Response to DCN-499 Rev1

Changes recommended are highlighted in Red

# Comment 8

Page NO. 97, Paragraph starting with line 20.

A Header Type, indicating the type of the DPP PDU:

1) The value 0 indicates it is a Management DPP PDU used to carry management messages mentioned below,

i) Association Messages, refer to Table 18-5 and Table 18-6.

ii) Measurement Report, refer to Table 18-7.

iii) Automatic PHS, refer to the set of tables from Table 18-8 to Table 18-10.

iv) TLS Message, refer to Table 18-12

All Management Messages shall use Robust MCS.

# Comment 10

Page No. 57, Paragraph starting with line 32

Transmission in the downlink direction employs OFDM with a single subcarrier per subchannel. FFT sizes shall be computed based on the equation given below, the maximum FFT size shall be 512. A subchannel bit map is used to turn off any unused subchannel.

# Comment 13

Page No. 62, Paragraph starting with line 4

Preamble and pilots will be modulated with the BPSK modulation, refer section 8.4.9.3.

# Comment 15 and 16

Page No. 99, Table 9-2

Replace Table 9-2 with the below table

|  |  |  |
| --- | --- | --- |
| 1. Syntax | Size(bits) | Notes |
| Sub-header () { | --- | ---- |
| Sub-header Type | 1 | 0: Packing 1: Fragmentation |
| Fragmentation state | 2 | Indicates the fragmentation state of the payload:  00 = No fragmentation  01 = Last fragment  10 = First fragment  11 = Continuing (middle) fragment |
| FSN | 8 | Sequence number of the current SDU fragment. The value shall be increased by one (modulo 256) for each fragment. |
| Length | 11 | 0 to 2047 Length in bytes of the SDU including the Sub-header. |
| Reserved | 2 |  |
| } |  |  |

# Comment 17

Page 100, Paragraph starting from line 12

For every burst transmission, the DPP SS shall transmit higher priority SDUs first, while lower priority SDUs may be left in the queue and transmitted in the next burst. An SDU shall be discarded when its Maximum Latency expires. DPP SS shall resume the transmission of fragmented SDUs paused due to the high priority traffic subject to the Maximum latency expiry.

# Comment 20

Page 103, Paragraph starting from line 12

The DPP SS shall be configurable to enable or disable RTS/CTS collision avoidance. When configured to enable RTS/CTS collision avoidance, the DPP SS shall transmit each CTRL-MSG indicating RTS with Control Message Type value of 1, as described in Table 18-4. Upon receiving the CTS in response to an RTS it sent, the DPP SS shall transmit the burst as per the CTS message received. CTS is CTRL-MSG with Control Message Type value of 2 described in Table 18-4. The DPP SS shall transmit all non-unicast messages e.g. RTS/CTS, with TX power configured using the parameter “MAX\_TX\_PWR\_Non\_Unicast\_MSGs”.

**Add “**MAX\_TX\_PWR\_Non\_Unicast\_MSGs” parameter to the table 18-11

|  |  |
| --- | --- |
| MAX\_TX\_PWR\_Non\_Unicast\_MSGs | Maximum TX power used for the Non-Unicast message transmissions. |

# Comment 31

Table 18-4

|  |  |  |
| --- | --- | --- |
| Syntax | Size(bits) | Notes |
| Control Message () { | --- | ---- |
| Control Message Type | 2 | This field indicates the type of CTRL MSG based on what description it is carrying.  Value 0: DPP PDU,  1: RTS  2: CTS  3: ACK |
| Relay Status | 1 | 0: Original transmission, 1: Relay Transmission |
| Relay Option | 2 | Value 0: Direct transmission only, No Relay  1: Relay  2: Relay based on ACK failure |
| Sender ID | 48 | MAC address of the Sender DPP SS |
| Receiver ID | 48 | MAC address Receiver DPP SS |
| If (control message Type == 1) { |  |  |
| Requested Bytes | 16 | Total bytes to transmit including DPP PDU and SDU overheads. |
| Reserved | 3 |  |
| } |  |  |
| ElseIf (control message Type == 3) { |  |  |
| ACK Bit Map | 16 | LSB applies to first DPP PDU and MSB to last. Bit value 1 indicates ACK. Maximum number of DPP PDUs in burst shall not exceed 16. |
| Reserved | 3 |  |
| } else { |  |  |
| MCS | 4 | MCS includes the Repetition. Refer Table 3. |
| ACKI | 1 | ACK Indication. 0: disabled, 1: enabled |
| Number of Slots | 12 | Number of slots requested (for RTS) or allocated (for CTS/PDU) post CTRL MSG. |
| Reserved | 1 |  |
| AUTHI | 1 | Authentication. 0: Disabled 1: Valid HMAC is present. |
| } |  |  |
| CRC | 8 | CRC for above bytes computed per 802.16 section 6.3.3.5 CRC calculation |
| If (AUTHI ==1) { |  |  |
| HMAC Digest | 256 | HMAC is a Message authentication code. This is calculated over CTRL-MSG and all PDUs in the burst, excluding the HMAC field. If AUTHI is 0 then this field is not transmitted, when AUTHI is set to 1 this will be present after the CRC. |
| } |  |  |
| } |  |  |

# Comment 33

Page 112, Paragraph starting from line 4

b) If configured to use encryption, the DPP SSs shall derive the encryption key, which is

the TLS Client Application Traffic secret, from the Master secret. The key shall be used

to encrypt and decrypt traffic from both sides. Encryption shall be performed only on

the DPP PDUs excluding the DPP PDU header and all management messages.

# Comment 34

**“Operational State Time Limit”** Is defined for exiting from the Operational state.