

HDT PHY for LE Audio

Bluetooth® CR

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This CR proposes changes to the following specification (“Source Specification”):

- Audio Stream Control Service v1.0.1

Abstract:

This document specifies changes to the Audio Stream Control Service (ASCS) v1.0.1 specification required to add the LE Higher Data Throughput (LE HDT) physical layer (PHY) feature as a selectable PHY.

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1 Language

1.1 Language conventions

Refer to and follow any terminology, language conventions, and interpretation sections of the Source Specification.

2 Conventions used in this specification

The formatting and color conventions described in Table 2.1 below are used in the CR to describe the specific changes and additions that are proposed to the Source Specification(s) identified on the cover page.

Text Color	Description
black	Text that is unmodified from the Source Specification. Note: The text of the Source Specification may not be black and may contain tracked changes or other colored text that are reflected as black text in this document.
red	Text that is added to the Source Specification.
red strikethrough	Text that is deleted from the Source Specification.
[green bracketed text]	Comments that explain the changes made to the Source Specification.
[...]	Indicates the section of the Source Specification that includes additional text that is not included in black text.
blue	Default color used for section numbers and headings of this document.

Table 2.1: Color key for headings, captions, and body text

3 Changes to Source Specification

This Section sets forth the specific changes and additions, using the formatting and color conventions described in Section 2, that are proposed to the Source Specification.

3.1 Changes to ASCS v1.0.1

3.1.1 [Modified Section] 4.1 Audio Stream Endpoints

[Modify row in Table 4.3: *Additional_ASE_Parameters format when ASE_State = 0x01 (Codec Configured)* as shown.]

Field	Size (Octets)	Description
Preferred_PHY	1	Server preferred value for the PHY parameter to be written by the client for this ASE in the Config QoS operation defined in Section 5.2 Formatted as a bitfield 0b00000001: LE 1M PHY preferred 0b00000010: LE 2M PHY preferred 0b00000100: LE Coded PHY preferred 0b00010000: LE HDT PHY preferred The server may set multiple bits in the Preferred_PHY bitfield The server shall not set a bit to 1 for an unsupported PHY in the Preferred_PHY bitfield A value of 0x00 denotes no preference All other bits: RFU

3.1.2 [Modified Section] 4.1 Audio Stream Endpoints

[Modify row in Table 4.4: *Additional_ASE_Parameters format when ASE_State = 0x02 (QoS Configured)* as shown.]

Field	Size (Octets)	Description
PHY	1	PHY parameter value for this ASE written by the client in the Config QoS operation defined in Section 5.2 0b00000001: LE 1M PHY 0b00000010: LE 2M PHY

Field	Size (Octets)	Description
		0b00000100: LE Coded PHY 0b00010000: LE HDT PHY All other bits: RFU

3.1.3 [Modified Section] 5.1 Config Codec operation

[Modify row in Table 5.2: Config Codec operation format as shown.]

Parameter	Size (Octets)	Description
Target_PHY[i]	1	PHY parameter target to achieve the Target_Latency value 0x01: LE 1M PHY 0x02: LE 2M PHY 0x03: LE Coded PHY 0x05: LE HDT PHY

3.1.4 [Modified Section] 5.2 Config QoS operation

[Modify row in Table 5.3: Config QoS operation format as shown.]

Parameter	Size (Octets)	Description
PHY[i]	1	PHY parameter value written by the client for this ASE (if HCI is used, written by using the LE Set CIG Parameters command defined in Volume 4, Part E, Section 7.8.97 in [1]) 0b00000001 : LE 1M PHY 0b00000010: LE 2M PHY 0b00000100: LE Coded PHY 0b00010000: LE HDT PHY All other bits: RFU

References

[1] Audio Stream Control Service v1.0.1