Glucose Profile (GLP)

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

- **Revision:** GLP.ICS.p6
- **Revision Date:** 2026-02-17
- **Prepared By:** Medical Devices Working Group
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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	GLP v1.0	[1]	C.1, C.2

C.1: Mandatory.

C.2: Can only be supported with an active X.Y.Z version after Deprecation or Withdrawal. Deprecated 2023-02-01. Withdrawn 2025-02-01.

Table 0a: X.Y.Z Versions

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

C.1: Mandatory IF GLP 0/1 "GLP v1.0", otherwise Excluded.

2.2 Roles

Table 1: Role Requirements

Item	Role	Reference	Status
1	Glucose Sensor	[1] 2.1	C.1
2	Collector	[1] 2.1	C.1

C.1: Mandatory to support at least one.

2.3 Transports

Table 2: Transport Requirements

Item	Transport	Reference	Status
1	Profile supported over BR/EDR	[1] 2.5	C.1
2	Profile supported over LE	[1] 2.5	C.2, C.3

C.1: Excluded for this Profile.

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

C.3: Mandatory for this Profile.

2.4 Sensor role

2.4.1 Services (Sensor)

Table 3: Services (Sensor)

Prerequisite: GLP 1/1 "Glucose Sensor"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Glucose Service	[1] 3	M	[2] GLS

Item	Capability	Reference	Status	Inter-Layer Dependency
2	Service UUID	[1] 3.1.1	O	[5] GAP 20a/1
3	Local Name	[1] 3.1.2	O	[5] GAP 20a/2
4	Public Target Address	[1] 3.1.4	C.3	[5] GAP 20a/12
4a	Random Target Address	[1] 3.1.4	C.3	[5] GAP 20a/13
4b	Target Address in AD or Scan Response	[1] 3.1.4	C.1	N/A
5–6	No longer used	N/A	N/A	N/A
7	Device Information Service	[1] 3	M	[3] DIS
8	Support for Multiple Bonds	[1] 3.1.4	C.2	N/A
9	Support for Single Bond	[1] 3.1.4	C.2	N/A

C.1:   Optional IF GLP 3/8 "Support for Multiple Bonds", otherwise Excluded.

C.2:   Mandatory to support at least one.

C.3:   Mandatory to support at least one IF GLP 3/4b "Target Address in AD or Scan Response", otherwise not defined.

2.4.2   DIS requirements (Sensor)

Table 4: DIS Requirements (Sensor)

Prerequisite: GLP 1/1 "Glucose Sensor"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Manufacturer Name String Characteristic	[1] 3.2	M	[3] DIS 2/2
2	Model Number String Characteristic	[1] 3.2	M	[3] DIS 2/3
3	System ID Characteristic	[1] 3.2	M	[3] DIS 2/8

2.4.3   GAP requirements (Sensor)

Table 5: GAP Requirements (Sensor)

Prerequisite: GLP 1/1 "Glucose Sensor"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4	M	[5] GAP 5/3
2	LE security mode 1	[1] 6.1	M	[5] GAP 25/1
3	Writable Device Name	[1] 3.1.3	O	[5] GAP 27/6
4	Bondable mode	[1] 5.1.1	M	[5] GAP 24/2
5	Unauthenticated no MITM protection	[1] 6.1	C.1	[5] GAP 27b/3
6	Authenticated MITM protection	[1] 6.1	C.1	[5] GAP 27b/2

C.1:   Mandatory to support at least one.

Table 6: No longer used

2.5 Collector role

2.5.1 Service Support (Collector)

Table 7: Client Services Supported

Prerequisite: GLP 1/2 "Collector"

Item	Capability	Reference	Status
1	Discover Glucose Service	[1] 4	M
2	Discover Device Information Service	[1] 4	O

2.5.2 Discover Services and Characteristics (Collector)

Table 8: Discover Services and Characteristics (Collector)

Prerequisite: GLP 1/2 "Collector"

Item	Capability	Reference	Status
1	Discover Glucose Service	[1] 4.2.1	M
2	Discover Glucose Measurement characteristic	[1] 4.3.1.1	M
3	Discover Glucose Measurement - Client Characteristic Configuration Descriptor	[1] 4.3.1.1	M
4	Discover Glucose Measurement Context characteristic	[1] 4.3.1.2	M
5	Discover Glucose Measurement Context - Client Characteristic Configuration Descriptor	[1] 4.3.1.2	M
6	Discover Glucose Feature characteristic	[1] 4.3.1.3	M
6a	Discover Glucose Feature - Client Characteristic Configuration Descriptor	[6] 4.3.1.3	M
7	Discover Record Access Control Point characteristic	[1] 4.3.1.4	M
8	Discover Record Access Control Point - Client Characteristic Configuration Descriptor	[1] 4.3.1.4	M

2.5.3 Features (Collector)

Table 9: Features (Collector)

Prerequisite: GLP 1/2 "Collector"

Item	Role/Service	Reference	Status
1	Configure Glucose Measurement characteristic for notifications	[1] 4.4	M
2	Receive Glucose Measurement characteristic notifications	[1] 4.4	M
3	Configure Glucose Measurement Context characteristic for notifications	[1] 4.5	M

Item	Role/Service	Reference	Status
4	Receive Glucose Measurement Context characteristic notifications	[1] 4.5	M
5	Configure Record Access Control Point characteristic for indications	[1] 4.7	M
6	Receive Record Access Control Point characteristic indications	[1] 4.7	M
7	Write to Record Access Control Point characteristic	[1] 4.7	M
8	RACP Characteristic - Report Stored Records Op Code	[1] 4.7.3.4, 4.7.2	M
9	RACP Characteristic - Delete Stored Records Op Code	[1] 4.7.3.3, 4.7.2	O
10	RACP Characteristic - Abort Operation Op Code	[1] 4.7.3.5, 4.7.2	O
11	RACP Characteristic - Report Number of Stored Records Op Code	[1] 4.7.3.2, 4.7.2	O
12	Sequence Number Filter Type of RACP Characteristic	[1] 4.7.2	M
13	User Facing Time Filter Type of RACP Characteristic	[1] 4.7.2	O
14	Read Glucose Feature characteristic	[1] 4.6	M
15	Verify Bond Status on Reconnection	[1] 5.2.2	M
16	Support for Multiple Bonds	[1] 5.2.2	O
17	Configure characteristic for indications to determine supported features	[6] 4.6	C.1

C.1:   Optional IF GLP 0/1 "GLP v1.0" AND NOT GLP 0a/1 "GLP v1.0.1", otherwise Mandatory.

Table 9a: Determining Supported Features – Configure Characteristic for Indications

Prerequisite: GLP 9/17 "Configure characteristic for indications to determine supported features"

Item	Capability	Reference	Status
1	Configure and receive Glucose Feature characteristic indications	[6] 4.3.1.3, 4.6	C.1
2	Read Glucose Feature characteristic on reconnection	[6] 4.6	C.1

C.1:   Mandatory to support at least one IF GLP 9/16 "Support for Multiple Bonds", otherwise Excluded.

Table 10: Report Stored Records Operators and Filter Parameters

Prerequisite: GLP 9/8 "RACP Characteristic - Report Stored Records Op Code"

Item	Capability	Reference	Status
1	All records Operator	[1] 4.7.3.4, 4.7.2	M
2	Less than or equal to Operator	[1] 4.7.3.4, 4.7.2	O
3	Less than or equal to Operator – Sequence Number Operand	[1] 4.7.3.4, 4.7.2	C.1
4	Less than or equal to Operator – User Facing Time Operand	[1] 4.7.3.4, 4.7.2	C.2
5	Greater than or equal to Operator	[1] 4.7.3.4, 4.7.2	M

Item	Capability	Reference	Status
6	Greater than or equal to Operator – Sequence Number Operand	[1] 4.7.3.4, 4.7.2	M
7	Greater than or equal to Operator – User Facing Time Operand	[1] 4.7.3.4, 4.7.2	C.3
8	Within range of (inclusive) Operator	[1] 4.7.3.4, 4.7.2	O
9	Within range of (inclusive) Operator – Sequence Number Operand	[1] 4.7.3.4, 4.7.2	C.4
10	Within range of (inclusive) Operator – User Facing Time Operand	[1] 4.7.3.4, 4.7.2	C.5
11	First record Operator	[1] 4.7.3.4, 4.7.2	O
12	Last record Operator	[1] 4.7.3.4, 4.7.2	O

C.1:   Mandatory IF GLP 10/2 "Less than or equal to Operator", otherwise Excluded.

C.2:   Optional IF GLP 10/2 "Less than or equal to Operator", otherwise Excluded.

C.3:   Optional IF GLP 10/5 "Greater than or equal to Operator", otherwise Excluded.

C.4:   Mandatory IF GLP 10/8 "Within range of (inclusive) Operator", otherwise Excluded.

C.5:   Optional IF GLP 10/8 "Within range of (inclusive) Operator", otherwise Excluded.

Table 11: Delete Stored Records Operators and Filter Parameters

Prerequisite: GLP 9/9 "RACP Characteristic - Delete Stored Records Op Code"

Item	Capability	Reference	Status
1	All records Operator	[1] 4.7.3.3, 4.7.2	M
2	Less than or equal to Operator	[1] 4.7.3.3, 4.7.2	O
3	Less than or equal to Operator – Sequence Number Operand	[1] 4.7.3.3, 4.7.2	C.1
4	Less than or equal to Operator – User Facing Time Operand	[1] 4.7.3.3, 4.7.2	C.2
5	Greater than or equal to Operator	[1] 4.7.3.3, 4.7.2	O
6	Greater than or equal to Operator – Sequence Number Operand	[1] 4.7.3.3, 4.7.2	C.3
7	Greater than or equal to Operator – User Facing Time Operand	[1] 4.7.3.3, 4.7.2	C.4
8	Within range of (inclusive) Operator	[1] 4.7.3.3, 4.7.2	O
9	Within range of (inclusive) Operator – Sequence Number Operand	[1] 4.7.3.3, 4.7.2	C.5
10	Within range of (inclusive) Operator – User Facing Time Operand	[1] 4.7.3.3, 4.7.2	C.6
11	First record Operator	[1] 4.7.3.3, 4.7.2	O
12	Last record Operator	[1] 4.7.3.3, 4.7.2	O

C.1:   Mandatory IF GLP 11/2 "Less than or equal to Operator", otherwise Excluded.

C.2:   Optional IF GLP 11/2 "Less than or equal to Operator", otherwise Excluded.

C.3:   Mandatory IF GLP 11/5 "Greater than or equal to Operator", otherwise Excluded.

C.4:   Optional IF GLP 11/5 "Greater than or equal to Operator", otherwise Excluded.

C.5: Mandatory IF GLP 11/8 "Within range of (inclusive) Operator", otherwise Excluded.

C.6: Optional IF GLP 11/8 "Within range of (inclusive) Operator", otherwise Excluded.

Table 12: Report Number of Stored Records Operators and Filter Parameters

Prerequisite: GLP 9/11 "RACP Characteristic - Report Number of Stored Records Op Code"

Item	Capability	Reference	Status
1	All records Operator	[1] 4.7.3.2, 4.7.2	M
2	Less than or equal to Operator	[1] 4.7.3.2, 4.7.2	O
3	Less than or equal to Operator – Sequence Number Operand	[1] 4.7.3.2, 4.7.2	C.1
4	Less than or equal to Operator – User Facing Time Operand	[1] 4.7.3.2, 4.7.2	C.2
5	Greater than or equal to Operator	[1] 4.7.3.2, 4.7.2	M
6	Greater than or equal to Operator – Sequence Number Operand	[1] 4.7.3.2, 4.7.2	M
7	Greater than or equal to Operator – User Facing Time Operand	[1] 4.7.3.2, 4.7.2	C.3
8	Within range of (inclusive) Operator	[1] 4.7.3.2, 4.7.2	O
9	Within range of (inclusive) Operator – Sequence Number Operand	[1] 4.7.3.2, 4.7.2	C.4
10	Within range of (inclusive) Operator – User Facing Time Operand	[1] 4.7.3.2, 4.7.2	C.5
11	First record Operator	[1] 4.7.3.2, 4.7.2	O
12	Last record Operator	[1] 4.7.3.2, 4.7.2	O

C.1: Mandatory IF GLP 12/2 "Less than or equal to Operator", otherwise Excluded.

C.2: Optional IF GLP 12/2 "Less than or equal to Operator", otherwise Excluded r.

C.3: Optional IF GLP 12/5 "Greater than or equal to Operator", otherwise Excluded.

C.4: Mandatory IF GLP 12/8 "Within range of (inclusive) Operator", otherwise Excluded.

C.5: Optional IF GLP 12/8 "Within range of (inclusive) Operator", otherwise Excluded.

2.5.4 Discover DIS and related characteristics (Collector)

Table 13: Client Services Supported

Prerequisite: GLP 1/2 "Collector" AND GLP 7/2 "Discover Device Information Service"

Item	Capability	Reference	Status
1	Discover Device Information Service	[1] 4.2.2	C.1
2	Manufacturer Name String Characteristic	[1] 3.2, 4.3.2, 4.8	O
3	Model Number String Characteristic	[1] 3.2, 4.3.2, 4.8	O
4	System ID Characteristic	[1] 3.2, 4.3.2, 4.8	O

C.1: Mandatory IF GLP 13/2 "Manufacturer Name String Characteristic" OR GLP 13/3 "Model Number String Characteristic" OR GLP 13/4 "System ID Characteristic", otherwise Optional.

2.5.5 GATT requirements (Collector)

Table 14: GATT Requirements (Collector)

Prerequisite: GLP 1/2 "Collector"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
2	GATT Client over LE	[1] 2.5	M	[4] GATT 1a/1
3	Discover All Primary Services	[1] 4.2	C.1	[4] GATT 3/2
4	Discover Primary Service by Service UUID	[1] 4.2	C.1	[4] GATT 3/3
5	Discover All Characteristics of a Service	[1] 4.3.1, 4.3.2	C.2	[4] GATT 3/5
6	Discover Characteristics by UUID	[1] 4.3.1, 4.3.2	C.2	[4] GATT 3/6
7	Discover All Characteristic Descriptors	[1] 4.3.1	M	[4] GATT 3/7
8	Single Notification	[1] 4.5	M	[4] GATT 3/17
9	Write Characteristic Value	[1] 4.5	M	[4] GATT 3/14
10	Authentication procedure	[1] 5.2, 6.2	M	[4] GATT 7/4
11	Read Characteristic Descriptor	[1] 4.1	M	[4] GATT 3/19
12	Write Characteristic Descriptor	[1] 4.1	M	[4] GATT 3/21

C.1: Mandatory to support at least one.
C.2: Mandatory to support at least one.

2.5.6 GAP requirements (Collector)

Table 15: GAP Requirements (Collector)

Prerequisite: GLP 1/2 "Collector"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Central	[1] 2.4	M	[5] GAP 5/4
2	LE security mode 1	[1] 6.2	M	[5] GAP 35/1
3	Unauthenticated no MITM protection	[1] 6.1	M	[5] GAP 37b/3
4	Authenticated MITM protection	[1] 6.1	M	[5] GAP 37b/2

Table 16: No longer used

3 References

[1] Glucose Profile Specification, Version 1.0 or later

[2] ICS Proforma for Glucose Service

[3] ICS Proforma for Device Information Service (DIS)

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

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

[6] Glucose Profile Specification, Version 1.0.1

4   Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2012-04-03	Adopted by the Bluetooth SIG Board of Directors
	1.0.1r00	2015-05-10	Added functioning references throughout document. Updated conditional language to current conventions. TSE 6282: Added item 8 to table 3 for Single Bond.
1	1.0.1	2015-07-14	Prepared for TCRL 2015-1 publication
	1.0.2r00	2016-10-04	TSE 7516: Added Table 0. Added reference to "GAP 27/6" in GLP.ICS 5/3. Editorial changes to conditionals in Tables 10 – 12. Editorial changes to References.
2	1.0.2	2016-12-13	Approved by BTI. Prepared for TCRL 2016-2 publication.
	p3r00–r06	2021-03-10 – 2021-12-21	TSE 16856 (rating 4): Updated ICS conditionals in Table 0 for GLP v1.0. Addition of new ICS item 0a/1 for CGMP v1.0.1 and new conditionals in Table 0a. Added new ICS items 6a and 9/17 and table (Table 9a) for E16276 - proper handling of changing supported features by characteristic indication. Added a reference for Glucose Profile Specification v1.0.1. TSE 18150 (rating 3): Added ILDs to Table 3 and aligned to the GAP ICS. Added new ICS items 4a - Random Target Address (C.3) (ILD = GAP 20a/13), and 4b - Target Address in AD or Scan Response (C.1) (No ILD). Changed the conditional of item 4 "Public Target Address" to C.3 and ILD = GAP 20a/12. Added C.3 - Mandatory to support either GLP 3/4 "Public Target Address" OR GLP 3/4a "Random Target Address" IF GLP 4b "Target Address in AD or Scan Response" is supported, otherwise not defined. Removed ICS items 3/5 and 3/6. TSE 18151 (rating 1): Corrected the description of item 9/10 from "Abort Procedure" to "Abort Operation" to correspond with the opcodes in Table 4.4. Editorials, including updating the ICS to the latest template, making consistency checker fixes, and aligning the copyright data with v2 of the DNMD.
3	p3	2022-01-25	Approved by BTI on 2022-01-06. Prepared for TCRL 2021-2 publication.
	p4r00–r01	2023-09-26 – 2023-12-12	TSE 23174 (rating 2): Resolved GAP and SM inter-layer dependencies. Made editorial edits to align the document with the latest ICS template, including updates to the titles of Tables 0 and 0a and C.1 for Tables 0, 0a, and 1 and removal of "is supported" language. In Table 3, updated C.1–C.3. In Table 5, added Items 5 and 6 and conditional C.1. Marked Tables 6 and 16 as no longer used. Updated the prerequisite for Table 13. In Table 7, updated the Capability value for Items 1 and 2. In Tables 9 and 9a,

Publication Number	Revision Number	Date	Comments
			updated C.1. In Table 14, marked Item 1 as no longer used, updated the Capability and ILD values for Item 2, and updated C.1 and C.2. Added Items 3 and 4 to Table 15. Updated the references. Deleted draft revision history comments prior to p0.
4	p4	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p4ed2r00–r01	2025-07-09 – 2025-07-16	TSE 27352 (rating 1): Updated the Status for GLP 2/2 and added conditions C.2 and C.3.
	p4 edition 2	2025-08-05	Approved by BTI on 2025-08-05. Prepared for edition 2 publication.
	p5r00	2025-08-13	TSE 27554 (rating 1): Updated the ILD column for Items 5/1 and 15/1 to delete references to GAP Table 38.
5	p5	2025-11-04	Approved by BTI on 2025-10-02. Prepared for TCRL pkg101 publication.
	p6r00–r01	2025-12-04 – 2025-12-31	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.
6	p6	2026-02-17	Approved by BTI on 2026-01-21. Prepared for TCRL pkg102 publication.