Hearing Access Service (HAS)

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

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- **Group Prepared By:** Hearing Aid Working Group

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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

Table 0: Major Versions (X.Y)

Item	Version	Reference	Status
1	Hearing Access Service 1.0	[1] 2.1	M

Table 1: Minor Versions (X.Y.Z)

Table number reserved but not yet in use

1.3 Transports

Table 2: Transport Requirements

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

C.1: Excluded for this Service.

1.4 Service requirements

1.4.1 Hearing Access Service

Table 3: Hearing Access Service

Item	Capability	Reference	Status
1	Hearing Aid Preset Control Point Characteristic	[1] 3.2	O
1a	Hearing Aid Preset Control Point Characteristic Notifications	[1] 3	C.5
2	Active Preset Index Characteristic	[1] 3.3	C.1
3	Hearing Aid Features Characteristic	[1] 3.1	M
4	Hearing Aid Features Characteristic Notification	[1] 3.1	C.2
5	Preset Synchronization Support	[1] 3.1	O
6	Dynamic Presets	[1] 3.1	O
7	Writable Presets	[1] 3.1	O
8	Independent Presets	[1] 3.1	O
9	Binaural Hearing Aid	[1] 3.1	C.3
10	Monaural Hearing Aid	[1] 3.1	C.3
11	Banded Hearing Aid	[1] 3.1	C.3
12	One or More Writable Preset Records	[1] 3.1	C.4
13	One or More Not Writable Preset Records	[1] 3.1	O
14	One or More Not Available Preset Records	[1] 3.1	O

C.1: Mandatory IF HAS 3/1 “Hearing Aid Preset Control Point Characteristic”, otherwise Excluded.
C.2: Optional IF HAS 3/3 “Hearing Aid Features Characteristic”, otherwise Excluded.
C.3: Mandatory to support at least one of HAS 3/9 “Binaural Hearing Aid” OR HAS 3/10 “Monaural Hearing Aid” OR HAS 3/11 “Banded Hearing Aid”.
C.4: Optional IF HAS 3/7 “Writable Presets”, otherwise Excluded.
C.5: Optional IF HAS 5/6 “Enhanced ATT bearer supported over LE”, otherwise Excluded.

Table 4: Hearing Aid Preset Control Point Requirements

Prerequisite: HAS 3/1 "Hearing Aid Preset Control Point Characteristic"

Item	Capability	Reference	Status
1	Read Presets Request Procedure	[1] 3.2.2.1	M
2	Read Preset Response Procedure	[1] 3.2.2.1	M
3	Preset Changed Procedure	[1] 3.2.2.2	C.2
4	Write Preset Name Procedure	[1] 3.2.2.3	C.1
5	Set Active Preset Procedure	[1] 3.2.2.4	M
6	Set Next Preset Procedure	[1] 3.2.2.5	M
7	Set Previous Preset Procedure	[1] 3.2.2.6	M
8	Set Active Preset – Synchronized Locally Procedure	[1] 3.2.2.7	C.3
9	Set Next Preset – Synchronized Locally Procedure	[1] 3.2.2.8	C.3
10	Set Previous Preset – Synchronized Locally Procedure	[1] 3.2.2.9	C.3

C.1: Mandatory IF HAS 3/7 "Writable Presets", otherwise Excluded.
C.2: Mandatory IF HAS 3/6 "Dynamic Presets", otherwise Excluded.
C.3: Mandatory IF HAS 3/5 "Preset Synchronization Support", otherwise Excluded.

1.5 GATT requirements

Table 5: GATT Requirements

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Write Characteristic Value	[1] 1.4	C.1	[2] GATT 4/14
2	Notifications	[1] 1.4	C.2	[2] GATT 4/17
3	Indications	[1] 1.4	C.1	[2] GATT 4/18
4	Read Characteristic Descriptors	[1] 1.4	C.1	[2] GATT 4/19
5	Write Characteristic Descriptors	[1] 1.4	C.1	[2] GATT 4/21
6	Enhanced ATT bearer supported over LE	[1] 3	O	[2] GATT 2/3a

C.1: Mandatory IF HAS 3/1 "Hearing Aid Preset Control Point Characteristic", otherwise Optional.
C.2: Mandatory IF HAS 3/1a "Hearing Aid Preset Control Point Characteristic Notifications", otherwise not defined.

2 References

[1] Hearing Access Service Specification, Version 1.0

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

3 Revision history and acknowledgments

Revision History

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0	p0	2022-06-14	Adopted by the BoD on 2022-06-07. Prepared for initial publication.

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Gene Chang	Bluetooth SIG, Inc.