Generic Health Sensor Service (GHSS)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

- **Revision:** GHSS.ICS.p2
- **Revision Date:** 2026-02-17
- **Prepared By:** Medical Devices Working Group
- **Published during TCRL:** TCRL.pkg102

Contents

1   General principles

1.1   Implementation Under Test (IUT) identification

Using the Bluetooth SIG qualification tool, the implementer is expected to declare details about what will be implemented.

1.2   Enforcement of inter-layer dependencies

This ICS includes one or more tables with inter-layer dependencies (ILDs). ILDs are used for specification requirements that are dependent on other supporting specifications. ILDs can refer to an individual ICS item in a separate layer (individual ILD), or it can refer to the full layer (full-layer ILD).

ILDs residing in an X2Core layer will be enforced from the Bluetooth SIG qualification tool in the following conditions, depending on where the referred ILD is residing:

Referred ILD resides in	Individual ILD	Full-layer ILD
Controller layer	Core-Complete configuration, or Referred layer is supported	N/A
Lower HCI layer	HCI is supported	N/A
Upper HCI layer	Core-Host configuration, or UHCI is supported	N/A
Host layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	N/A
X2Core layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	Core-Host configuration, or Core-Complete configuration

Table 1.1: Enforcement of an ILD within the Bluetooth SIG qualification tool

2   ICS declarations

2.1   Versions

Table 0: X.Y Versions

Item	Version	Reference	Status
1	GHSS v1.0	[1]	M

Table 1: X.Y.Z Versions

Table number reserved but not yet in use.

2.2   Transports

Table 2: Transport Requirements

Item	Transport	Reference	Status
1	Service supported over BR/EDR	[1] 2.3	C.1, C.3
2	Service supported over LE	[1] 2.3	C.2, C.3

C.1:   Excluded for this Service IF CORE 41/2 "LE Core Configuration" OR CORE 40/1 "Core-Controller".

C.2:   Excluded for this Service IF CORE 41/1 "BR/EDR Core Configuration" OR CORE 40/1 "Core-Controller".

C.3:   Mandatory to support at least one.

2.3   Features

Table 3: Health Sensor Features

Item	Capability	Reference	Status
1	Changeable Health Sensor Features	[1] 3, 3.1.2	O
2	Report live observations	[1] 2.7, 3.2.2.2	C.1
3	Report temporarily stored observations	[1] 2.7, 3.2.2.2	C.1
4	Report stored observations	[1] 2.7, 3.2.2.2	C.1
5	Server Supports Connections to Multiple Clients	[1] 3.1.2	O
6	Changeable Observation Schedule descriptor	[1] 3, 3.6	O
7	Report live or temporarily stored observations in parallel with stored observations	[1] 3.4.4	O

C.1:   Mandatory to support at least one.

2.4 Service requirements

2.4.1 Generic Health Sensor Service

Table 4: Generic Health Sensor Service

Item	Capability	Reference	Status
1	Health Sensor Features characteristic	[1] 3, 3.1	O
2	Supported Device Specializations field	[1] 3, 3.1.1	C.1
3	Health Sensor Features characteristic with indicate	[1] 3, 3.1.2	C.2
4	Observation Schedule descriptor	[1] 3, 3.7	O
5	Observation Schedule descriptor with write	[1] 3, 3.7	C.3
6	Valid Range and Accuracy descriptor	[1] 3, 3.7	O
7	Live Health Observations characteristic	[1] 3, 3.2	C.4
8	Live Health Observations characteristic with indicate	[1] 3, 3.2	C.5
9	Live Health Observations characteristic with notify	[1] 3, 3.2	C.5
10	Stored Health Observations characteristic	[1] 3, 3.3	C.6
11	RACP characteristic	[1] 3, 3.4	C.6
12	GHS Control Point characteristic	[1] 3, 3.5	C.4
13	Observation Schedule Changed characteristic	[1] 3, 3.6	C.7
14	Observation Schedule descriptor is settable via UI	[1] 3.6	C.3
15	Health Feature characteristic has a size beyond (ATT_MTU – 3)	[1] 3, 3.1	C.1
16	Simultaneous enabling of indications and notifications of the Live Health Observations characteristic	[1] 2.7, 3	C.8
17	Simultaneous enabling of indications and notifications of the Stored Health Observations characteristic	[1] 2.7, 3	C.9
18	Stored Health Observations characteristic with indicate	[1] 3, 3.3	C.10
19	Stored Health Observations characteristic with notify	[1] 3, 3.3	C.10

C.1: Optional IF GHSS 4/1 "Health Sensor Features characteristic", otherwise Excluded.

C.2: Mandatory IF GHSS 3/1 "Changeable Health Sensor Features", otherwise Excluded.

C.3: Optional IF GHSS 3/6 "Changeable Observation Schedule descriptor" AND GHSS 4/4 "Observation Schedule descriptor", otherwise Excluded.

C.4: Mandatory IF GHSS 3/2 "Report live observations" OR GHSS 3/3 "Report temporarily stored observations", otherwise Excluded.

C.5: Mandatory to support at least one IF GHSS 4/7 "Live Health Observations characteristic", otherwise Excluded.

C.6: Mandatory IF GHSS 3/4 "Report stored observations", otherwise Excluded.

C.7: Mandatory IF GHSS 3/6 "Changeable Observation Schedule descriptor", otherwise Excluded.

C.8: Optional IF GHSS 4/7 "Live Health Observations characteristic", otherwise Excluded.

C.9: Optional IF GHSS 4/10 "Stored Health Observations characteristic", otherwise Excluded.

C.10: Mandatory to support at least one IF GHSS 4/10 "Stored Health Observations characteristic", otherwise Excluded.

Table 5: Health Observation Body

Item	Capability	Reference	Status
1	Observation Type	[1] 3.2.1.5	M
2	Able to generate observation with Time Stamp present	[1] 3.2.1.6	C.1
3	Able to generate observation with Measurement Duration	[1] 3.2.1.7	O
4	Able to generate observation with Measurement Status	[1] 3.2.1.8	O
5	Able to generate observation with Observation Id	[1] 3.2.1.9	O
6	Able to generate observation with Patient	[1] 3.2.1.10	O
7	Able to generate observation with Supplemental Information	[1] 3.2.1.11	O
8	Able to generate observation with Derived From	[1] 3.2.1.12	O
9	Able to generate observation with Is Member Of	[1] 3.2.1.13	O
10	Able to generate observation with TLVs	[1] 3.2.1.14	O
11	Observation Value	[1] 3.2.1.15	M

C.1:   Mandatory IF GHSS 3/3 "Report temporarily stored observations" OR GHSS 3/4 "Report stored observations", otherwise Optional.

Table 6: Observation values

Item	Capability	Reference	Status
1	Able to generate Numeric observation value	[1] 3.2.1.15.1	C.1
2	Able to generate Simple discrete observation value	[1] 3.2.1.15.2	C.1
3	Able to generate String observation value	[1] 3.2.1.15.3	C.1
4	Able to generate Sample array observation value	[1] 3.2.1.15.4	C.1
5	Able to generate Compound observation value	[1] 3.2.1.15.7	C.1
6	Able to generate Compound Discrete Event observation value	[1] 3.2.1.15.5	C.1
7	Able to generate Compound State/Event observation (bit string) value	[1] 3.2.1.15.6	C.1
8	Able to generate TLV-encoded observation value	[1] 3.2.1.15.8	C.1
9	Able to generate Observation bundle value	[1] 3.2.1.15.9	C.1

C.1:   Mandatory to support at least one.

Table 7: Record Access Control Point

Prerequisite: GHSS 4/11 "RACP characteristic"

Item	Capability	Reference	Status
1	Combined Report	[1] 3.4.3.1	M
2	Report Number of Stored Records	[1] 3.4.3.2	M
3	Delete Stored Records	[1] 3.4.3.3	O
4	Abort Operation	[1] 3.4.3.4	O

2.5 GATT requirements

Table 8: GATT Requirements

Item	Capability	Reference	Status	Inter-Layer Dependency
1a	GATT Server over LE	[1] 2.5	C.1	[2] GATT 1a/3
1b	GATT Server over BR/EDR	[1] 2.5	C.6	[2] GATT 1a/4
2	Exchange MTU	[1] 2.5	C.1	[2] GATT 4/1
3	Read Long Characteristic Value	[1] 2.5	C.2	[2] GATT 4/10
4	Single Notification	[1] 2.5	C.3	[2] GATT 4/17
5	Indication	[1] 2.5	C.4	[2] GATT 4/18
6	Read Characteristic Descriptor	[1] 2.5	M	[2] GATT 4/19
7	Write Characteristic Descriptor	[1] 2.5	M	[2] GATT 4/21
8	Write Characteristic Value	[1] 2.5	C.5	[2] GATT 4/14

C.1: Mandatory IF GHSS 2/2 "Service supported over LE", otherwise not defined.

C.2: Mandatory IF GHSS 4/15 "Health Feature characteristic has a size beyond (ATT_MTU – 3)", otherwise not defined.

C.3: Mandatory IF GHSS 4/9 "Live Health Observations characteristic with notify" OR GHSS 4/19 "Stored Health Observations characteristic with notify", otherwise not defined.

C.4: Mandatory IF GHSS 4/3 "Health Sensor Features characteristic with indicate" OR GHSS 4/8 "Live Health Observations characteristic with indicate" OR GHSS 4/18 "Stored Health Observations characteristic with indicate" OR GHSS 4/11 "RACP characteristic" OR GHSS 4/13 "Observation Schedule Changed characteristic", otherwise not defined.

C.5: Mandatory IF GHSS 4/11 "RACP characteristic" OR GHSS 4/12 "GHS Control Point characteristic", otherwise not defined.

C.6: Mandatory IF GHSS 2/1 "Service supported over BR/EDR", otherwise not defined.

2.6 GAP requirements

Table 9: GAP Requirements

Prerequisite: GHSS 2/2 "Service supported over LE"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Bondable mode	[1] 3.1.2	C.1	[3] GAP 24/2
2	Bonding procedure	[1] 3.1.2	O	[3] GAP 24/3

C.1: Mandatory IF GHSS 9/2 "Bonding procedure", otherwise not defined.

2.7 SDP requirements

Table 10: SDP Requirements

Prerequisite: GHSS 2/1 "Service supported over BR/EDR"

Item	Capability	Reference	Status
1	SDP record present for GHSS	[1] 4	M

3 References

[1]   Generic Health Sensor Service Specification, Version 1.0

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

[3]   ICS Proforma for Generic Access Profile (GAP)

4 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	p0	2023-06-13	Approved by BTI on 2023-06-07. GHSS v1.0 adopted by the BoD on 2023-06-13. Prepared for initial publication.
	p1r00–r02	2024-10-04 – 2024-12-02	TSE 24702 (rating 2): Added Item 7 to Table 3.
1	p1	2025-02-18	Approved by BTI on 2024-12-23. Prepared for TCRL 2025-1 publication.
	p1ed2r00	2025-07-09	TSE 27327 (rating 1): Updated the Status for GHSS 2/1 and GHSS 2/2, added conditions C.1 and C.2, and renumbered the previous C.1 as C.3.
	p1 edition 2	2025-08-05	Approved by BTI on 2025-08-05. Prepared for edition 2 publication.
	p2r00–r01	2025-12-04 – 2026-01-08	TSE 28169 (rating 1): Updated the conditions in the transport table to make sure the layer is excluded when the design is an implementation of the Core-Controller Configuration by adding "OR CORE 40/1 "Core-Controller"" to an already excluded transport based on Core Configuration support.
2	p2	2026-02-17	Approved by BTI on 2026-01-21. Prepared for TCRL pkg102 publication.

Acknowledgments

Name	Company
Jörg Brakensiek	Bluetooth SIG, Inc.
Ismail Mohamud	Bluetooth SIG, Inc.
Erik Moll	Koninklijke Philips N.V.