Volume Offset Control Service (VOCS)

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

- **Revision:** VOCS.ICS.p2 edition 2
- **Revision Date:** 2025-08-05
- **Prepared By:** Generic Audio 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	VOCS v1.0	[1]	M

Table 0a: X.Y.Z Versions

Item	Version	Reference	Status
1	VOCS v1.0.1	[3]	O

2.2 Transports

Table 1: Transport Requirements

Item	Transport	Reference	Status
1	Service supported over BR/EDR	[1] 1.5	C.1, C.3
2	Service supported over LE	[1] 1.5	C.2, C.3

C.1: Excluded for this Service IF CORE 41/2 “LE Core Configuration”.

C.2: Excluded for this Service IF CORE 41/1 “BR/EDR Core Configuration”.

C.3: Mandatory to support at least one.

2.3 Service requirements

Table 2: Volume Offset Control Service

Item	Service	Reference	Status
1	Volume Offset State Characteristic	[1] 3.1	M
2	Audio Location Characteristic	[1] 3.2	M
3	Volume Offset Control Point	[1] 3.3	M
4	Audio Output Description Characteristic	[1] 3.4	M
5	Writeable Audio Location Characteristic	[1] 3.2	O
6	Notifiable Audio Location Characteristic	[1] 3.2	C.1
7	Writeable Audio Output Description Characteristic	[1] 3.4	O
8	Notifiable Audio Output Description Characteristic	[1] 3.4	C.2

C.1: Mandatory IF VOCS 2/5 “Writeable Audio Location Characteristic”, otherwise Optional.

C.2: Mandatory IF VOCS 2/7 “Writeable Audio Output Description Characteristic”, otherwise Optional.

2.4 GATT requirements

Table 3: GATT Requirements

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Write Characteristic Value	[1] 1.4	M	[2] GATT 4/14

Item	Feature	Reference	Status	Inter-Layer Dependency
2	Single Notification	[1] 1.4	M	[2] GATT 4/17
3	Read Characteristic Descriptors	[1] 1.4	M	[2] GATT 4/19
4	Write Characteristic Descriptors	[1] 1.4	M	[2] GATT 4/21
5	GATT Server over BR/EDR	[1] 1.4	C.1	[2] GATT 1a/4
6	GATT Server over LE	[1] 1.4	C.2	[2] GATT 1a/3

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

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

2.5 SDP requirements

Table 4: SDP Requirements

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

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

3 References

[1] Volume Offset Control Service Specification, Version 1.0 or later

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

[3] Volume Offset Control Service Specification, Version 1.0.1

4 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	p0	2020-12-22	Approved by BTI on 2020-11-29. VOCS v1.0 adopted by the BoD on 2020-12-15. Prepared for publication.
	p1r00	2023-08-16	TSE 23684 (rating 2): Removed SDP and GAP ICSs from the References section. Added 3/5 and 3/6 and associated conditionals C.1 and C.2. Updated Table 4 by removing the ILD column, revising the Feature description for 4/1, and deleting 4/2, 4/3, and 4/4. Editorials throughout to align the document with the latest ICS conventions.
1	p1	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p2r00	2024-08-15	TSE 25561 (rating 1): Per E16653, E19314, and E23882, added Table 0a to account for VOCS v1.0.1 as part of the .Z release. Updated the references list.
2	p2	2024-10-08	Approved by BTI on 2024-09-11. VOCS v1.0.1 adopted by the BoD on 2024-10-01. Prepared for TCRL 2024-2-addition publication.
	p2ed2r00–r01	2025-07-09 – 2025-07-15	TSE 27340 (rating 1): Updated the Status value for VOCS 1/1 and VOCS 1/2, added conditions C.1 and C.2, and renumbered the previous C.1 as C.3.
	p2 edition 2	2025-08-05	Approved by BTI on 2025-08-05. Prepared for edition 2 publication.

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