

Audio Stream Control Service (ASCS)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

- **Revision:** ASCS.ICS.p5
- **Revision Date:** 2026-02-17
- **Prepared By:** Generic Audio Working Group
- **Published during TCRL:** TCRL.pkg102



This document, regardless of its title or content, is not a Bluetooth Specification as defined in the Bluetooth Patent/Copyright License Agreement (“PCLA”) and Bluetooth Trademark License Agreement. Use of this document by members of Bluetooth SIG is governed by the membership and other related agreements between Bluetooth SIG Inc. (“Bluetooth SIG”) and its members, including the PCLA and other agreements posted on Bluetooth SIG’s website located at www.bluetooth.com.

THIS DOCUMENT IS PROVIDED “AS IS” AND BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES AND DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, THAT THE CONTENT OF THIS DOCUMENT IS FREE OF ERRORS.

TO THE EXTENT NOT PROHIBITED BY LAW, BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES DISCLAIM ALL LIABILITY ARISING OUT OF OR RELATING TO USE OF THIS DOCUMENT AND ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING LOST REVENUE, PROFITS, DATA OR PROGRAMS, OR BUSINESS INTERRUPTION, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, AND EVEN IF BLUETOOTH SIG, ITS MEMBERS, OR THEIR AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This document is proprietary to Bluetooth SIG. This document may contain or cover subject matter that is intellectual property of Bluetooth SIG and its members. The furnishing of this document does not grant any license to any intellectual property of Bluetooth SIG or its members.

This document is subject to change without notice.

Copyright © 2019–2026 by Bluetooth SIG, Inc. The Bluetooth word mark and logos are owned by Bluetooth SIG, Inc. Other third-party brands and names are the property of their respective owners.



Contents

1	General principles	4
1.1	Implementation Under Test (IUT) identification	4
1.2	Enforcement of inter-layer dependencies	4
2	ICS declarations	5
2.1	Versions	5
2.2	Transports	5
2.3	Features	5
2.3.1	Audio Stream Control Service	5
2.3.2	ASE Operations	6
2.4	GATT requirements	7
2.5	SDP requirements.....	7
3	References	8
4	Revision history and acknowledgments	9



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	ASCS v1.0	[1]	M

Table 1: X.Y.Z Versions

Item	Version	Reference	Status
1	ASCS v1.0.1	[4]	O

2.2 Transports

Table 2: 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” 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

2.3.1 Audio Stream Control Service

Table 3: Included Services

Item	Requirement	Reference	Status	Inter-Layer Dependency
1	Published Audio Capabilities Service	[1] 1.2	M	[3] PACS

Table 4: Features

Item	Requirement	Reference	Status
1	Support Multiple ASEs	[1] 4	O
2	Support Multiple Sink ASEs	[1] 4	C.1
3	Support Multiple Source ASEs	[1] 4	C.2

C.1: Optional IF ASCS 4/1 “Support Multiple ASEs” AND ASCS 5/1 “Sink ASE characteristic”, otherwise Excluded.

C.2: Optional IF ASCS 4/1 “Support Multiple ASEs” AND ASCS 5/2 “Source ASE characteristic”, otherwise Excluded.

Table 5: Included Characteristics

Item	Requirement	Reference	Status
1	Sink ASE characteristic	[1] 4.1	C.1
2	Source ASE characteristic	[1] 4.1	C.1
3	ASE Control Point characteristic	[1] 4.2	M

C.1: Mandatory to support at least one.

2.3.2 ASE Operations

Table 6: ASE Control Operations

Item	Operation	Reference	Status
1	Config Codec	[1] 5.1	M
2	Config QoS	[1] 5.2	M
3	Enable	[1] 5.3	M
4	Receiver Start Ready	[1] 5.4	M
5	Disable	[1] 5.5	M
6	Receiver Stop Ready	[1] 5.6	C.1
7	Update Metadata	[1] 5.7	M
8	Release	[1] 5.8	M
9	Released	[1] 5.9	M

C.1: Mandatory IF ASCS 5/2 "Source ASE characteristic", otherwise Excluded.

Table 7: Server-Initiated ASE Control Operations

Item	Capability	Reference	Status
1	Autonomous Config Codec	[1] 5.1	O
2	Autonomous Receiver Start Ready	[1] 5.4	M
3	Autonomous Disable	[1] 5.5	O
4	Autonomous Update Metadata	[1] 5.7	O
5	Autonomous Release	[1] 5.8	O

Table 8: ASE State Transitions

Item	Capability	Reference	Status
1	Released transition to Codec Configured state	[1] 5.9	C.1
2	Released transition to Idle state	[1] 5.9	C.1

C.1: Mandatory to support at least one.

2.4 GATT requirements

Table 9: GATT Requirements

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Write Without Response	[1] 1.4	M	[2] GATT 4/12
2	Write Characteristic Value	[1] 1.4	M	[2] GATT 4/14
3	Write Long Characteristic Value	[1] 1.4	M	[2] GATT 4/15
4	Single Notification	[1] 1.4	M	[2] GATT 4/17
5	Read Characteristic Descriptor	[1] 1.4	M	[2] GATT 4/19
6	Write Characteristic Descriptor	[1] 1.4	M	[2] GATT 4/21
7	Enhanced ATT bearer (BR/EDR or LE)	[1] 1.4	O	[2] GATT 2/3a OR GATT 2/3b
8	GATT Server over BR/EDR	[1] 1.4	C.1	[2] GATT 1a/4
9	GATT Server over LE	[1] 1.4	C.2	[2] GATT 1a/3

C.1: Mandatory IF ASCS 2/1 “Service supported over BR/EDR”, otherwise not defined.

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

2.5 SDP requirements

Table 10: SDP Requirements

Prerequisite: ASCS 2/1 “Service supported over BR/EDR”

Item	Feature	Reference	Status
1	SDP record present for ASCS	[1] 6	M
2–5	No longer used	N/A	N/A

3 References

- [1] Audio Stream Control Service Specification (ASCS), Version 1.0 or later
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] ICS Proforma for Published Audio Capabilities Service (PACS)
- [4] Audio Stream Control Service Specification (ASCS), Version 1.0.1

4 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	p0	2021-09-21	Approved by BTI on 2021-08-19. Audio Stream Control Service (ASCS) v1.0 adopted by the BoD on 2021-09-14. Prepared for initial publication.
	p0ed2r00–r01	2022-04-04 – 2022-04-21	TSE 18376 (rating 1): Updated “is/are/not supported” language in conditionals globally to align with the latest ICS conventions. Template-related and consistency checker editorials.
	p0 edition 2	2022-04-25	Approved by BTI on 2022-04-25. Prepared for edition 2 publication.
	p0ed3r00	2023-02-13	TSE 22639 (rating 1): In Table 9, replaced GATT 2/3 with “GATT 2/3a or GATT 2/3b”. Editorials to align the document with the latest ICS template.
	p0 edition 3	2023-03-13	Approved by BTI on 2023-03-13. Prepared for edition 3 publication.
	p1r00–r01	2023-10-04 – 2023-11-28	TSE 23657 (rating 2): To resolve GATT and SDP ILDs and update to the latest template conventions, updated naming for 0/1; added 9/8 and 9/9 with related conditionals C.1 and C.2; and updated Table 10 by removing the ILD column, deleting items 10/2–10/5 and conditional C.1, and renaming 10/1.
1	p1	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p2r00	2024-08-13	TSE 25559 (rating 1): Per E18689, E18874, E22139, E22265, E22461, and E23755, added new X.Y.Z version as part of the .Z release. Added a reference to ASCS v1.0.1.
2	p2	2024-10-08	Approved by BTI on 2024-09-11. ASCS v1.0.1 adopted by the BoD on 2024-10-01. Prepared for TCRL 2024-2-addition publication.
	p3r00–r01	2024-10-21 – 2024-12-06	TSE 25916 (rating 2): Added Items 2 and 3 and conditionals C.1 and C.2 to Table 4.
3	p3	2025-02-18	Approved by BTI on 2025-02-09. Prepared for TCRL 2025-1 publication.
	p4r00	2025-04-10	TSE 27312 (rating 1): Updated the Status value for ASCS 2/1 and ASCS 2/2. Added conditionals C.1 and C.2 to Table 2 and renumbered C.1 as C.3.
4	p4	2025-07-08	Approved by BTI on 2025-05-30. Prepared for TCRL pkg100 publication.
	p5r00–r01	2025-12-05 – 2026-01-14	TSE 28372 (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.

Publication Number	Revision Number	Date	Comments
5	p5	2026-02-17	Approved by BTI on 2026-01-26. Prepared for TCRL pkg102 publication.

Acknowledgments

Name	Company
Gene Chang	Bluetooth SIG, Inc.
Andrei Frincu	Bluetooth SIG, Inc.
Jim Harper	Bluetooth SIG, Inc.
Charlie Lenahan	Bluetooth SIG, Inc.
Jawid Mirani	Bluetooth SIG, Inc.