

# Reconnection Configuration Profile (RCP)

## **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 Versions

**Table 0: X.Y Versions**

Item	Version	Reference	Status
1	RCP 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 2023-02-01. Withdrawn 2025-02-01.

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

Item	Version	Reference	Status
1	RCP v1.0.1	[5]	C.1

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

### 2.2 Roles

**Table 1: Role Requirements**

Item	Roles	Reference	Status
1	Reconnection Configuration Server	[1] 2	C.1
2	Reconnection Configuration Client	[1] 2	C.1

C.1: Mandatory to support at least one.

### 2.3 Transports

**Table 2: Transport Requirements**

Item	Transport	Reference	Status
1	Profile supported over LE	[1] 2.5	M
2	Profile supported over BR/EDR	[1] 2.5	C.1

C.1: Excluded for this Profile.

### 2.4 Reconnection Configuration Server role

#### 2.4.1 Required Services

**Table 3: Server Role, Required Services**

*Prerequisite: RCP 1/1 "Reconnection Configuration Server"*

Item	Version	Reference	Status	Inter-Layer Dependency
1	Reconnection Configuration Service	[1] 3	M	[2] RCS
2	Bond Management Service	[1] 3	C.1	[4] BMS

C.1: Mandatory IF RCS 4/14 "Upgrade to LESC Only" OR RCS 4/15 "Next Pairing OOB", otherwise Optional.

## 2.5 Reconnection Configuration Client role

### 2.5.1 Service Discovery

**Table 4: Client Role, Service Discovery**

*Prerequisite: RCP 1/2 "Reconnection Configuration Client"*

Item	Capability	Reference	Status
1	Reconnection Configuration Service Discovery	[1] 4.2.1	M
2	Bond Management Service Discovery	[1] 4.2.2	C.1

C.1: Mandatory IF RCP 6/16 "Upgrade to LESC Only" OR RCP 6/17 "Next Pairing OOB", otherwise Optional.

### 2.5.2 Characteristic Discovery

**Table 5: Client Role, Characteristic Discovery**

*Prerequisite: RCP 1/2 "Reconnection Configuration Client"*

Item	Capability	Reference	Status
1	Discover RC Feature characteristic	[1] 4.3.1.1	M
1a	Discover RC Feature characteristic and Client Characteristic Configuration descriptor	[5] 4.3.1.1	M
2	Discover RC Settings characteristic	[1] 4.3.1.2	M
3	Discover RC Settings characteristic - Client Characteristic Configuration descriptor	[1] 4.3.1.2	M
4	Discover RCCP characteristic	[1] 4.3.1.3	M
5	Discover RCCP - Client Characteristic Configuration descriptor	[1] 4.3.1.3	M
6	Discover Bond Management Control Point characteristic	[1] 4.3.2.1	C.1
7	Discover Bond Management Feature characteristic	[1] 4.3.2.2	C.1
7a	Discover Bond Management Feature characteristic and Client Characteristic Configuration descriptor	[5] 4.3.2.2	C.1

C.1: Mandatory IF RCP 4/2 "Bond Management Service Discovery", otherwise Excluded.

### 2.5.3 RC Feature Characteristic Behavior

**Table 6: Client Role, RC Feature Characteristic Behavior**

*Prerequisite: RCP 1/2 "Reconnection Configuration Client"*

Item	Capability	Reference	Status
1	Read the RC Feature characteristic	[1] 4.4	M
2	E2E-CRC	[1] 4.4	O
3	Enable Disconnect	[1] 4.4	O
4	Ready for Disconnect	[1] 4.4	O
5	Propose Reconnection Timeout	[1] 4.4	O
6	Propose Connection Interval	[1] 4.4	O
7	Propose Peripheral Latency	[1] 4.4	O
8	Propose Supervision Timeout	[1] 4.4	O



Item	Capability	Reference	Status
9	Propose Advertisement Interval	[1] 4.4	O
10	Propose Advertisement Count	[1] 4.4	O
11	Propose Advertisement Repetition Time	[1] 4.4	O
12	Advertisement Configuration 1	[1] 4.4	O
13	Advertisement Configuration 2	[1] 4.4	O
14	Advertisement Configuration 3	[1] 4.4	O
15	Advertisement Configuration 4	[1] 4.4	O
16	Upgrade to LESC Only	[1] 4.4	O
17	Next Pairing OOB	[1] 4.4	O
18	Use of Filter Accept List	[1] 4.4	O
19	Limited Access	[1] 4.4	O
20	Configure characteristic for indications to determine supported features	[5] 4.4	M

**Table 6a: Determining Supported Features - Configure Characteristic for Indications**

*Prerequisite: RCP 6/20 "Configure characteristic for indications to determine supported features"*

Item	Capability	Reference	Status
1	Configure and receive RC Feature characteristic indications	[5] 4.4	C.1
2	Read RC Feature characteristic on reconnection	[5] 4.4	C.1
3	Configure and receive Bond Management Feature characteristic indications	[5] 4.7.5	C.2
4	Read Bond Management Feature characteristic on reconnection	[5] 4.7.5	C.2

C.1: Mandatory to support at least one IF RCP 4/2 "Bond Management Service Discovery", otherwise Excluded.

C.2: Mandatory to support at least one IF RCP 4/2 "Bond Management Service Discovery", otherwise Excluded.

## 2.5.4 RC Settings Characteristic Behavior

**Table 7: Client Role, RC Settings Characteristic Behavior**

*Prerequisite: RCP 1/2 "Reconnection Configuration Client"*

Item	Capability	Reference	Status
1	Configure RC Settings for notifications	[1] 4.1, 4.5	C.1
2	Read the RC Settings characteristic	[1] 4.1, 4.5	M

C.1: Mandatory IF RCP 6/4 "Ready for Disconnect", otherwise Optional.

## 2.5.5 RCCP Characteristic Behavior

**Table 8: Client Role, RCCP Characteristic Behavior**

*Prerequisite: RCP 1/2 "Reconnection Configuration Client"*

Item	Capability	Reference	Status
1	Configure RCCP for indications	[1] 4.6	C.1
2	Enable Disconnect Procedure	[1] 4.6, 4.6.1	C.2
3	Get Actual Communication Parameters Procedure	[1] 4.6, 4.6.2	C.3
4	Propose Settings Procedure - Group A Only Changes	[1] 4.6, 4.6.3, 4.6.3.1	C.3
5	Propose Settings Procedure - Group B Only Changes	[1] 4.6, 4.6.3, 4.6.3.2	C.3
6	Activate Stored Settings Procedure	[1] 4.6, 4.6.4	C.3
7	Get Max Values Procedure and Communication Parameter Response	[1] 4.6, 4.6.5	C.4
8	Get Min Values Procedure and Communication Parameter Response	[1] 4.6, 4.6.6	C.4
9	Get Stored Settings Procedure and Communication Parameter Response	[1] 4.6, 4.6.7	C.3
10	Set Filter Accept List Timer Procedure	[1] 4.6, 4.6.8	C.5
11	Get Filter Accept List Timer Procedure and Filter Accept List Timer Response	[1] 4.6, 4.6.9	C.5
12	Set Advertisement Configuration Procedure	[1] 4.6, 4.6.10	C.6
13	Upgrade to LESC Only Procedure	[1] 4.6, 4.6.11	C.7
14	Switch OOB Pairing Procedure	[1] 4.6, 4.6.12	C.8
15	Set Limited Access Procedure	[1] 4.6, 4.6.13	C.9
16	Procedure Response	[1] 4.6	C.1
17	Client Parameter Indication	[1] 4.6, 4.6.2, 4.6.3.2	M

- C.1: Mandatory IF RCP 8/2 "Enable Disconnect Procedure" OR RCP 8/3 "Get Actual Communication Parameters Procedure" OR RCP 8/4 "Propose Settings Procedure - Group A Only Changes" OR RCP 8/5 "Propose Settings Procedure - Group B Only Changes" OR RCP 8/6 "Activate Stored Settings Procedure" OR RCP 8/7 "Get Max Values Procedure and Communication Parameter Response" OR RCP 8/8 "Get Min Values Procedure and Communication Parameter Response" OR RCP 8/9 "Get Stored Settings Procedure and Communication Parameter Response" OR RCP 8/10 "Set Filter Accept List Timer Procedure" OR RCP 8/11 "Get Filter Accept List Timer Procedure and Filter Accept List Timer Response" OR RCP 8/12 "Set Advertisement Configuration Procedure" OR RCP 8/13 "Upgrade to LESC Only Procedure" OR RCP 8/14 "Switch OOB Pairing Procedure" OR RCP 8/15 "Set Limited Access Procedure", otherwise Excluded.
- C.2: Mandatory IF RCP 6/3 "Enable Disconnect", otherwise Excluded.
- C.3: Mandatory IF RCP 6/5 "Propose Reconnection Timeout" OR RCP 6/6 "Propose Connection Interval" OR RCP 6/7 "Propose Peripheral Latency" OR RCP 6/8 "Propose Supervision Timeout" OR RCP 6/9 "Propose Advertisement Interval" OR RCP 6/10 "Propose Advertisement Count" OR RCP 6/11 "Propose Advertisement Repetition Time", otherwise Excluded.
- C.4: Optional IF RCP 6/5 "Propose Reconnection Timeout" OR RCP 6/6 "Propose Connection Interval" OR RCP 6/7 "Propose Peripheral Latency" OR RCP 6/8 "Propose Supervision Timeout" OR RCP 6/9 "Propose Advertisement Interval" OR RCP 6/10 "Propose Advertisement Count" OR RCP 6/11 "Propose Advertisement Repetition Time", otherwise Excluded.
- C.5: Mandatory IF RCP 6/18 "Use of Filter Accept List", otherwise Excluded.



- C.6: Mandatory IF RCP 6/12 “Advertisement Configuration 1” OR RCP 6/13 “Advertisement Configuration 2” OR RCP 6/14 “Advertisement Configuration 3” OR RCP 6/15 “Advertisement Configuration 4”, otherwise Excluded.
- C.7: Mandatory IF RCP 6/16 “Upgrade to LESC Only”, otherwise Excluded.
- C.8: Mandatory IF RCP 6/17 “Next Pairing OOB”, otherwise Excluded.
- C.9: Mandatory IF RCP 6/19 “Limited Access”, otherwise Excluded.

## 2.5.6 Bond Management Service Characteristics Behavior

**Table 9: Client Role, Bond Management Service Characteristics Behavior**

*Prerequisite: RCP 4/2 “Bond Management Service Discovery”*

Item	Capability	Reference	Status
1	Bond Management Control Point	[1] 4, 4.3.2.1, 4.7	M
2	Bond Management Feature	[1] 4, 4.3.2.2, 4.7	M
3	Read Bond Management Feature characteristic values.	[1] 4.7	M
4	Delete Bond of Requesting Device Procedures	[1] 4.7.1	M
5	Delete all Bonds Procedures	[1] 4.7.2	M
6	Bond Management Control Point Error Handling	[1] 4.7.4	M

## 2.5.7 GATT requirements

**Table 10: Client Role, GATT Requirements**

*Prerequisite: RCP 1/2 “Reconnection Configuration Client”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Discover All Primary Services	[1] 4.1, 4.2.1	C.1	[3] GATT 3/2
2	Discover Primary Services by Service UUID	[1] 4.1, 4.2.1	C.1	[3] GATT 3/3
3	Discover All Characteristics of a Service	[1] 4.1, 4.3.1	C.2	[3] GATT 3/5
4	Discover Characteristics by UUID	[1] 4.1, 4.3.1	C.2	[3] GATT 3/6
5	Discover All Characteristic Descriptors	[1] 4.1, 4.3.1	M	[3] GATT 3/7
6	Single Notification	[1] 4.1	C.3	[3] GATT 3/17
7	Indications	[1] 4.1	C.4	[3] GATT 3/18
8	Read Characteristic Value	[1] 4.1	M	[3] GATT 3/8
9	Write Characteristic Value	[1] 4.1	M	[3] GATT 3/14
10	Characteristic Value Reliable Writes	[1] 4.1	C.5	[3] GATT 3/16
11	Write Long Characteristic Values	[1] 4.1	C.5	[3] GATT 3/15
12	Read Characteristic Descriptors	[1] 4.1	M	[3] GATT 3/19
13	Write Characteristic Descriptors	[1] 4.1	M	[3] GATT 3/21
14	GATT Client over LE	[1] 4.1	M	[3] GATT 1a/1

- C.1: Mandatory to support at least one.



- C.2: Mandatory to support at least one.
- C.3: Mandatory IF RCP 6/4 “Ready for Disconnect”, otherwise Optional.
- C.4: Mandatory IF RCP 8/1 “Configure RCCP for indications”, otherwise Optional.
- C.5: Mandatory IF RCP 6/16 “Upgrade to LESC Only” OR RCP 6/17 “Next Pairing OOB”, otherwise Optional.

## 2.5.8 GAP requirements

**Table 11: Client Role, GAP Requirements**

*Prerequisite: RCP 1/2 “Reconnection Configuration Client”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	LE security mode 1	[1] 6.2	M	[6] GAP 25/1 OR GAP 35/1
2	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.2	M	[6] GAP 25/8 OR GAP 35/8
3	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.2	M	[6] GAP 25/7 OR GAP 35/7
4	LE security mode 1 level 4	[1] 6.2	M	[6] GAP 25/9 OR GAP 35/9

## 3 References

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- [1] Reconnection Configuration Profile Specification, Version 1.0 or later
- [2] ICS Proforma for Reconnection Configuration Service (RCS)
- [3] ICS Proforma for Generic Attribute Profile (GATT)
- [4] ICS Proforma for Bond Management Service (BMS)
- [5] Reconnection Configuration Profile Specification, Version 1.0.1
- [6] ICS Proforma for Generic Access Profile (GAP)

## 4 Revision history and acknowledgments

### Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2017-12-05	Adopted by the Bluetooth SIG Board of Directors.
	p1r00–r09	2021-02-21 – 2021-12-23	<p>TSE 16860 (rating 4): Updated C.1 in Table 0. Added new Table 0a for RCP v1.0.1. Added new Table 6a and added new items RCP 5/1a, RCP 5/7a, RCP 6/20 and related conditionals for E16487 - proper handling of changing supported features by characteristic indication.</p> <p>TSE 18077 (rating 1): Changes from E15809. Replaced text in the capability description of items 6/7, 6/18, 8/10, 8/11, and any affected conditionals with the Appropriate Language updates.</p> <p>TSE 18078 (rating 2): Corrected C.1 in Table 3 to use RCS 4/14 and RCS 4/15.</p> <p>Performed editorial work, including updating to the latest ICS template, making consistency checker fixes, and aligning the copyright page with v2 of the DNMD.</p>
1	p1	2022-01-25	Approved by BTI on 2022-01-06. Prepared for TCRL 2021-2 publication.
	p2r00–r01	2023-10-09 – 2023-12-06	<p>TSE 23677 (rating 2): Resolved GATT 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). Updated C.1 for Tables 0a and 1. In Table 5, updated the Status value for Item 1a, updated C.1, and deleted C.2 and C.3. In Table 6, updated the Status value for Item 20 and deleted C.1. Updated C.1 and C.2 for Table 6a. In Table 10, added Item 14 and updated C.1–C.5.</p> <p>Made editorial edits to align the document with the latest ICS template, including updates to table titles and removal of “is supported” language in conditionals. Deleted draft revision history comments prior to p0.</p>
2	p2	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p3r00–r01	2025-01-29 – 2025-02-18	TSE 26833 (rating 2): Updated Table 0 conditional C.2. Updated “GATT requirements” section title and Table 10 title and item 6. Added “GAP requirements” section including Table 11. Added a reference to “References” section.
3	p3	2025-07-08	Approved by BTI on 2025-06-15. Prepared for TCRL pkg100 publication.

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