HTTP Proxy Service (HPS)

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

- **Revision:** HPS.ICS.1.0.1 edition 3
- **Revision Date:** 2021-05-26
- **Group Prepared By:** BTI

This document, regardless of its title or content, is not a Bluetooth Specification subject to the licenses granted by the Bluetooth SIG Inc. ("Bluetooth SIG") and its members under the Bluetooth Patent/Copyright License Agreement and Bluetooth Trademark License Agreement.

THIS DOCUMENT IS PROVIDED "AS IS" AND BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES AND DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, THAT THE CONTENT OF THIS DOCUMENT IS FREE OF ERRORS.

TO THE EXTENT NOT PROHIBITED BY LAW, BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES DISCLAIM ALL LIABILITY ARISING OUT OF OR RELATING TO USE OF THIS DOCUMENT AND ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING LOST REVENUE, PROFITS, DATA OR PROGRAMS, OR BUSINESS INTERRUPTION, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, AND EVEN IF BLUETOOTH SIG, ITS MEMBERS, OR THEIR AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This document is proprietary to Bluetooth SIG. This document may contain or cover subject matter that is intellectual property of Bluetooth SIG and its members. The furnishing of this document does not grant any license to any intellectual property of Bluetooth SIG or its members.

This document is subject to change without notice.

Copyright © 2015–2021 by Bluetooth SIG, Inc. The Bluetooth word mark and logos are owned by Bluetooth SIG, Inc. Other third-party brands and names are the property of their respective owners.

Contents

1 Identification of the implementation 4
1.1 Implementation Under Test (IUT) identification 4
1.2 Roles and versions 5
1.3 Transport requirements 5
1.4 Service requirements 5
1.5 GATT requirements 6
1.6 SDP requirements 6
1.7 GAP requirements 6
2 References 8
3 Revision history and acknowledgments 9

1 Identification of the implementation

Identification of the Implementation Under Test (IUT) shall 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 shall be named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

1.1 Implementation Under Test (IUT) identification

IUT Name:

IUT Version (Hardware/Software ID):

IUT Supplier:

1.2 Roles and versions

Table 0: Major Versions (X.Y)

Item	Version	Reference	Status
1	HPS 1.0	[2]	M

1.3 Transport requirements

Table 1: Transport Requirements

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

C.1: Mandatory to support at least one of the defined transports.

1.4 Service requirements

Table 2: HPS Service and Characteristics

Item	Capability	Reference	Status
1	HTTP Proxy Service (HPS)	[2] 2	M
2	URI Characteristic	[2] 3.1	M
3	HTTP Header Characteristic	[2] 3.2	M
4	HTTP Entity Body Characteristic	[2] 3.3	M
5	HTTP Control Point Characteristic	[2] 3.4	M
6	HTTP Status Code Characteristic	[2] 3.5	M
7	HTTPS Security Characteristic	[2] 3.6	M
8	HTTP GET	[4] 9.3	M
9	HTTP HEAD	[4] 9.4	M
10	HTTP POST	[4] 9.5	M
11	HTTP PUT	[4] 9.6	M
12	HTTP DELETE	[4] 9.7	M
13	HTTPS GET	[4] 9.3, [5]	M
14	HTTPS HEAD	[4] 9.4, [5]	M
15	HTTPS POST	[4] 9.5, [5]	M
16	HTTPS PUT	[4] 9.6, [5]	M
17	HTTPS DELETE	[4] 9.7, [5]	M

Item	Capability	Reference	Status
18	HTTP CANCEL	[4] 9.8	M
19	HPS AD includes HPS UUID	[2] 4	C.1
20	HPS connects to client with HPS UUID in Service Solicitation AD type field	[2] 4	C.1

C.1: Mandatory IF HPS 1/2 “Service Supported over LE” is supported, otherwise Excluded.

1.5 GATT requirements

Table 3: 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 Characteristic Value	[2] 1.4	M	[3] GATT 4/8
3	Read Long Characteristic Values	[2] 1.4	M	[3] GATT 4/10
4	Write Characteristic Value	[2] 1.4	M	[3] GATT 4/14
5	Write Long Characteristic Values	[2] 1.4	M	[3] GATT 4/15
6	Notifications	[2] 1.4	M	[3] GATT 4/17
7	Read Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/19
8	Write Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/21

1.6 SDP requirements

Table 4: SDP Requirements

Prerequisite: HPS 1/1 “Service Supported over BR/EDR”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	ProtocolDescriptorList	[2] 1.5	M	[7] SDP 9/2
2	BrowseGroupList	[2] 1.5	M	[7] SDP 9/5

1.7 GAP requirements

Table 5: LE Connection Procedures

Prerequisite: HPS 1/2 “Service Supported over LE”

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Peripheral	[2] 4	M	[6] GAP 5/3 or GAP 38/3

Item	Capability	Reference	Status	Inter-Layer Dependency
2	Central	[2] 4	M	[6] GAP 5/4 or GAP 38/4

2 References

[1] Bluetooth Core Specification, Version 4.0 or later

[2] Bluetooth HTTP Proxy Service Specification, Version 1.0

[3] ICS Proforma for Generic Attribute Protocol (GATT), GATT.ICS

[4] IETF RFC-2616, Hyper Text Transfer Protocol – HTTP/1.1

[5] IETF RFC-2818, HTTP Over TLS

[6] ICS Proforma for Generic Access Profile (GAP), GAP.ICS

[7] ICS Proforma for Service Discovery Protocol (SDP), SDP.ICS

3 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2015-10-06	Prepared for publication
	1.0.1r00	2016-04-13	TSE 7013: TSE 7013: Update conditionals in Table 2 items 19 and 20 for LE dependency. Deleted Global Statement of Conformance section to align with the current ICS template. Table 5 (LE Connection Procedures) items updated for dual mode GAP ICS. Reference section document titles updated.
	1.0.1r01	2016-04-21	Reviewed by Alicia Courtney. Editorial changes made.
1	1.0.1	2016-07-13	Prepared for TCRL 2016-1 publication.
	1.0.1 edition 2r00	2018-11-26	Editorial changes only. Template updated. Revision History and contributors moved to the end of the document.
	1.0.1 edition 2	2019-12-12	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.
	1.0.1ed3 r00–r02	2021-03-24 – 2021-05-22	TSE 16090 (rating 1): Updated Tables 3, 4, and 5 for consistency issues and Inter-Layer Dependency column; added a reference to the SDP.ICS in the References section. Editorials to align with the latest ICS template. Added a Publication Number column and assigned publication number 1 to the previous v1.0.1. Consistency checker findings.
	1.0.1 edition 3	2021-05-26	Approved by BTI on 2021-05-06. Prepared for publication.

Acknowledgments

Name	Company
Jason Nydegger	Bluetooth SIG, Inc.
Meagan Schuver	Bluetooth SIG, Inc.
Victor Zhodzishsky	Broadcom
Joe Decuir	CSR

Name	Company
Frank Berntsen	Nordic Semiconductor
Krishna Shingala	Nordic Semiconductor