IEEE P802.11
Wireless LANs

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| Resolution to Comments : CID 72, 119, 128 |
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Abstract

This document presents suggested proposal towards CID 72, 119, 128

***Modify the following definition into 10.3.1 as highlighted in red texts:***

* STA authentication and association

***Discussion:***

CID 72, 119, 128 provide comments about spatial sharing mechanism in IEEE 802.11aj. This proposal is intended to address and resolve the comments with adoption/revision to the suggestions.

***Proposed Resolution:***

**8.4.2.1 General**

*Insert the new rows into Table 8-54 in numeric order:*

**Table 8-54—Element IDs**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Element ID | Length (in octets) | Extensible |
| SSW Report | ANA | 7 to 257 | Yes |

*Insert the following subclause:*

**8.4.2.162 SSW Report element**

The SSW Report element is used by a non-AP or non-PCP STA to report beamforming training information to AP or PCP (10.31.1). The format of the SSW Report element is asillustrated in Figure 8-401bp.



**Figure 8-401bp─SSW Report element format**

The Element ID field is equal to the value for the SSW Report, specified in Table 8-54.

The Length field for this element indicates the length of Information field.

The Report Info field is formatted as illustrated in Figure 8-401bq.



**Figure 8-401bq─Report field format**

The Initiator AID filed identifies the STA that is the initiator of the beamforming training.

The Responder AID filed identifies the STA that is the responder of the beamforming training.

The Sector Select field is as defined in 8.4a.3.

The DMG Antenna Select field is as defined in 8.4a.3.

The SNR Report field is as defined in 8.4a.3.

The IsInitiatorTXSS/IsResponderTXSS subfield is set to 1 to indicate that an initiator TXSS has been performed between the initiator and the responder. This subfield is set to 0 to indicate that a responder TXSS has been performed between the initiator and the responder.

**9.35.2.5 Sector Sweep ACK**

*Remove the changes in this subsection.*

**10.31.1 General**

*Insert the following paragraphs at the end of this subsection:*

AP or PCP may use the beamforming training information among any pair of STAs within the BSS obtained through the SSW Report information element (8.4.2.162) to achieve spatial sharing and interference mitigation. The AP or PCP can transmit an Information Request frame (8.5.20.4) addressed to a STA for a response with a SSW Report element (8.4.2.162) contained in an Information Response frame (8.5.20.5). A non-PCP/non-AP STA can also send an unsolicited Information Response frame with a SSW Report element after the STA has completed the beamforming procedure with at least another STA.

**10.31.3 Achieving spatial sharing and interference mitigation**

*Change paragraph 5 with the following paragraph:*

The decision process at the AP or PCP to perform spatial sharing of a candidate and an existing SP is implementation dependent and beyond the scope of this standard. A possible embodiment of such a decision process is described as follows.

*Insert the following paragraph after paragraph 5:*

AP or PCP may use the SSW Report information element to construct a beamforming training table. If any source STA involved in an existing SP does not employ the same transmit sector with the one that it employs to communicate with any other STA involved in a candidate SP, and vice versa, the PCP/AP may schedule this existing SP and the candidate SP time-overlapping with each other for spatial sharing. Furthermore, if a pair of existing SP and candidate SP satisfies the above condition, the larger the number of difference between any two of transmit sectors employed by a source STA to communicate with its destination STA and with any other STA involved in the other SP, the more the space to implement spatial sharing and interference mitigation among them.