# Audio Input Control Service (AICS)

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

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# 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<br>Referred layer is supported | N/A |
| Lower HCI layer | HCI is supported | N/A |
| Upper HCI layer | Core-Host configuration, or<br>UHCI is supported | N/A |
| Host layer | Core-Host configuration, or<br>Core-Complete configuration, or<br>Referred layer is supported | N/A |
| X2Core layer | Core-Host configuration, or<br>Core-Complete configuration, or<br>Referred layer is supported | Core-Host configuration, or<br>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 | AICS v1.0 | [1] | M |

**Table 0a: X.Y.Z Versions**

| Item | Version | Reference | Status |
|---|---|---|---|
| 1 | AICS 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” 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 Service requirements

### 2.3.1 Audio Input Control Service

**Table 2: Audio Input Control Service**

| Item | Capability | Reference | Status |
|---|---|---|---|
| 1 | Audio Input State Characteristic | [1] 3.1 | M |
| 2 | Gain Setting Properties Characteristic | [1] 3.2 | M |
| 3 | Audio Input Type Characteristic | [1] 3.3 | M |
| 4 | Audio Input Status Characteristic | [1] 3.4 | M |
| 5 | Audio Input Control Point Characteristic | [1] 3.5 | M |
| 6 | Audio Input Description Characteristic | [1] 3.6 | M |
| 7 | Writeable Audio Input Description Characteristic | [1] 3.6 | O |
| 8 | Notifiable Audio Input Description Characteristic | [1] 3.6 | C.1 |
| 9 | Autonomous Automatic Only Support | [1] 3.1.3 | O |
| 10 | Autonomous Manual Only Support | [1] 3.1.3 | O |

C.1: Mandatory IF AICS 2/7 "Writeable Audio Input Description Characteristic", otherwise Optional.

**Table 3: Audio Input Control Point Procedure Requirements**

| Item | Capability | Reference | Status |
|---|---|---|---|
| 1 | Set Gain Setting | [1] 3.5.2.1 | M |
| 2 | Unmute | [1] 3.5.2.2 | M |
| 3 | Mute | [1] 3.5.2.3 | M |
| 3b | Mute Disabled | [1] 3.5.2.2 | O |
| 4 | Set Manual Gain Mode | [1] 3.5.2.4 | M |
| 5 | Set Automatic Gain Mode | [1] 3.5.2.5 | M |

## 2.4 GATT requirements

**Table 4: GATT Requirements**

| Item | Feature | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 1 | Write Characteristic Value | [1] 1.4 | M | [2] GATT 4/14 |
| 2 | Single Notification | [1] 1.4 | M | [2] GATT 4/17 |
| 3 | Read Characteristic Descriptor | [1] 1.4 | M | [2] GATT 4/19 |
| 4 | Write Characteristic Descriptor | [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 AICS 1/1 "Service supported over BR/EDR", otherwise not defined.

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

## 2.5 SDP requirements

**Table 5: SDP Requirements**

*Prerequisite: AICS 1/1 “Service supported over BR/EDR”*

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

# 3 References

[1] Audio Input Control Service Specification, Version 1.0 or later

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

[3] Audio Input 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. AICS v1.0 adopted by the BoD on 2020-12-15. Prepared for publication. |
| | p1r00 | 2023-08-15 | TSE 23656 (rating 2): Added 4/5 and 4/6 and associated conditionals C.1 and C.2. Removed the ILD column from Table 5. Updated the Feature name of 5/1, and deleted 5/2, 5/3, and 5/4. Deleted references to the GAP and SDP ICSs. Updated globally to align with the latest ICS template conventions. |
| 1 | p1 | 2024-07-01 | Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication. |
| | p2r00–r02 | 2024-11-18 – 2024-12-18 | TSE 25929 (rating 2): To align with E26031, added 3/3b.<br>TSE 25983 (rating 4): To align with E26032, added 2/9 and 2/10.<br>TSE 26907 (rating 1): Per E16466, E26031, and E26032, added Table 0a to account for AICS v1.0.1 as part of the .Z release. Updated the references list and the Reference value in Item 0/1.<br>Updated 4/2 to Single Notification. |
| 2 | p2 | 2025-02-18 | Approved by BTI on 2025-02-09. AICS v1.0.1 adopted by the BoD on 2024-02-11. Prepared for TCRL 2025-1 publication. |
| | p3r00 | 2025-04-18 | TSE 27309 (rating 1): Updated the Status value for AICS 1/1 and AICS 1/2. Added conditions C.1 and C.2 to Table 1, and renumbered C.1 as C.3. |
| 3 | p3 | 2025-07-08 | Approved by BTI on 2025-05-30. Prepared for TCRL pkg100 publication. |
| | p4r00–r01 | 2025-12-05 – 2026-01-12 | 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. |
| 4 | p4 | 2026-02-17 | Approved by BTI on 2026-01-26. Prepared for TCRL pkg102 publication. |

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