

Continuous Glucose Monitoring Service (CGMS)

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

Table 0: X.Y Versions

Item	Version	Reference	Status
1	CGMS 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. Deprecated 2021-02-01. Withdrawn 2022-02-01.

Table 0a: X.Y.Z Versions

Item	Version	Reference	Status
1	CGMS v1.0.1**	[1]	Deprecated 2023-02-01. Withdrawn 2025-02-01.
2	CGMS v1.0.2	[1]	C.2

C.1: No longer used.

C.2: Mandatory IF CGMS 0/1 “CGMS v1.0”, otherwise Excluded.

1.3 Transports

Table 1: 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	C.1

C.1: Mandatory to support at least one.

1.4 Service requirements

Table 2: Feature Requirements

Item	Feature	Reference	Status
1	Calibration	[1] 3.2.1.1	O
1a	Calibration Data Record number 0	[3] 3.7.2.2	C.2
2	Patient High/Low Alerts	[1] 3.2.1.1	O
3	Hypo Alert	[1] 3.2.1.1	O
4	Hyper Alert	[1] 3.2.1.1	O
5	Rate of Increase/Decrease Alert	[1] 3.2.1.1	O
6	Device Specific Alert	[1] 3.2.1.1	O
7	E2E-CRC	[1] 3.2.1.1	O
8	Multiple Bonds	[1] 3.2.1.1	O
9	Multiple Sessions	[1] 3.2.1.1	O

**Deprecated versions may not appear in the Bluetooth SIG qualification tool after the deprecation date. TCRLs published after this date will not allow the use of deprecated versions.



Item	Feature	Reference	Status
10	CGM Trend Information	[1] 3.2.1.1	O
11	CGM Quality	[1] 3.2.1.1	O
12	Indications for changes of supported features	[3] 3, 3.2.1	M

C.1: No longer used.

C.2: Mandatory IF CGMS 2/1 “Calibration”, otherwise Excluded.

Table 2a: Indications for changes of supported features

Prerequisite: CGMS 2/12 “Indications for changes of supported features”

Item	Feature	Reference	Status
1	Changeable CGM Feature	[3] 3, 3.2.1	O
2	CGM Feature characteristic indication	[3] 3, 3.2.1	C.1

C.1: Mandatory IF CGMS 2a/1 “Changeable CGM Feature”, otherwise Excluded.

Table 3: Service Requirements

Item	Feature	Reference	Status
1	CGM Service	[1] 2	M
2	CGM Measurement Characteristic	[1] 3.1	M
3	Size field of CGM Measurement Characteristic	[1] 3.1.1.1	M
4	Flags field of CGM Measurement Characteristic	[1] 3.1.1.1	M
5	CGM Glucose Concentration field of CGM Measurement Characteristic	[1] 3.1.1.2	M
6	Time Offset field of CGM Measurement Characteristic	[1] 3.1.1.3	M
7	Sensor Status Annunciation field of CGM Measurement Characteristic	[1] 3.1.1.4	M
8	CGM Trend Information field of CGM Measurement Characteristic	[1] 3.1.1.6	C.11
9	CGM Quality field of CGM Measurement Characteristic	[1] 3.1.1.7	C.12
10	E2E-CRC field	[1] 3.1.1.8	C.13
11	CGM Feature Characteristic	[1] 3.2	M
12	CGM Status Characteristic	[1] 3.3	M
13	CGM Session Start Time Characteristic	[1] 3.4	M
14	CGM Session Run Time Characteristic	[1] 3.5	M
15	Record Access Control Point (RACP) Characteristic	[1] 3.6.	M
16	Report Stored Records Op Code	[1] 3.6.2, 3.6.3.4	M
17	Delete Stored Records Op Code	[1] 3.6.2, 3.6.3.3	O
18	Abort Operation Op Code	[1] 3.6.2, 3.6.3.5	M
19	Report Number of Stored Records Op Code	[1] 3.6.2, 3.6.3.2	M
20	Number of Stored Records Response Op Code	[1] 3.6.2, 3.6.3.2	M
21	Response Code Op Code (RACP)	[1] 3.6.2, 3.8	M

Item	Feature	Reference	Status
22	CGM Specific Ops Control Point (CGMCP) Characteristic	[1] 3.7.1	M
23	Set CGM communication interval Op Code	[1] 3.7.1, 3.7.2.1	M
24	Get CGM communication interval Op Code	[1] 3.7.1, 3.7.2.1	M
24b	Disable Periodic Communication	[1] 3.7.1, 3.7.2.1	O
25	Set Glucose Calibration Value Op Code	[1] 3.7.1, 3.7.2.2	C.1
26	Get Glucose Calibration Value Op Code	[1] 3.7.1, 3.7.2.2	C.1
27	Set Patient High Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
28	Get Patient High Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
29	Set Patient Low Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
30	Get Patient Low Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
31	Set Hypo Alert Level Op Code	[1] 3.7.1, 3.7.2.4	C.3
32	Get Hypo Alert Level Op Code	[1] 3.7.1, 3.7.2.4	C.4
33	Set Hyper Alert Level Op Code	[1] 3.7.1, 3.7.2.5	C.5
34	Get Hyper Alert Level Op Code	[1] 3.7.1, 3.7.2.5	C.6
35	Set Rate of Decrease Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.7
36	Get Rate of Decrease Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.8
37	Set Rate of Increase Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.7
38	Get Rate of Increase Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.8
39	Reset Device Specific Alert	[1] 3.7.1, 3.7.2.7	C.9
40	Start Session Op Code	[1] 3.7.1, 3.7.2.8	C.10
41	Stop Session Op Code	[1] 3.7.1, 3.7.2.9	C.10
42	Response Communication Interval Op Code	[1] 3.7.1, 3.7.2.1	M
43	Response Calibration Value Op Code	[1] 3.7.1, 3.7.2.2	C.1
44	Response Patient High Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
45	Response Patient Low Alert Level Op Code	[1] 3.7.1, 3.7.2.3	C.2
46	Response Hypo Alert Level Op Code	[1] 3.7.1, 3.7.2.4	C.4
47	Response Hyper Alert Level Op Code	[1] 3.7.1, 3.7.2.5	C.6
48	Response Rate of Decrease Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.8
49	Response Rate of Increase Alert Level Op Code	[1] 3.7.1, 3.7.2.6	C.8
50	Response Code Op Code (CGMCP)	[1] 3.7.1, 3.8	M

- C.1: Mandatory IF CGMS 2/1 "Calibration", otherwise Excluded.
- C.2: Mandatory IF CGMS 2/2 "Patient High/Low Alerts", otherwise Excluded.
- C.3: Optional IF CGMS 2/3 "Hypo Alert", otherwise Excluded.
- C.4: Mandatory IF CGMS 2/3 "Hypo Alert", otherwise Excluded.
- C.5: Optional IF CGMS 2/4 "Hyper Alert", otherwise Excluded.
- C.6: Mandatory IF CGMS 2/4 "Hyper Alert", otherwise Excluded.
- C.7: Optional IF CGMS 2/5 "Rate of Increase/Decrease Alert", otherwise Excluded.
- C.8: Mandatory IF CGMS 2/5 "Rate of Increase/Decrease Alert", otherwise Excluded.
- C.9: Mandatory IF CGMS 2/6 "Device Specific Alert", otherwise Excluded.
- C.10: Mandatory IF CGMS 2/9 "Multiple Sessions", otherwise Optional.
- C.11: Optional IF CGMS 2/10 "CGM Trend Information", otherwise Excluded.



C.12: Optional IF CGMS 2/11 "CGM Quality", otherwise Excluded.

C.13: Mandatory IF CGMS 2/7 "E2E-CRC", otherwise Excluded.

Table 4: Report Stored Records Filter Parameters

Prerequisite: CGMS 3/16 "Report Stored Records Op Code"

Item	Feature	Reference	Status
1	All Records Operator	[1] 3.6.2, 3.6.3.4	M
2	Less than or equal to Operator	[1] 3.6.2, 3.6.3.4	O
3	Less than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.4	C.1
4	Greater than or equal to Operator	[1] 3.6.2, 3.6.3.4	M
5	Greater than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.4	M
6	Within range of (inclusive) Operator	[1] 3.6.2, 3.6.3.4	O
7	Within range of (inclusive) Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.4	C.2
8	First record Operator	[1] 3.6.2, 3.6.3.4	O
9	Last record Operator	[1] 3.6.2, 3.6.3.4	O

C.1: Mandatory IF CGMS 4/2 "Less than or equal to Operator", otherwise Excluded.

C.2: Mandatory IF CGMS 4/6 "Within range of (inclusive) Operator", otherwise Excluded.

Table 5: Delete Stored Records Filter Parameters

Prerequisite: CGMS 3/17 "Delete Stored Records Op Code"

Item	Feature	Reference	Status
1	All Records Operator	[1] 3.6.2, 3.6.3.3	M
2	Less than or equal to Operator	[1] 3.6.2, 3.6.3.3	O
3	Less than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.3	C.1
4	Greater than or equal to Operator	[1] 3.6.2, 3.6.3.3	O
5	Greater than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.3	C.2
6	Within range of (inclusive) Operator	[1] 3.6.2, 3.6.3.3	O
7	Within range of (inclusive) Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.3	C.3
8	First record Operator	[1] 3.6.2, 3.6.3.3	O
9	Last record Operator	[1] 3.6.2, 3.6.3.3	O

C.1: Mandatory IF CGMS 5/2 "Less than or equal to Operator", otherwise Excluded.

C.2: Mandatory IF CGMS 5/4 "Greater than or equal to Operator", otherwise Excluded.

C.3: Mandatory IF CGMS 5/6 "Within range of (inclusive) Operator", otherwise Excluded.

Table 6: Abort Operation Filter Parameters*Prerequisite: CGMS 3/18 “Abort Operation Op Code”*

Item	Feature	Reference	Status
1	Null Operator	[1] 3.6.2, 3.6.3.5	M

Table 7: Report Number of Stored Records Filter Parameters*Prerequisite: CGMS 3/19 “Report Number of Stored Records Op Code”*

Item	Feature	Reference	Status
1	All Records Operator	[1] 3.6.2, 3.6.3.2	M
2	Less than or equal to Operator	[1] 3.6.2, 3.6.3.2	O
3	Less than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.2	C.1
4	Greater than or equal to Operator	[1] 3.6.2, 3.6.3.2	M
5	Greater than or equal to Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.2	M
6	Within range of (inclusive) Operator	[1] 3.6.2, 3.6.3.2	O
7	Within range of (inclusive) Operator – Time Offset Operand	[1] 3.6.2, 3.6.3.2	C.2
8	First record Operator	[1] 3.6.2, 3.6.3.2	O
9	Last record Operator	[1] 3.6.2, 3.6.3.2	O

C.1: Mandatory IF CGMS 7/2 “Less than or equal to Operator”, otherwise Excluded.

C.2: Mandatory IF CGMS 7/6 “Within range of (inclusive) Operator”, otherwise Excluded.

Table 8: Number of Stored Records Response Filter Parameters*Prerequisite: CGMS 3/20 “Number of Stored Records Response Op Code”*

Item	Feature	Reference	Status
1	Null Operator	[1] 3.6.3.2	M

Table 9: Response Code Filter Parameters*Prerequisite: CGMS 3/21 “Response Code Op Code (RACP)”*

Item	Feature	Reference	Status
1	Null Operator	[1] 3.6.2	M

1.5 GATT requirements

Table 10: GATT Requirements

Item	Feature	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
2	GATT Server over BR/EDR	[1] 1.5	C.1	[2] GATT 1a/4

Item	Feature	Reference	Status	Inter-Layer Dependency
3	GATT Server over LE	[1] 1.5	C.2	[2] GATT 1a/3
4	Read Characteristic Value	[1] 1.4	M	[2] GATT 4/8
5	Write Characteristic Value	[1] 1.4	M	[2] GATT 4/14
6	Notifications	[1] 1.4	M	[2] GATT 4/17
7	Indications	[1] 1.4	M	[2] GATT 4/18
8	Read Characteristic Descriptors	[1] 1.4	M	[2] GATT 4/19
9	Write Characteristic Descriptors	[1] 1.4	M	[2] GATT 4/21

C.1: Mandatory IF CGMS 1/1 “Service supported over BR/EDR”, otherwise not defined.

C.2: Mandatory IF CGMS 1/2 “Service supported over LE”, otherwise not defined.

1.6 SDP requirements

Table 11: SDP Requirements

Prerequisite: CGMS 1/1 “Service supported over BR/EDR”

Item	Feature	Reference	Status
1	SDP record present for CGMS	[1] 4	M
2–3	No longer used	N/A	N/A

Table 12: No longer used

2 References

- [1] Continuous Glucose Monitoring Service Specification, Version 1.0 or later
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] Continuous Glucose Monitoring Service Specification, Version 1.0.2

3 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2014-11-25	Prepare for Publication
	1.0.1r00	2015-10-01	TSE 6624: Corrected prerequisites for Table 4, 5, 6, 7, 8, and 9.
	1.0.1.0r00	2015-10-28	Updated version numbering to align with Specification version change from 1.0 to 1.0.1 for ESR09. With the specification taking a third identifying number, the ICS version identifier moves to the fourth number and starts again at 0.
	1.0.1.0r01	2015-11-24	Added Tables 0 and 0a for major and minor service versions.
1	1.0.1.0	2015-12-22	Prepared for TCRL 2015-2 publication
	1.0.1.1r00	2016-10-05	TSE 7200: Added item 3/24b (Disable Periodic Communication).
2	1.0.1.1	2016-12-13	Approved by BTI. Prepared for TCRL 2016-2 publication.
	1.0.1.2r00	2019-04-02	TSE 11376 (rating 1): Updated template. Added pre-requisite to Table 11. Corrected specification name typo in Table 0a. Moved Revision History and Contributors to the end of the document.
3	1.0.1.2	2019-07-29	Approved by BTI. Prepared for TCRL 2019-1 publication.
	1.0.1.2ed2 r00	2021-01-10	TSE 15978 (rating 1): Updated for deprecations.
	1.0.1.2 edition 2	2021-02-01	Approved by BTI on 2021-01-15. Prepared for edition 2 publication.
	1.0.1.2ed3 r00–r01	2021-04-16 – 2021-05-23	TSE 16803 (rating 1): Updated deprecation and withdrawal information in version Tables 0 and 0a. Template and consistency checker editorials. Assigned publication number 3 to previous v1.0.1.2.
p4	1.0.1.2 edition 3	2021-05-25	Approved by BTI on 2021-05-06. Prepared for edition 3 publication.
	p5r00–r03	2021-08-02 – 2021-12-21	TSE 16857 (rating 4): Added new ICS item 0a/2 for CGMS v1.0.2 and new conditionals C.1 – C.3 in Table 0a for CGMS v1.0.1 and v1.0.2. New Table 12 added for GAP inter-layer dependencies. Added new ICS item 2/12 and table (Table 2a) for E16239 - proper handling of changing supported features by characteristic indication. Added a reference for Continuous Glucose Monitoring Service Specification v1.0.2. TSE 17484 (rating 1): Changed C.1 in Table 0 to require selection of a major version.

Publication Number	Revision Number	Date	Comments
			TSE 18072 (rating 3): Added ICS items 2/10 and 2/11 and added new conditionals for items 3/8, 3/9, and 3/10 to show the dependency to the newly added Table 2 items. TSE 18074 (rating 1): Fixed typo in Table 3 items 1 and 2 by replacing “GGM” with CGM. Updated the reference for item 3/24b. TSE 18087 (rating 4): Changes from E17414. Added ICS item 2/1a “Calibration Data Record number 0”. Editorials: For items CGMS 2/1–9, removed “Supported” from the feature name. Removed reference to Bluetooth Core Specification, as it is not used. Updated ICS to the latest template and made editorial changes, including updating the copyright info to align with v2 of the DNMD and making consistency checker fixes.
5	p5	2022-01-25	Approved by BTI on 2022-01-06. Prepared for TCRL 2021-2 publication.
	p6r00–r01	2023-10-11 – 2023-12-11	TSE 23646 (rating 2): Resolved GAP, GATT, and SDP inter-layer dependencies. In Table 0, updated the Status value for Item 1, added new conditional C.1, and updated the existing C.1 (now C.2). In Table 0a, marked Item 1 as Deprecated, updated the Status value for Items 1 and 2, marked C.1 as no longer used, updated C.2, and deleted C.3. In Table 1, updated C.1. In Table 2, updated the Status value for Item 12, marked C.1 as no longer used, and updated C.2. Updated C.1 for Table 2a. In Table 10, marked Item 1 as no longer used, updated the Capability and ILD values for Items 2 and 3, and updated C.1 and C.2. In Table 11, deleted the ILD column, updated the Feature value for Item 1, and marked Items 2 and 3 as no longer used. Marked Table 12 as no longer used. Made editorial edits to align the document with the latest ICS template, including updates to section and table titles and removal of “is supported” language in conditionals. Updated the references.
6	p6	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.

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Jörg Brakensiek	Bluetooth SIG, Inc.
Ismail Mohamud	Bluetooth SIG, Inc.
Alicia Courtney	Broadcom
Leif-Alexandre Aschehoug	Nordic Semiconductor
Craig Carlson	Roche Diabetes Care
Wolfgang Heck	Roche Diabetes Care

