

# Weight Scale Profile (WSP)

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

---

- **Revision:** WSP.ICS.p7
- **Revision Date:** 2024-10-08
- **Prepared By:** BTI
- **Published during TCRL:** TCRL.2024-2-addition



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](http://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 © 2013–2024 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

<b>1</b>	<b>Identification of the implementation .....</b>	<b>4</b>
1.1	Implementation Under Test (IUT) identification .....	4
1.2	Versions .....	5
1.3	Roles .....	5
1.4	Transports .....	5
1.5	Weight Scale Role .....	6
1.5.1	Services – Weight Scale Role.....	6
1.5.2	Features – Weight Scale Role .....	6
1.5.3	GAP requirements – Weight Scale Role .....	7
1.5.4	DIS requirements – Weight Scale Role.....	7
1.6	Collector Role .....	8
1.6.1	Service Support – Collector Role .....	8
1.6.2	Discover Services and Characteristics – Collector Role .....	8
1.6.3	Features – Collector Role .....	9
1.6.4	GATT requirements – Collector Role .....	11
1.6.5	GAP requirements – Collector Role .....	12
<b>2</b>	<b>References .....</b>	<b>13</b>
<b>3</b>	<b>Revision history and acknowledgments .....</b>	<b>14</b>

# 1 Identification of the implementation

---

## 1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

## 1.2 Versions

**Table 0: X.Y Versions**

Item	Version	Reference	Status
1	WSP v1.0	[1]	M

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

Item	Version	Reference	Status
1	WSP v1.0.1	[10]	O

**Table 1: No longer used**

## 1.3 Roles

**Table 2: Role Requirements**

Item	Role	Reference	Status
1	Weight Scale	[1] 2.1	C.1
2	Collector	[1] 2.1	C.1

C.1: Mandatory to support at least one.

## 1.4 Transports

**Table 3: 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.

## 1.5 Weight Scale Role

### 1.5.1 Services – Weight Scale Role

**Table 4: Service Requirements – Weight Scale Role**

*Prerequisite: WSP 2/1 “Weight Scale”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Weight Scale Service	[1] 3	M	[2] WSS
2	Weight Scale Service UUID in AD Type field of Advertising Data	[1] 3.1.1	C.1	N/A
3	Local Name included in Advertising Data	[1] 3.1.2	C.2	N/A
4	Local Name included in Scan Response Data	[1] 3.1.2	C.2	N/A
5	Appearance included in Advertising Data	[1] 3.1.4	C.3	N/A
6	Appearance included in Scan Response Data	[1] 3.1.4	C.3	N/A
7	Service Data in Advertising Data Feature	[1] 3.1.5, 5.1.4	C.1	N/A
8	Device Information Service	[1] 3, 3.4	M	[6] DIS
9	Battery Service	[1] 3	O	[8] BAS
10	Body Composition Service	[1] 3, 3.3	O	[3] BCS
11	Current Time Service	[1] 3	O	[9] CTS
12	User Data Service	[1] 3, 3.5	C.4	[6] UDS
13	Low Duty Cycle Directed Advertising	[1] 5.1.2	C.1	N/A
14	LE Privacy Feature	[1] 3.1.2	O	N/A
15	Writable Device Name	[1] 3.1.3	O	N/A

C.1: Optional IF WSP 3/2 “Profile supported over LE”, otherwise Excluded.

C.2: Optional to support one and only one IF WSP 3/2 “Profile supported over LE”, otherwise Excluded.

C.3: Optional to support one and only one IF WSP 3/2 “Profile supported over LE”, otherwise Excluded.

C.4: Mandatory IF WSP 5/2 “Multiple Users Supported”, otherwise Optional.

### 1.5.2 Features – Weight Scale Role

**Table 5: Feature Requirements**

*Prerequisite: WSP 2/1 “Weight Scale”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Stored Measurements	[1] 3	O	[2] WSS 3/1
2	Multiple Users Supported	[1] 3	O	[2] WSS 3/2
2a	Multiple Users – Concurrent Access	[1] 3.3	C.1	N/A
3	Time Stamp Feature	[1] 3.2.1	O	N/A

C.1: Optional IF WSP 5/2 “Multiple Users Supported”, otherwise Excluded.



### 1.5.3 GAP requirements – Weight Scale Role

**Table 6: GAP Requirements – Weight Scale Role**

*Prerequisite: WSP 2/1 “Weight Scale”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4	M	[5] GAP 5/3 OR GAP 38/3
2	LE security mode 1	[1] 6.1	C.1	[5] GAP 25/1
3	General discoverable mode (BR/EDR)	[1] 7.1	C.2	[5] GAP 1/3
4	Limited discoverable mode (BR/EDR)	[1] 7.1	C.2	[5] GAP 1/2
5	Bondable mode (LE)	[1] 3.2, 3.3, 5.1	C.3	[5] GAP 24/2
6	Bonding procedure	[1] 3.2, 3.3, 5.1	C.5	[5] GAP 24/3
7	Bondable mode (BR/EDR)	[1] 3.2, 3.3, 5.1, 7.1	C.6	[5] GAP 1/7
8	Unauthenticated no MITM protection	[1] 6.1	C.4	[5] GAP 27b/3
9	Authenticated MITM protection	[1] 6.1	C.4	[5] GAP 27b/2

C.1: Mandatory IF WSP 3/2 “Profile supported over LE”, otherwise not defined.

C.2: Mandatory to support at least one IF WSP 3/1 “Profile supported over BR/EDR”, otherwise not defined.

C.3: Mandatory IF WSP 6/6 “Bonding procedure”, otherwise Optional.

C.4: Mandatory to support at least one IF WSP 3/2 “Profile supported over LE”. otherwise not defined.

C.5: Optional IF WSP 3/2 “Profile supported over LE”, otherwise not defined.

C.6: Optional IF WSP 3/1 “Profile supported over BR/EDR”, otherwise not defined.

**Table 7: No longer used**

### 1.5.4 DIS requirements – Weight Scale Role

**Table 8: DIS Requirements – Weight Scale Role**

*Prerequisite: WSP 2/1 “Weight Scale”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Manufacturer Name String Characteristic	[1] 3.4	M	[7] DIS 2/2
2	Model Number String Characteristic	[1] 3.4	M	[7] DIS 2/3
3	System ID Characteristic	[1] 3.4	C.1	[7] DIS 2/8
4	Compliance with IEEE 11073-20601	[1] 3.4	O	N/A

C.1: Mandatory IF WSP 8/4 “Compliance with IEEE 11073-20601”, otherwise Optional.

## 1.6 Collector Role

### 1.6.1 Service Support – Collector Role

**Table 9: Service Support – Collector Role**

*Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status
1	Discover Weight Scale Service	[1] 4	M
2	Discover Device Information Service	[1] 4	O
3	Discover Battery Service	[1] 4	O
4	Discover Body Composition Service	[1] 4, 4.2	O
5	Discover Current Time Service	[1] 4	O
6	Discover User Data Service	[1] 4	M
7	Service Data in Advertising Data Feature	[1] 5.1.4, 5.2.2	O

### 1.6.2 Discover Services and Characteristics – Collector Role

**Table 10: Discover Weight Scale Service and Characteristics – Collector Role**

*Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status
1	Discover Weight Measurement characteristic	[1] 4.3.1, 4.4.2	M
2	Discover Weight Measurement characteristic – Client Configuration Characteristic Descriptor	[1] 4.3.1, 4.4.2	M
3	Discover Weight Scale Feature characteristic	[1] 4.3.1, 4.4.1	M
4	Discover Weight Scale Feature characteristic – Client Configuration Characteristic Descriptor	[10] 4.4.1	C.1

C.1: Optional IF WSP 0/1 “WSP v1.0” AND NOT WSP 0a/1 “WSP v1.0.1”, otherwise Mandatory.

**Table 11: Discover Body Composition Service and Characteristics – Collector Role**

*Prerequisite: WSP 2/2 “Collector” AND WSP 9/4 “Discover Body Composition Service”*

Item	Capability	Reference	Status
1	Discover Body Composition Measurement characteristic	[1] 4.3.2, 4.5.2	M
2	Discover Body Composition Measurement characteristic – Client Configuration Characteristic Descriptor	[1] 4.3.2, 4.5.2	M
3	Discover Body Composition Feature characteristic	[1] 4.3.2, 4.5.1	M



**Table 12: Discover User Data Service and Characteristics – Collector Role***Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status
1	Discover User Index characteristic	[1] 4.3.3, 4.6.1	M
2	Discover Database Change Increment characteristic	[1] 4.3.3, 4.6.2	C.1
3	Discover Database Change Increment characteristic – Client Configuration Characteristic Descriptor	[1] 4.3.3, 4.6.2	C.1
4	Discover User Data Control Point characteristic	[1] 4.3.3, 4.6.3	M
5	Discover User Data Control Point characteristic – Client Configuration Characteristic Descriptor	[1] 4.3.3, 4.6.3	M
6	Discover Other UDS Characteristics	[1] 4.3.3, 4.6.4	C.2

C.1: Mandatory IF WSP 15/1 “Writing of UDS Characteristic values”, otherwise Optional.

C.2: Mandatory IF WSP 15/10 “Read UDS Characteristics” OR WSP 15/1 “Writing of UDS Characteristic values”, otherwise Optional.

### 1.6.3 Features – Collector Role

**Table 13: Weight Scale Service Procedure Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status
1	Read Weight Scale Feature characteristic	[1] 4.4.1	M
2	Read Weight Measurement characteristic	[1] 4.4.2	M
3	Configure Weight Measurement characteristic - Client Characteristic Configuration Descriptor	[1] 4.4.2	M
4	Receive Weight Measurement characteristic indications	[1] 4.4.2	M
5	Configure characteristic for indications to determine supported features	[10] 4.4.1	C.1

C.1: Optional IF WSP 0/1 “WSP v1.0” AND NOT WSP 0a/1 “WSP v1.0.1”, otherwise Mandatory.

**Table 13a: Determining Supported Features – Configure Characteristic for Indications***Prerequisite: WSP 13/5 “Configure characteristic for indications to determine supported features”*

Item	Capability	Reference	Status
1	Configure and receive Weight Scale Feature characteristic indications	[10] 4.4.1	C.1
2	Read Weight Scale Feature characteristic on reconnection	[10] 4.4.1	C.1

C.1: Mandatory to support at least one.

**Table 14: Body Composition Service Procedure Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector” AND WSP 9/4 “Discover Body Composition Service”*

Item	Capability	Reference	Status
1	Read Body Composition Feature characteristic	[1] 4.5.1	M
2	Read Body Composition Measurement characteristic	[1] 4.5.2	M
3	Configure Body Composition Measurement characteristic - Client Characteristic Configuration Descriptor	[1] 4.5.2	M
4	Receive Body Composition Measurement characteristic indications	[1] 4.5.2	M
5	Receive Continuation Packet indications	[1] 4.5.2	M

**Table 15: User Data Service Procedure Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status
1	Writing of UDS Characteristic values	[1] 4.3.3, 4.6, 4.6.4	O
2	Configure Database Change Increment - Client Characteristic Configuration Descriptor	[1] 4.6.2	C.1
3	Receive Database Change Increment notifications	[1] 4.6.2	C.1
4	Read Database Change Increment characteristic	[1] 4.6.2	C.1
5	Write Database Change Increment characteristic	[1] 4.6.2	C.1
6	User Data Synchronization Feature	[1] 4.6.2	C.2
7	User Control Point	[1] 4.6.3	M
8	User Index	[1] 4.6.1	M
9	Caching of Consent Code	[1] 4.6.3.2.1	O
10	Read UDS Characteristics	[1] 4.6.4	O
11	Read Long UDS Characteristics	[1] 4.6.4	O
12	Write Long UDS Characteristics	[1] 4.6.4	O

C.1: Mandatory IF WSP 15/6 “User Data Synchronization Feature”, otherwise Optional.

C.2: Mandatory IF WSP 15/1 “Writing of UDS Characteristic values”, otherwise Optional.

**Table 16: Battery Service Procedure Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector” AND WSP 9/3 “Discover Battery Service”*

Item	Capability	Reference	Status
1	Read Battery Level characteristic	[1] 4.8	O
2	Receive Battery Level characteristic notifications	[1] 4.8	O

**Table 17: Current Time Service Procedure Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector” AND WSP 9/5 “Discover Current Time Service”*

Item	Capability	Reference	Status
1	Read Current Time characteristic	[1] 4.9	O
2	Write Current Time characteristic	[1] 4.9	O
3	Configure Current Time Characteristic - Client Characteristic Configuration Descriptor	[1] 4.9	O
4	Receive Current Time characteristic notifications	[1] 4.9	O

#### 1.6.4 GATT requirements – Collector Role

**Table 18: GATT Requirements – Collector Role***Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
2	GATT Client over BR/EDR	[1] 4.2	C.1	[4] GATT 1a/2
3	GATT Client over LE	[1] 4.2	C.2	[4] GATT 1a/1
4	Discover All Primary Services	[1] 4.2	C.3	[4] GATT 3/2
5	Discover Primary Services by Service UUID	[1] 4.2	C.3	[4] GATT 3/3
6	Discover All Characteristics of a Service	[1] 4.3	C.4	[4] GATT 3/5
7	Discover Characteristics by UUID	[1] 4.3	C.4	[4] GATT 3/6
8	Discover All Characteristic Descriptors	[1] 4.3	M	[4] GATT 3/7
9	Read Characteristic Value	[1] 4.1	M	[4] GATT 3/8
10	Notifications	[1] 4.8	C.5	[4] GATT 3/17
11	Write Characteristic Value	[1] 4.1	M	[4] GATT 3/14
12	Read Characteristic Descriptors	[1] 4.1, 4.4.2, 4.5.2, 4.6.3, 4.8, 4.9	M	[4] GATT 3/19
13	Write Characteristic Descriptors	[1] 4.1, 4.4.2, 4.5.2, 4.6.3, 4.8, 4.9	M	[4] GATT 3/21
14	Find Included Services	[1] 4.1, 4.2	C.6	[4] GATT 3/4
15	Indications	[1] 4.4.2, 4.5.2, 4.6.3	M	[4] GATT 3/18
16	Read Long Characteristic Values	[1] 4.1	C.7	[4] GATT 3/10
17	Write Long Characteristic Values	[1] 4.1	C.8	[4] GATT 3/15

C.1: Mandatory IF WSP 3/1 “Profile supported over BR/EDR”, otherwise Optional.

C.2: Mandatory IF WSP 3/2 “Profile supported over LE”, otherwise Optional.

C.3: Mandatory to support at least one.

C.4: Mandatory to support at least one.



- C.5: Mandatory IF WSP 16/2 “Receive Battery Level characteristic notifications” OR WSP 17/4 “Receive Current Time characteristic notifications” OR WSP 15/3 “Receive Database Change Increment notifications”, otherwise Optional.
- C.6: Mandatory IF WSP 9/4 “Discover Body Composition Service”, otherwise Optional.
- C.7: Mandatory IF WSP 15/11 “Read Long UDS Characteristics”, otherwise Optional.
- C.8: Mandatory IF WSP 15/12 “Write Long UDS Characteristics”, otherwise Optional.

### 1.6.5 GAP requirements – Collector Role

**Table 19: GAP Requirements – Collector Role**

*Prerequisite: WSP 2/2 “Collector”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Central	[1] 2.4	M	[5] GAP 5/4 OR GAP 38/4
2	LE security mode 1	[1] 6.2	C.1	[5] GAP 35/1
3	Initiation of general inquiry	[1] 7.2	C.2	[5] GAP 3/1
4	Bondable mode (LE)	[1] 6.2	C.1	[5] GAP 34/2
5	Bonding procedure	[1] 6.2, 7.1	C.1	[5] GAP 34/3
6	Bondable mode (BR/EDR)	[1] 6.2, 7.1	C.2	[5] GAP 1/7
7	Unauthenticated no MITM protection	[1] 6.2	C.1	[5] GAP 37b/3
8	Authenticated MITM protection	[1] 6.2	C.1	[5] GAP 37b/2

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

**Table 20: No longer used**

## 2 References

---

- [1] Weight Scale Profile Specification, Version 1.0 or later
- [2] ICS Proforma for Weight Scale Service (WSS)
- [3] ICS Proforma for Body Composition Service (BCS)
- [4] ICS Proforma for Generic Attribute Profile (GATT)
- [5] ICS Proforma for Generic Access Profile (GAP)
- [6] ICS Proforma for User Data Service (UDS)
- [7] ICS Proforma for Device Information Service (DIS)
- [8] ICS Proforma for Battery Service (BAS)
- [9] ICS Proforma for Current Time Service (CTS)
- [10] Weight Scale Profile Specification, Version 1.0.1

### 3 Revision history and acknowledgments

#### Revision History

Publication Number	Revision Number	Date	Comments
0	1.0.0	2014-10-21	Publication
	1.0.1r00	2015-05-10	TSE 6324: Corrected status of item 15/2 from M to C.1.
	1.0.1r01	2015-06-04	Deleted Section 1.2 (Global Statement of Conformance) per current ICS template standards.
	1.0.1r02	2015-06-07	Reviewed by Alicia Courtney. Converted to current document template.
1	1.0.1	2015-07-14	Prepared for TCRL 2015-1 publication
	1.0.2r00	2015-10-01	TSE 6482: Corrected C.5 conditional in Table 18, Section 1.6.4.
2	1.0.2	2015-12-22	Prepared for TCRL 2015-2 publication.
	1.0.3r00	2017-04-26	TSE 8394: Updated Table 5: Feature Requirements with item 2 reference update, row added for item 2a, and added C.1 conditional.
3	1.0.3	2017-06-26	Approved by BTI. Prepared for TCRL 2017-1 publication.
	p4r00	2021-08-11	TSE 17321 (rating 2): Updated rules for Table 4, C.2 and C.3; added item 4 to Table 8; added ILD entry to Table 5, item 2; corrected references in C.2 of Table 12 and C.7 and C.8 of Table 18; corrected reference to nonexistent GAP item in item 4 of Table 19. Template-related and consistency checker editorials. Updated copyright page to align with v2 of the DNMD.
4	p4	2022-01-25	Approved by BTI on 2022-01-06. Prepared for TCRL 2021-2 publication.
	p5r00–r01	2022-03-16 – 2022-05-05	TSE 18727 (rating 1): Editorials to align the document with the latest ICS template in anticipation of a future .Z release.
5	p5	2022-06-28	Approved by BTI on 2022-05-31. Prepared for TCRL 2022-1 publication.
	p6r00	2023-10-10	TSE 23178 (rating 2): Resolved GAP and SM inter-layer dependencies. Updated C.1 for Tables 2 and 3. Updated C.2 and C.3 for Table 4. In Table 6, added Items 8 and 9, updated C.2, and added C.4. Marked Tables 7 and 20 as no longer used. In Table 9, updated the Capability value for Items 1–6. Updated the prerequisite for Tables 11, 14, 16, and 17. In Table 18, marked Item 1 as no longer used, updated the Capability and ILD values for Items 2 and 3, and updated C.3, C.4, and C.6. Added Items 7 and 8 to Table 19. Updated the references. Made editorial edits to align the document with the latest ICS template, including updates to section and table titles and spacing. Deleted draft revision history comments prior to p0.

Publication Number	Revision Number	Date	Comments
6	p6	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p7r00–r01	2024-07-30 – 2024-08-22	TSE 17246 (rating 4): Per E17172, added Tables 0a and 13a. In Table 10, added Item 10/4 and conditional C.1. In Table 13, added Item 13/5 and conditional C.1. Updated the references list. TSE 25595 (rating 1): Per E15813, E17172, and E18759, added new version table (Table 0a) for WSP v1.0.1. Updated the references list and the acknowledgments.
7	p7	2024-10-08	Approved by BTI on 2024-09-11. WSP v1.0.1 adopted by the BoD on 2024-10-01. Prepared for TCRL 2024-2-addition publication.

### Acknowledgments

Name	Company
Elvis Pfützenreuter	A&D
Dejan Berec	Bluetooth SIG, Inc.
Jawid Mirani	Bluetooth SIG, Inc.
Laurence Richardson	Cambridge Silicon Radio
Tatsuo Arai	CASIO
Robert D. Hughes	Intel
Guillaume Schatz	Polar