# Public Broadcast Profile (PBP)

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

- **Revision:** PBP.ICS.p0
- **Revision Date:** 2022-07-12
- **Group Prepared By:** Audio, Telephony, and Automotive Working Group

## Contents

# 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 Roles

**Table 1: Role Requirements**

| Item | Role | Reference | Status |
|---|---|---|---|
| 1 | Public Broadcast Source | [2] 2.1 | C.1 |
| 2 | Public Broadcast Sink | [2] 2.1 | C.1 |
| 3 | Public Broadcast Assistant | [2] 2.1 | C.1 |

C.1: Mandatory to support at least one of PBP 1/1 “Public Broadcast Source” OR PBP 1/2 “Public Broadcast Sink” OR PBP 1/3 “Public Broadcast Assistant”.

## 1.3 Transports

**Table 2: Transport Requirements**

| Item | Transport | Reference | Status |
|---|---|---|---|
| 1 | Profile supported over BR/EDR | [2] 2.3 | C.1 |
| 2 | Profile supported over LE | [2] 2.3 | M |

C.1: Excluded for this Profile.

## 1.4 Public Broadcast Source Role

**Table 3: Major Versions (X.Y)**

*Prerequisite: PBP 1/1 “Public Broadcast Source”*

| Item | Version | Reference | Status |
|---|---|---|---|
| 1 | Public Broadcast Profile v1.0 | [2] | M |

**Table 4: Minor Versions (X.Y.Z)**

**Table number reserved but not yet in use.**

### 1.4.1 Public Broadcast Source Role Features

**Table 5: Public Broadcast Source Role – Support Requirements**

*Prerequisite: PBP 1/1 “Public Broadcast Source”*

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 1 | Initiator | [2] 3.1.1 | M | [4] CAP 1/2 |
| 2 | BAP Broadcast Source | [2] 2.1 | M | [4] CAP 16/2 |

**Table 6: Public Broadcast Source Role – Features**

*Prerequisite: PBP 1/1 “Public Broadcast Source”*

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 1 | Transmit Program_Info Metadata | [2] 3.1.2 | O | N/A |

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 2 | BAP Broadcast Audio Stream Metadata Update | [2] 3.1.2 | C.1 | [3] BAP 51/1 |
| 3 | Public Broadcast Announcement | [2] 4 | M | N/A |
| 4 | Standard Quality Public Broadcast Audio | [2] 4.1 | M | N/A |
| 5 | High Quality Public Broadcast Audio | [2] 4.2 | O | N/A |
| 6 | Encrypted Broadcast Isochronous Stream | [2] 4 | C.2 | [3] BAP 61/6 |
| 7 | Unencrypted Broadcast Isochronous Stream | [2] 4 | C.2 | [3] BAP 61/5 |
| 8 | Broadcast Name AD Type | [2] 5 | M | N/A |

C.1: Mandatory IF PBP 6/1 “Transmit Program_Info Metadata”, otherwise not defined.

C.2: Mandatory to support at least one of PBP 6/6 “Encrypted Broadcast Isochronous Stream” OR PBP 6/7 “Unencrypted Broadcast Isochronous Stream”.

**Table 7: Standard Quality Public Broadcast Audio Configuration Support Requirements**

*Prerequisite: PBP 6/4 “Standard Quality Public Broadcast Audio”*

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| **Low Latency** | | | | |
| 1 | 16_2_1 LC3 – 10000 SDU Interval, unframed, 40 Max SDU Size, 2 RTN, 10 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 55/4 |
| 2 | 24_2_1 LC3 – 10000 SDU Interval, unframed, 60 Max SDU Size, 2 RTN, 10 Max_Transport_Latency | [2] 4.2 | O | [3] BAP 55/6 |
| **High Reliability** | | | | |
| 3 | 16_2_2 LC3 – 10000 SDU Interval, unframed, 40 Max SDU Size, 4 RTN, 60 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 56/4 |
| 4 | 24_2_2 LC3 – 10000 SDU Interval, unframed, 60 Max SDU Size, 4 RTN, 60 Max_Transport_Latency | [2] 4.2 | O | [3] BAP 56/6 |

**Table 8: High Quality Public Broadcast Audio Configuration Support Requirements**

*Prerequisite: PBP 6/5 “High Quality Public Broadcast Audio”*

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| **Low Latency** | | | | |
| 1 | 48_1_1 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/11 |
| 2 | 48_2_1 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/12 |

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 3 | 48_3_1 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/13 |
| 4 | 48_4_1 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/14 |
| 5 | 48_5_1 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/15 |
| 6 | 48_6_1 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 55/16 |
| **High Reliability** | | | | |
| 7 | 48_1_2 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/11 |
| 8 | 48_2_2 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/12 |
| 9 | 48_3_2 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/13 |
| 10 | 48_4_2 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/14 |
| 11 | 48_5_2 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/15 |
| 12 | 48_6_2 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 56/16 |

C.1: Mandatory to support at least one of PBP 8/1 “48_1_1 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 8/2 “48_2_1 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 8/3 “48_3_1 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 8/4 “48_4_1 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 8/5 “48_5_1 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 8/6 “48_6_1 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 8/7 “48_1_2 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 8/8 “48_2_2 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 65 Max_Transport_Latency” OR PBP 8/9 “48_3_2 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 8/10 “48_4_2 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 65 Max_Transport_Latency” OR PBP 8/11 “48_5_2 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 8/12 “48_6_2 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 65 Max_Transport_Latency”.

## 1.5 Public Broadcast Sink Role

**Table 9: Major Versions (X.Y)**

*Prerequisite: PBP 1/2 "Public Broadcast Sink"*

| Item | Version | Reference | Status |
|---|---|---|---|
| 1 | Public Broadcast Profile v1.0 | [2] | M |

**Table 10: Minor Versions (X.Y.Z)**

**Table number reserved but not yet in use.**

### 1.5.1 Public Broadcast Sink Role Features

**Table 11: Public Broadcast Sink Role – Support Requirements**

*Prerequisite: PBP 1/2 "Public Broadcast Sink"*

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 1 | Acceptor | [2] 3.2.1 | M | [4] CAP 1/1 |
| 2 | BAP Broadcast Sink | [2] 3.2.1 | M | [4] CAP 6/3 |

**Table 12: Public Broadcast Sink Role – Features**

*Prerequisite: PBP 1/2 "Public Broadcast Sink"*

| Item | Capability | Reference | Status |
|---|---|---|---|
| 1 | Standard Quality Public Broadcast Audio | [2] 4.1 | M |
| 2 | High Quality Public Broadcast Audio | [2] 4.2 | O |

**Table 13: Standard Quality Public Broadcast Audio configuration support requirements**

*Prerequisite: PBP 12/1 "Standard Quality Public Broadcast Audio"*

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| **Low Latency** | | | | |
| 1 | 16_2_1 LC3 – 10000 SDU Interval, unframed, 40 Max SDU Size, 2 RTN, 10 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 69/4 |
| 2 | 24_2_1 LC3 – 10000 SDU Interval, unframed, 60 Max SDU Size, 2 RTN, 10 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 69/6 |
| **High Reliability** | | | | |
| 3 | 16_2_2 LC3 – 10000 SDU Interval, unframed, 40 Max SDU Size, 4 RTN, 60 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 70/4 |

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 4 | 24_2_2 LC3 – 10000 SDU Interval, unframed, 60 Max SDU Size, 4 RTN, 60 Max_Transport_Latency | [2] 4.2 | M | [3] BAP 70/6 |

**Table 14: High Quality Public Broadcast Audio Configuration Support Requirements**

*Prerequisite: PBP 12/2 "High Quality Public Broadcast Audio"*

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| **Low Latency** | | | | |
| 1 | 48_1_1 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/11 |
| 2 | 48_2_1 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/12 |
| 3 | 48_3_1 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/13 |
| 4 | 48_4_1 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/14 |
| 5 | 48_5_1 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 15 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/15 |
| 6 | 48_6_1 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 20 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 69/16 |
| **High Reliability** | | | | |
| 7 | 48_1_2 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/11 |
| 8 | 48_2_2 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/12 |
| 9 | 48_3_2 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/13 |
| 10 | 48_4_2 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/14 |
| 11 | 48_5_2 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 50 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/15 |

| Item | Settings | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 12 | 48_6_2 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 65 Max_Transport_Latency | [2] 4.3 | C.1 | [3] BAP 70/16 |

C.1: Mandatory to support at least one of PBP 14/1 “48_1_1 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 14/2 “48_2_1 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 14/3 “48_3_1 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 14/4 “48_4_1 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 14/5 “48_5_1 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 15 Max_Transport_Latency” OR PBP 14/6 “48_6_1 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 20 Max_Transport_Latency” OR PBP 14/7 “48_1_2 LC3 – 7500 SDU Interval, unframed, 75 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 14/8 “48_2_2 LC3 – 10000 SDU Interval, unframed, 100 Max SDU Size, 4 RTN, 65 Max_Transport_Latency” OR PBP 14/9 “48_3_2 LC3 – 7500 SDU Interval, unframed, 90 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 14/10 “48_4_2 LC3 – 10000 SDU Interval, unframed, 120 Max SDU Size, 4 RTN, 65 Max_Transport_Latency” OR PBP 14/11 “48_5_2 LC3 – 7500 SDU Interval, unframed, 117 Max SDU Size, 4 RTN, 50 Max_Transport_Latency” OR PBP 14/12 “48_6_2 LC3 – 10000 SDU Interval, unframed, 155 Max SDU Size, 4 RTN, 65 Max_Transport_Latency”.

## 1.6 Public Broadcast Assistant Role

**Table 15: Major Versions (X.Y)**

*Prerequisite: PBP 1/3 “Public Broadcast Assistant”*

| Item | Version | Reference | Status |
|---|---|---|---|
| 1 | Public Broadcast Profile v1.0 | [2] | M |

**Table 16: Minor Versions (X.Y.Z)**

**Table number reserved but not yet in use.**

### 1.6.1 Public Broadcast Assistant Role Features

**Table 17: Public Broadcast Assistant Role – Support Requirements**

*Prerequisite: PBP 1/3 “Public Broadcast Assistant”*

| Item | Capability | Reference | Status | Inter-Layer Dependency |
|---|---|---|---|---|
| 1 | Commander | [2] 3.3.1 | M | [4] CAP 1/3 |
| 2 | BAP Broadcast Assistant | [2] 3.3.1 | M | [4] CAP 26/2 |

# 2 References

[1] Bluetooth Core Specification, Version 5.2 or later

[2] Public Broadcast Profile Specification, Version 1.0

[3] ICS Proforma for Basic Audio Profile (BAP.ICS)

[4] ICS Proforma for Common Audio Profile (CAP.ICS)

# 3 Revision history and acknowledgments

***Revision History***

| Publication Number | Revision Number | Date | Comments |
|---|---|---|---|
| 0 | p0 | 2022-07-12 | Approved by BTI on 2022-07-03. PBP v1.0 adopted by the BoD on 2022-07-05. Prepared for initial publication. |

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