IEEE
Wireless LANs

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| CC9 Resolution for CIDs 219 317 |
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| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | STMicroelectronics |  |  | liwen.chu@st.com |
| James Wang | MediaTek |  |  | james.wang@mediatek.com |

Abstract

This document provides resolution for CIDs 219, 317

# 0 Revision Notes

R0: First draft

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| --- | --- | --- | --- |
| 219 | 9.32m.3.1 | In example given in Figure 9-44i, the OBSS AP or STA is not able to identify which AP the packet is from during the omni transmission. | Please correct the figure. |
| 317 | 9.32m | 1, SO TXOP as medium access optimization should be used for Type 1 and Type 0 devices (STAs and APs).2, In SO TXOP's omni-directional part, the AP's identification information should be included. Otherwise, oth STAs/APs can't figure out whether the transmission is from OBSS or not.3, OBSS's antenna usage should be defined for the simultaneous transmission with the sectorized transmission part of SO TXOP. | As proposed. |

**CID219**

***Discussion:***

The text in P154L35 of SO is that “SO condition is confirmed by an OBSS station or AP which observes the omni-transmission of the AP but not the beamformed transmission of the AP and not the station's transmission.” However with only one omni PPDU from the AP and nothing is detected from the AP, an OBSS STA/AP can’t get the conclusion that the AP can continue the TXOP. The reason is that the OBSS STA/AP can’t differentiate the scenario of figure 9-44i from the AP sending an omni-directional PPDU to a STA unsuccessfully. Apparently the second scenario is not for SO.

***Proposed Resolution:***

Revised. TGah editor to make changes shown in 11-13-0975-00-00ah-CC9 Resolution of CID 219 317 under the heading for CIDs 219.

**9.32m.3.1 Type 1 Sectorization operation**

*Editorial instruction: change Figure 9-44i as following:*

Sectorized Beam

Omni-Preamble

long packet

AP1

Omni packet

ACK or RSP

ACK or RSP

PS-Poll/Trigger/ Other Frame

NAV

STA1

NAV

Sectorized Beam

Omni-Preamble

short packet

short packet

AP1

Omni packet

ACK or RSP

NAV

ACK or RSP

PS-Poll/Trigger/ Other Frame

NAV

STA1

NAV

NAV

**Figure 9-44i**

*Editorial instruction: change Bullet d) as following:*

d) SO frame exchange sequence 4: A station starts with the omni-directional beam to establish a link with the AP. AP uses omni-transmission as the responding and to set up the protection for the duration of the remaining TXOP. Then the AP transmits the sectorized beam transmission (either an omni-preamble of a long preamble or an omni-transmission of a subsequent packet) and switches to the sectorized beam transmission. The AP continues with the sectorized beam transmission for the remainder of the protected duration. SO condition is confirmed by an OBSS station or AP which observes the omni-transmission of the AP but not the beamformed transmission of the AP and not the station's transmission. Note that in the first diagram in Figure 9-44i (SO frame exchange sequence 4), an OBSS station or OBSS AP infers its spatial orthogonality with the AP by observing the omni-preamble of the long preamble but not the subsequent sectorized beam transmission and with the station by observing a gap of no transmission before the AP response to PS-Poll or trigger frame from the station. Note that in the second diagram in Figure 9-44i (SO frame exchange sequence 4), an OBSS station or OBSS AP infers its spatial orthogonality with the AP by observing the omni-beam short packet from the AP but not observing the subsequent sector ized beam transmission and with the station by observing a gap of no transmission before the first omni-beam short packets by the AP.

**CID317**

***Discussion:***

Bullet 2 in CID 317: see comment 219.

Bullte 3 in CID 317: When an OBSS AP uses directional mode to sense the medium, apparently it can’t use omni-directional mode to transmit frames in the following SO TXOP.

802.11 allows TXOP holder to truncate the TXOP. In a SO TXOP, if the AP uses omni-directional CF-END to truncate TXOP, the CF-END may collide with the OBSS TXOP sharing transmission.

***Proposed Resolution:***

Revised.

The comment is already covered by CID 216, 218. See CID 216, 218.