

Coordinated Set Identification Profile (CSIP)

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 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 Roles

Table 1: Role Requirements

| Item | Role | Reference | Status |
|------|-----------------|-----------|--------|
| 1 | Set Member | [1] 2.1 | C.1 |
| 2 | Set Coordinator | [1] 2.1 | C.1 |

C.1: Mandatory to support at least one.

2.2 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.1 |

C.1: Mandatory to support at least one.

2.3 Set Member role

Table 3: Set Member, X.Y Versions

Prerequisite: CSIP 1/1 "Set Member"

| Item | Version | Reference | Status |
|------|-----------|-----------|----------|
| 1 | CSIP 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 2025-02-01. Withdrawn 2027-02-01.

Table 4: Set Member, X.Y.Z Versions

Prerequisite: CSIP 1/1 "Set Member"

| Item | Version | Reference | Status |
|------|----------------|-----------|--------|
| 1 | No longer used | N/A | N/A |
| 2 | CSIP v1.0.1 | [1] | C.1 |

C.1: Mandatory IF CSIP 3/1 "CSIP v1.0", otherwise Excluded.

2.3.1 Services – Set Member role

Table 5: Services Requirements

Prerequisite: CSIP 1/1 "Set Member"

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|------|--|-----------|--------|------------------------|
| 1 | Coordinated Set Identification Service | [1] 3 | M | [4] CSIS |
| 2 | PSRI AD Type field over LE | [1] 3.1.1 | C.1 | N/A |

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|------|--------------------------|-----------|--------|------------------------|
| 3 | PSRI AD Type over BR/EDR | [1] 3.1.1 | C.2 | N/A |
| 4 | Encrypted SIRK | [1] 4.6.1 | C.3 | [4] CSIS 2/5 |
| 5 | Plaintext SIRK | [1] 4.6.1 | C.3 | [4] CSIS 2/6 |
| 6 | OOB SIRK Only | [1] 4.6.1 | C.3 | [4] CSIS 2/7 |

C.1: Mandatory IF CSIP 2/2 “Profile supported over LE”, otherwise Excluded.

C.2: Mandatory IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise Excluded.

C.3: Mandatory to support at least one.

2.3.2 GAP requirements

Table 6: GAP Requirements – Set Member Role

Prerequisite: CSIP 1/1 “Set Member”

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|------|--|-----------|--------|-------------------------|
| 1 | LE security mode 1 | [1] 6.1 | C.1 | [3] GAP 25/1 |
| 2 | Peripheral | [1] 2.4.1 | C.1 | [3] GAP 5/3 OR GAP 38/3 |
| 3 | Bondable mode (LE) | [1] 7.1 | C.7 | [3] GAP 24/2 |
| 4 | Privacy feature | [1] 6.1 | C.7 | [3] GAP 26/1 |
| 5 | Bondable mode (BR/EDR) | [1] 7.1 | C.8 | [3] GAP 1/7 |
| 6 | Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only | [1] 6 | C.5 | [3] GAP 25/11 |
| 7 | Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only | [1] 6 | C.5 | [3] GAP 25/12 |
| 8 | LE security mode 1 level 4 | [1] 6 | C.5 | [3] GAP 25/9 |
| 9 | Minimum 128 Bit entropy key (LE) | [1] 6.1 | C.6 | [3] GAP 25/13 |
| 10 | Derivation of LE LTK from BR/EDR Link Key | [1] 6.1 | C.9 | [3] GAP 43/2b |
| 11 | Security mode 4, level 2 | [1] 6.2 | C.2 | [3] GAP 2/7c |
| 12 | 128-bit encryption key size capable (BR/EDR) | [1] 6.2 | C.2 | [3] GAP 2/13 |
| 13 | Derivation of BR/EDR Link Key from LE LTK | [1] 6.2 | C.10 | [3] GAP 43/2a |
| 14 | BR/EDR Secure Connections | [1] 6.2 | C.10 | N/A |
| 15 | LE Secure Connections (Peripheral) | [1] 6.1 | C.9 | [3] GAP 27b/5 |
| 16 | Out of Band (Peripheral) | [1] 6.1 | C.9 | [3] GAP 27b/9 |
| 17 | Out-of-Band (BR/EDR) | [1] 6.2 | C.10 | [3] GAP 2/14 |

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

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

C.3–C.4: No longer used.

C.5: Mandatory to support at least one IF CSIP 2/2 “Profile supported over LE”, otherwise not defined.



- C.6: Mandatory IF CSIP 6/6 “Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only” OR CSIP 6/7 “Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only”, otherwise not defined.
- C.7: Optional IF CSIP 2/2 “Profile supported over LE”, otherwise not defined.
- C.8: Optional IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise not defined.
- C.9: Mandatory to support at least one IF CSIP 2/2 “Profile supported over LE”, otherwise not defined.
- C.10: Mandatory to support at least one IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

2.4 Set Coordinator role

Table 8: Set Coordinator, X.Y Versions

Prerequisite: CSIP 1/2 “Set Coordinator”

| Item | Version | Reference | Status |
|------|-----------|-----------|----------|
| 1 | CSIP 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 2025-02-01. Withdrawn 2027-02-01.

Table 9: Set Coordinator, X.Y.Z Versions

Prerequisite: CSIP 1/2 “Set Coordinator”

| Item | Version | Reference | Status |
|------|----------------|-----------|--------|
| 1 | No longer used | N/A | N/A |
| 2 | CSIP v1.0.1 | [1] | C.1 |

- C.1: Mandatory IF CSIP 8/1 “CSIP v1.0”, otherwise Excluded.

2.4.1 Services Support – Set Coordinator role

Table 10: Service Support

Prerequisite: CSIP 1/2 “Set Coordinator”

| Item | Feature | Reference | Status |
|------|---|-----------|--------|
| 1 | Discover Coordinated Set Identification Service | [1] 4.2 | M |

Table 11: Characteristic Support Requirements

Prerequisite: CSIP 10/1 “Discover Coordinated Set Identification Service”

| Item | Capability | Reference | Status |
|------|---|-----------|--------|
| 1 | Set Identity Resolving Key Characteristic | [1] 4.3 | M |
| 2 | Coordinated Set Size Characteristic | [1] 4.3 | M |
| 3 | Set Member Lock Characteristic | [1] 4.3 | M |
| 4 | Set Member Rank Characteristic | [1] 4.3 | M |

Table 12: Procedure Support Requirements*Prerequisite: CSIP 10/1 "Discover Coordinated Set Identification Service"*

| Item | Capability | Reference | Status |
|------|---------------------------|-----------|--------|
| 1 | Coordinated Set Discovery | [1] 4.6.1 | M |
| 2 | Set Members Discovery | [1] 4.6.2 | M |
| 3 | Lock Request | [1] 4.6.3 | M |
| 4 | Lock Release | [1] 4.6.4 | M |
| 5 | Ordered Access | [1] 4.6.5 | M |

2.4.2 GATT requirements

Table 13: Set Coordinator GATT Requirements*Prerequisite: CSIP 1/2 "Set Coordinator"*

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|------|---|-----------|--------|------------------------|
| 1 | Discover All Primary Services | [1] 4.1 | C.1 | [2] GATT 3/2 |
| 2 | Discover Primary Services by Service UUID | [1] 4.1 | C.1 | [2] GATT 3/3 |
| 3 | Find Included Services | [1] 4.1 | M | [2] GATT 3/4 |
| 4 | Discover All Characteristics of a Service | [1] 4.1 | C.2 | [2] GATT 3/5 |
| 5 | Discover Characteristics by UUID | [1] 4.1 | C.2 | [2] GATT 3/6 |
| 6 | Discover All Characteristic Descriptors | [1] 4.1 | M | [2] GATT 3/7 |
| 7 | Read Characteristic Value | [1] 4.1 | M | [2] GATT 3/8 |
| 8 | Write Characteristic Value | [1] 4.1 | M | [2] GATT 3/14 |
| 9 | Single Notification | [1] 4.1 | O | [2] GATT 3/17 |
| 10 | Read Characteristic Descriptors | [1] 4.1 | M | [2] GATT 3/19 |
| 11 | Write Characteristic Descriptors | [1] 4.1 | C.3 | [2] GATT 3/21 |
| 12 | GATT Client over LE | [1] 4.1 | C.4 | [2] GATT 1a/1 |
| 13 | GATT Client over BR/EDR | [1] 4.1 | C.5 | [2] GATT 1a/2 |

C.1: Mandatory to support at least one.

C.2: Mandatory to support at least one.

C.3: Mandatory IF CSIP 13/9 "Single Notification", otherwise not defined.

C.4: Mandatory IF CSIP 2/2 "Profile supported over LE", otherwise not defined.

C.5: Mandatory IF CSIP 2/1 "Profile supported over BR/EDR", otherwise not defined.

2.4.3 GAP requirements

Table 14: GAP Requirements – Set Coordinator Role

Prerequisite: CSIP 1/2 “Set Coordinator”

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|------|--|-----------|--------|-------------------------|
| 1 | Bondable mode (BR/EDR) | [1] 7.1 | C.1 | [3] GAP 1/7 |
| 2 | Central | [1] 2.4.1 | C.2 | [3] GAP 38/4 OR GAP 5/4 |
| 3 | LE security mode 1 | [1] 6.2 | C.2 | [3] GAP 35/1 |
| 4 | Bondable mode (LE) | [1] 6.2 | C.4 | [3] GAP 34/2 |
| 5 | Bonding procedure | [1] 6.2 | C.4 | [3] GAP 34/3 |
| 6 | Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only | [1] 6 | C.4 | [3] GAP 35/11 |
| 7 | Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only | [1] 6 | C.4 | [3] GAP 35/12 |
| 8 | LE security mode 1 level 4 | [1] 6 | C.4 | [3] GAP 35/9 |
| 9 | Minimum 128 Bit entropy key (LE) | [1] 6.1 | C.7 | [3] GAP 35/13 |
| 10 | Derivation of LE LTK from BR/EDR Link Key | [1] 6.1 | C.8 | [3] GAP 41/2b |
| 11 | Security mode 4, level 2 | [1] 6.2 | C.3 | [3] GAP 2/7c |
| 12 | 128-bit encryption key size capable (BR/EDR) | [1] 6.2 | C.3 | [3] GAP 2/13 |
| 13 | Derivation of BR/EDR Link Key from LE LTK | [1] 6.2 | C.9 | [3] GAP 41/2a |
| 14 | BR/EDR Secure Connections | [1] 6.2 | C.9 | N/A |
| 15 | LE Secure Connections (Central) | [1] 6.1 | C.8 | [3] GAP 37b/5 |
| 16 | Out of Band (Central) | [1] 6.1 | C.8 | [3] GAP 37b/9 |
| 17 | Out-of-Band (BR/EDR) | [1] 6.2 | C.9 | [3] GAP 2/14 |

C.1: Optional IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

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

C.3: Mandatory IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

C.4: Optional IF CSIP 2/2 “Profile supported over LE”, otherwise not defined.

C.5–C.6: No longer used.

C.7: Mandatory IF CSIP 14/6 “Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only” OR CSIP 14/7 “Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only”, otherwise not defined.

C.8: Mandatory to support at least one IF CSIP 2/2 “Profile supported over LE”, otherwise not defined.

C.9: Mandatory to support at least one IF CSIP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

3 References

- [1] Coordinated Set Identification Profile Specification, Version 1.0 or later
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] ICS Proforma for Generic Access Profile (GAP)
- [4] ICS Proforma for Coordinated Set Identification Service (CSIS)

4 Revision history and acknowledgments

Revision History

| Publication Number | Revision Number | Date | Comments |
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| 0 | p0 | 2021-03-30 | Approved by BTI on 2021-02-25. CSIP v1.0 adopted by the BoD on 2021-03-23. Prepared for publication. |
| | p1r00–r02 | 2021-09-16 – 2021-09-22 | TSE 14792 (rating 4): Added ICS items for Expedited Erratum 17455 to Tables 4 and 9 and updated references. Editorials to address BTI comments and consistency checker findings. |
| 1 | p1 | 2021-10-12 | Approved by BTI on 2021-09-28. Expedited Erratum 17455 adopted by the BoD on 2021-10-05. Prepared for publication. |
| | p2r00–r05 | 2022-02-15 – 2022-06-10 | TSE 18159 (rating 2): Updated C.1 in Table 1. Performed template-related formatting fixes. Updated copyright page to align with v2 of the DNMD. TSE 18996 (rating 1): Modified Versions tables globally to account for v1.0.1 and associated deprecation and withdrawal. Affected tables are: Tables 3, 4, 8, and 9. Updated CSIP reference with “or later”. |
| 2 | p2 | 2022-06-28 | Approved by BTI on 2022-06-20. CSIP v1.0.1 adopted by the BoD on 2022-06-21. Prepared for TCRL 2022-1 publication. |
| | p2ed2r00 | 2022-08-04 | TSE 19319 (rating 1): Removed D&W information that was prematurely added during the .Z release until the dates are formally approved by the BoD. |
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| | p2ed3r00 | 2023-02-15 | TSE 22615 (rating 1): Replaced ILD references to Security Manager 8/1 with references to SM 8a/1 (for Central role) or SM 8b/1 (for Peripheral role) in Tables 7 and 15. Updated the heading for Section 1.5.2. Editorials to align the document with the latest ICS template. Deleted draft revision history comments prior to p0. |
| | p2 edition 3 | 2023-03-15 | Approved by BTI on 2023-03-13. Prepared for edition 3 publication. |
| | p3r00–r02 | 2023-08-25 – 2023-11-28 | TSE 23343 (rating 2): To resolve GAP/SM ILDs, removed the SM ICS from the References section and deleted the SM Requirements tables (Tables 7 and 15). Updated the Status for 6/3 – 6/10 and 6/13, and added 6/11a, 6/11b, and 6/14 – 6/19, with updated C.3 and C.4, deleted previous C.5 and C.6, and new C.5 – C.12. Updated the Feature description for 10/1. Updated the Status for 14/6, 14/9, 14/10, and 14/13, and added 14/11a, 14/11b, and 14/14 – 14/19, with updated C.5 and C.6, deleted previous C.7, and new C.8 – C.13. |

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| | p4r00–r04 | 2024-10-28 – 2024-12-13 | TSE 25422 (rating 2): Added Items 12 and 13 and conditionals C.4 and C.5 to Table 13. TSE 26365 (rating 1): Updated Item 1 and added conditionals C.1 and C.2 for Tables 3 and 8. Updated Items 1 and 2 and C.1 for Tables 4 and 9. |
| 4 | p4 | 2025-02-18 | Approved by BTI on 2025-02-09. Prepared for TCRL 2025-1 publication. |

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