7 | C.6 |
| 23 | OBEX SRM | [3] 4.6 | C.6 |
| 24 | Send OBEX SRMP header | [3] 4.6 | C.6 |
| 25 | Receive OBEX SRMP header | [3] 4.6 | C.7 |

- C.1: Mandatory IF OPP 3/13 “Business card pull”, otherwise Excluded.
- C.2: Mandatory IF OPP 3/16 “Exchange business card”, otherwise Excluded.
- C.3: Note: vCard 2.1 support is required for devices containing phonebook applications. vCard 2.1 support Optional for other devices.
- C.4: Mandatory to support at least one IF OPP 3/8 “Support content formats other than those declared in OPP 3/4 through OPP 3/7”, otherwise Excluded.
- C.5: Mandatory IF OPP 2b/2 “OPP v1.2”, otherwise Excluded.
- C.6: Optional IF OPP 2b/2 “OPP v1.2”, otherwise Excluded.
- C.7: Mandatory IF OPP 3/19 “GOEP v2.0 or later” AND OPP 3/23 “OBEX SRM”, otherwise Excluded.
- C.8: Note: If not supported, an error message must be sent on request for Business Card Pull.
- C.9: Note: If not supported, an error message must be sent on request for Business Card Exchange.

1.6 Supplementary Interoperability Verification

It is recommended but not required to support any of the capabilities defined below. The Bluetooth license grant obtained through Qualification is not predicated on passing any test that is linked to support of these capabilities.

Table 4: Additional Object Push Capabilities

| Item | Capability | Reference | Status |
|------|---|-----------|--------|
| 1 | Abort-Push Operation | N/A | O |
| 2 | No longer used | N/A | N/A |
| 3 | Multiple vCards transferred as a single vObject | N/A | C.1 |
| 4 | Multiple vCards transfer | N/A | C.1 |
| 5 | vCards with multiple Phone Number Fields | N/A | C.1 |
| 6 | Push vCal to Different Time Zone Server | N/A | C.1 |

- C.1: Optional IF OPP 1/2 “Object Push Server”, otherwise Excluded.

2 References

- [1] Object Push Profile (OPP) Specification, Version 1.1
- [2] Object Push Profile (OPP) Specification, Version 1.2 and Version 1.2.1
- [3] Generic Object Exchange Profile (GOEP), Version 2.0 or later
- [4] IrDA Interoperability, Version 2.0

3 Revision history and acknowledgments

Revision History

| Publication Number | Revision Number | Date | Comments |
|--------------------|-----------------|------------|--|
| 0 | 1.1 | 2001-07 | First version for Specification 1.1 |
| 1 | 1.1.0 | 2004-12-07 | Incorporate editorial changes and format changes. Incorporate March, 2004 Addendum: TSE 434 for Table OPP 2 and Table OPP 3. |
| | 1.1.1r0 | 2006-11 | TSE 1765: Table 2 and Table 3: Add two rows and footnote C4 |
| | 1.1.1r1 | 2006-11-22 | Corrected wording from TSE 1765 for 2/8b and 3/8b; changed wording in 2.8b to exclude 2/4 to 2/7. |
| 2 | 1.1.1 | 2007-01-10 | Prepare for publication. |
| 3 | 1.1.2 | 2007-09-04 | TSE 1927: Table 2: Modify line 2; add line 2a |
| | 1.1.3r0 | 2008-09-18 | TSE2570: Add eight rows to Table 2, one row to Table 3 |
| 4 | 1.1.3 | 2008-12-04 | Prepare for publication. |
| 5 | 1.1.4r0 | 2009-04-29 | TSE 2846: Change 3/3a to O |
| | 1.1.5 | 2010-01-15 | Add new features OPP 1.2 (for GOEP v2 support) |
| | 1.1.6 | 2010-03-19 | Updates following OBEX WG review (add refs, correct conditional PICS) |
| | 1.1.7 | 2010-03-22 | Clarified that IrOBEX 1.5 features can only be supported in OPP 1.2 |
| | 1.1.8 | 2010-04-01 | Fixed incorrect PICS items in table 3, and associated Conditionals |
| | 1.2.0r0 | 2010-07-08 | Renumbered to match incrementing of spec version number |
| 6 | 1.2.0 | 2010-07-30 | Prepare for publication. |
| | 1.2.1r0 | 2012-02-20 | TSE 4686: New ICS table for Supplementary Interoperability Verification/Category-X test case mapping. |
| 7 | 1.2.1 | 2012-03-30 | Prepare for publication. |
| | 1.2.2r1 | 2012-09-06 | TSE 4942: Change to table 3, "Feature" replaces "Role" and Table 4, 4/2 is "Intentionally Left Blank" and status "N/A" |
| 8 | 1.2.2 | 2012-11-01 | Prepare for Publication |
| | 1.2.3r00 | 2014-10-05 | Template conversion. TSE 5956: Reference fixes. Update conditionals in Table 3 to update O.x to C.x per the current ICS standards. Editorial changes. |
| 9 | 1.2.3 | 2014-12-08 | Prepare for TCRL 2014-2 publication |
| | 1.2.4r00 | 2015-04-24 | TSE 5995: Updated Capability description for 3/3a |
| | 1.2.4r01 | 2015-05-12 | Editorial correction to Table 3 C.7 following review by Nerissa Green |
| | 1.2.4r02 | 2015-06-05 | Deleted Section 1.2 (Global Statement of Conformance) per current template standards. |

| Publication Number | Revision Number | Date | Comments |
|--------------------|-----------------------|----------------------------|--|
| 10 | 1.2.4 | 2015-07-14 | Prepared for TCRL 2015-1 publication |
| | 1.2.1.0r00 | 2015-10-28 | Updated version numbering to align with Specification version change from 1.2 to 1.2.1 for ESR09. With the specification taking a third identifying number, the ICS version identifier moves to the fourth number and starts again at 0. |
| | 1.2.1.0r01 | 2015-11-03 | Added items 1b/3 and 2b/3 for new profile version 1.2.1 (ESR09). |
| | 1.2.1.0r02 | 2015-11-24 | Added Tables 1c and 2c for minor profile versions. |
| | 1.2.1.0r03 | 2015-11-25 | Reviewed by Alicia Courtney. |
| 11 | 1.2.1.0 | 2015-12-22 | Prepared for TCRL 2015-2 publication. |
| | 1.2.1.1r00 | 2018-04-02 | TSE 10555 (rating 1): Template Conversion. |
| 12 | 1.2.1.1 | 2018-07-01 | Approved by BTI. Prepared for TCRL 2018-1 publication. |
| | 1.2.1.2 r00–r02 | 2019-04-02 – 2019-06-21 | TSE 11227 (rating 1): Updated “GOEP v2” references to “GOEP 2.0 or later.” |
| 13 | 1.2.1.2 | 2019-07-28 | Approved by BTI. Prepared for TCRL 2019-1 publication. |
| | 1.2.1.2ed2r00 | 2021-01-15 | TSE 15985 (rating 1): Changes for deprecation. |
| | 1.2.1.2 edition 2 | 2021-02-01 | Approved by BTI on 2021-01-18. Prepared for edition 2 publication. |
| | 1.2.1.2ed3 r00–r01 | 2021-10-18 – 2021-10-29 | TSE 17686 (rating 1): Updated to cover the latest deprecation and withdrawal dates, and other consistency checker and template-related editorials. |
| | 1.2.1.2 edition 3 | 2021-11-24 | Approved by BTI on 2021-11-08. Prepared for edition 3 publication. |
| | 1.2.1.2ed4 r00–r02 | 2023-02-07 – 2023-02-23 | TSE 22625 (rating 1): Adjusted the Withdrawal date from February 2023 to February 2024 for OPP 1.2. Moved Versions tables to the beginning of the document. Editorials to align the document with the latest ICS template. |
| | 1.2.1.2 edition 4 | 2023-02-27 | Approved by BTI on 2023-02-23. Prepared for edition 4 publication. |

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