IEEE P802.11
Wireless LANs

|  |
| --- |
| 802.11 TGad Proposed SB1 Resolutions for CID 6501, 6516 |
| Date: 2012-03-01 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Mark Hamilton | Polycom | 1765 West 121st Avenue Westminster, CO 80234 | 720-872-7445 | mark.hamilton@polycom.com |
|  |  |  |  |  |

Abstract

This document presents proposed resolutions to CIDs 6501 and 6516 on the 1st sponsor ballot of REVad.

# Comments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6501 | 4.9.3 | 50.13 | The architectural model of multiple MAC entities sharing one PHY (one example of MM-SME usage) seems to be a general enhancement to 802.11 (well beyond 11ad), for some specific usage scenarios (like desiring to have parallel associations with different security modes/levels). This is really quite independent of FST or even MM-SME concepts. The architectural change of multiple MAC entities sharing a single PHY (and the PHY-SAP changes to support this) should be pulled out into its own subclause of clause 4, introduced before the subclause that adds MM-SME as an additional feature for multiple MAC entity scenarios. | Pull out the architectural concept of multiple MAC entities sharing one PHY, and put into its own subclause of clause 4, ahead of 4.9.3. Specifically, create a diagram like Figure 4-16a (but without the MM-SME), pull out the last sentence of the first paragraph of 4.9.3, and the paragraph at lines 21-23 in 4.9.3, and make a new subclause with this source material. Also, modify the reference to 4.9.3 in the NOTE at p51.23 to reference the new subclause, and modify the changes in 9.19.2.5 to not be specific to MM-SME but rather to be general to a multiple MAC entities sharing one PHY architecture with or without MM-SME. |
| 6516 | 10.35 | 446.39 | The DBand Relay facility is an architectural addition to 802.11. This really needs discussion in Clause 4, and architectural pictures/concepts of REDS and RDS. In particular, this facility seems to be a similar, but alternative mechanism to Mesh, so the similarities and differences should be shown in Clause 4, and the appropriate application of each should be discussed there. | Add subclause(s) to Clause 4 describing the DBand Relay architecture. |

# Proposed Resolutions

**CID 6501** REJECT. Due to the multiplexed and shared usage of the PLME SAP, multiple MAC entities sharing a single PHY is only usable if there is coordination between the MAC entities. Such coordination is, by definition, done by an MM-SME and is described in the current text.

**CID 6516** REVISED. Add a new sub-clause, 4.3.18, as follows:

4.3.18 DBand Relay

The 802.11 DBand Relay function allows a source relay endpoint DBand STA (REDS) to transmit frames to a destination relay endpoint DBand STA with the assistance of another DBand STA, the relay DBand STA (RDS), as shown in Figure 4-xx. Relaying can improve the reliability of communication in the DBand, in case the direct link between the source REDS and the destination REDS has poor quality or is disrupted. Following the DBand Relay setup procedures, a source REDS can discover and select an appropriate RDS to act as the relay for a particular destination REDS, prior to data frame transmission using the relay. A relay operating as a link switching type relay uses the RDS to forward frames between the source and destination REDS if the direct link between the REDS is disrupted. In a link cooperating type relay operation, the RDS simultaneously repeats the transmission of frames between the source and destination REDS, which can possibly increase the signal quality received at the destination REDS.



Figure 4-xx