

Proximity Profile (PXP)

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 Versions and roles

Table 0: Major Versions (X.Y)

Item	Version	Reference	Status
1	PXP v1.0	[1] v1.0	C.1
2	Item no longer used	N/A	N/A

C.1: Mandatory to support together with an active minor version after the date of deprecation.
Deprecated 2021-02-01. Withdrawn 2022-02-01.

Table 0a: Minor Versions (X.Y.Z)

Item	Version	Reference	Status
1	PXP v1.0.1	[1] v1.0.1	C.1

C.1: Mandatory IF PXP 0/1 “PXP v1.0” is supported, otherwise Excluded.

Table 1: Role Requirements

Item	Role	Reference	Status
1	Proximity Reporter	[1] 2.1	C.1
2	Proximity Monitor	[1] 2.1	C.1

C.1: Mandatory to support at least one of PXP 1/1 “Proximity Reporter” OR PXP 1/2 “Proximity Monitor”.

1.3 Transport

Table 2: Transport Requirements

Item	Transport	Reference	Status
1	Profile supported over BR/EDR	[1] 2.4	C.1
2	Profile supported over LE	[1] 2.4	M
3	Item no longer used	N/A	N/A

C.1: Excluded for this profile.

1.4 Proximity Reporter

1.4.1 Services – Proximity Reporter

Table 3: Services – Proximity Reporter

Prerequisite: PXP 1/1 “Proximity Reporter”

Item	Capability	Reference	Status
1	Implements Link Loss Service	[1] 3.1	M
2	Implements Immediate Alert Service	[1] 3.2	C.1
3	Implements Tx Power Service	[1] 3.3	C.2

C.1: Mandatory IF PXP 3/3 “Implements Tx Power Service” is supported, otherwise Excluded.

C.2: Mandatory IF PXP 3/2 “Implements Immediate Alert Service” is supported, otherwise Excluded.

1.4.2 GAP Requirements – Proximity Reporter

Table 4: GAP Requirements – Proximity Reporter

Prerequisite: PXP 1/1 “Proximity Reporter” AND PXP 2/2 “Profile supported over LE”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4	O	[3] GAP 5/3 or GAP 38/3
2	Central	[1] 2.4	O	[3] GAP 5/4 or GAP 38/4
3	Item no longer used	N/A	N/A	N/A
4	Item no longer used	N/A	N/A	N/A

1.4.3 SM Requirements – Proximity Reporter

Table 5: SM Requirements – Proximity Reporter

Prerequisite: PXP 1/1 “Proximity Reporter” AND PXP 2/2 “Profile supported over LE”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Unauthenticated no MITM protection	[1] 6.1	C.1	[4] SM 2/2
2	Authenticated MITM protection	[1] 6.1	C.1	[4] SM 2/1

C.1: Mandatory to support at least one of PXP 5/1 “Unauthenticated no MITM protection” OR PXP 5/2 “Authenticated MITM protection”.

1.5 Proximity Monitor

1.5.1 Features – Proximity Monitor

Table 6: Features – Proximity Monitor

Prerequisite: PXP 1/2 “Proximity Monitor”

Item	Capability	Reference	Status
1	Set Alert level	[1] 4.3	M
2	Write alert level for link loss	[1] 4.3	M
3	Alert on link loss	[1] 4.4	M
4	Read Tx Power level	[1] 4.5	O
5	Item no longer used	N/A	N/A
6	Alert on path loss	[1] 4.6	C.2
7	Write Alert Level when path loss exceeds threshold	[1] 4.6	C.1
8	Write Alert Level when path loss falls below threshold	[1] 4.6	C.1
9	Verify Bond Status on Reconnection	[1] 5.2.3	M

C.1: Mandatory IF PXP 6/6 “Alert on path loss” is supported, otherwise Excluded.

C.2: Optional IF PXP 6/4 “Read Tx Power level” is supported, otherwise Excluded.

1.5.2 Discover Services & Characteristics – Proximity Monitor

Table 7: Discover Services & Characteristics – Proximity Monitor

Prerequisite: PXP 1/2 “Proximity Monitor”

Item	Capability	Reference	Status
1	Discover Link Loss Service	[1] 4.1	M
2	Discover Immediate Alert Service	[1] 4.1	C.2
3	Discover Tx Power Service	[1] 4.1	C.1
4	Discover Alert Level characteristic for Link Loss	[1] 4.2	M
5	Discover Alert Level characteristic for Immediate Alert	[1] 4.2	C.1
6	Discover Tx Power Level characteristic	[1] 4.2	C.2
7	Discover Tx Power Level Characteristic Presentation Format Descriptor	[1] 4.2	O
8	Discover Tx Power Level Client Characteristic Configuration Descriptor	[1] 4.2	O
9	Item no longer used	N/A	N/A

C.1: Mandatory IF PXP 7/2 “Discover Immediate Alert Service” is supported, otherwise Excluded.

C.2: Mandatory IF PXP 7/3 “Discover Tx Power Service” is supported, otherwise Excluded.

1.5.3 GATT Requirements – Proximity Monitor

Table 8: GATT Requirements – Proximity Monitor

Prerequisite: PXP 1/2 “Proximity Monitor”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Attribute Protocol Supported over LE	[1] 1.1	M	[2] GATT 2/2
2	Item no longer used	N/A	N/A	N/A
3	Generic Attribute Profile (GATT) Client	[1] 2.1	M	[2] GATT 1/1
4	Discover All Primary Services	[1] 4.1, 7	C.1	[2] GATT 3/2
5	Discover Primary Services by Service UUID	[1] 4.1, 7	C.1	[2] GATT 3/3
6	Discover All characteristics of a Service	[1] 7	M	[2] GATT 3/5
7	Discover All Characteristic Descriptors	[1] 7	O	[2] GATT 3/7
8	Read Characteristic Value	[1] 7	O	[2] GATT 3/8
9	Write Characteristic Value	[1] 7	M	[2] GATT 3/14
10	Read Characteristic Descriptors	[1] 7	O	[2] GATT 3/19
11	Notifications	[1]	O	[2] GATT 3/17

C.1: Mandatory to support at least one of PXP 8/4 “Discover All Primary Services” OR PXP 8/5 “Discover Primary Services by Service UUID”.

1.5.4 GAP Requirements – Proximity Monitor

Table 9: GAP Requirements – Proximity Monitor

Prerequisite: PXP 1/2 “Proximity Monitor” AND PXP 2/2 “Profile supported over LE”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Central	[1] 2.4	O	[3] GAP 5/4 or GAP 38/4
2	Peripheral	[1] 2.4	O	[3] GAP 5/3 or GAP 38/3
3	Item no longer used	N/A	N/A	N/A
4	Item no longer used	N/A	N/A	N/A

1.5.5 SM Requirements – Proximity Monitor

Table 10: SM Requirements – Proximity Monitor

Prerequisite: PXP 1/2 “Proximity Monitor” AND PXP 2/2 “Profile supported over LE”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Unauthenticated no MITM protection	[1] 6.1	M	[4] SM 2/2
2	Authenticated MITM protection	[1] 6.1	M	[4] SM 2/1

2 References

- [1] Proximity Profile Specification, Version 1.0 or later
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] ICS Proforma for Generic Access Profile (GAP)
- [4] ICS Proforma for Security Manager (SM)

3 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2011-06-26	Prepare for publication.
	1.0.1r0	2011-11-23	TSE 4591: Table 6: Add C.3; update item 6/6.
	1.0.1r1	2012-02-012	TSE 4667 Remove GAP connection requirements; update Table 2, Table 4, Table 8, Table 9.
1	1.0.1	2012-03-30	Prepare for publication.
	1.0.2r1	2013-05-02	TSE 5150: Removed Table 7, Item 9 “A bonded collector shall authenticate at connection creation” because it is a duplication of 6/9. 7/9 now “intentionally left blank”.
	1.0.2r2	2013-05-05	Updated version and references to align with ESR06, added Table 0. (Rejected in revision 3)
	1.0.2r3	2013-06-05	Removed ESR06 revisions, updated revision history and versioning.
2	1.0.2	2013-07-02	Prepare for Publication.
	1.0.1.0r00	2015-05-20	ESR08 update: Added item 2 to Table 0 for PXP v1.0.1 Numbering note: Spec version has added a 3 rd digit and changes from 1.0 to 1.0.1. This pushes the numbering to indicate the version of this ICS document out to the 4 th digit, making this 1.0.1.1.
	1.0.1.0r01	2015-06-04	Deleted Section 1.2 (Global Statement of Conformance) per current ICS template standards.
	1.0.1.0r02	2015-06-07	Reviewed by Alicia Courtney. Converted to current document template. Other editorial updates.
3	1.0.1.0	2015-07-14	Prepared for TCRL 2015-1 publication.
	1.0.1.1r00	2019-04-08	TSE 11378 (rating 2): Updated template. Added a minor profile version table. Removed no longer needed items and conditionals related to BR/EDR features that were removed from the Specification before the 1.0 adoption. Applied ICS conventions to conditional wording. Placed the revision history and contributors tables at the end of the document.
	1.0.1.1r01	2019-06-18	Corrected inverted or redundant conditional logic conventions in Tables 3 and 7.
4	1.0.1.1	2019-07-29	Approved by BTI. Prepared for TCRL 2019-1 publication.
	1.0.1.1ed2 r00	2021-01-16	TSE 15987 (rating 1): Changes for deprecation. Template-related editorials, including setting previous v1.0.1.1 as p4.
	1.0.1.1 edition 2	2021-02-01	Approved by BTI on 2021-01-18. Prepared for edition 2 publication.

Publication Number	Revision Number	Date	Comments
	1.0.1.1 ed3r00	2021-07-23	TSE 16894 (rating 1): Corrected Inter-Layer Dependency for PXP 9/2 to “Peripheral”. Template-related editorials.
	1.0.1.1 edition 3	2021-08-20	Approved by BTI on 2021-08-19. Prepared for edition 3 publication.
	p5r00–r02	2021-08-27 – 2021-11-10	TSE 16791 (rating 2): Updated inter-layer dependencies, corrected references (removed unused references), updated deprecation & withdrawal formatting, and made other various editorial corrections. TSE 17841 (rating 2): Made additional consistency checker fixes. Performed template-related formatting fixes. Updated copyright page to align with v2 of the DNMD.
5	p5	2022-01-25	Approved by BTI on 2022-01-06. Prepared for TCRL 2021-2 publication.

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