IEEE P802.11
Wireless LANs

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| Resolution for CID 2725 |
| Date: 2010-01-20 |
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Abstract

This document solves the CID 2725.

**Comment:**

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| **CID** | **Comment / Explanation** | **Recommended Change** | **Resolution Code** | **Resolution Notes** |
| **2725** | **Sentence reads: "Group addressed frames with source address equal to the known portal address shall be the last transmitted group addressed frames." This rule is too restrctive. Enqueue policy should be left to implementation specific. Also, the benefit of this operation is unclear.** | **Remove "Group addressed frames with source address equal to the known portal address shall be the last transmitted group addressed frames."** | **Counter** | **The Annex X is appended to contain reasoning for the group addressed frames scheduling order and hints how to apply the scheme.**  |

* TIM types

There are two different TIM types: TIM and DTIM. A mesh STA shall transmit a TIM with every Beacon frame. Every DTIMPeriod, a TIM of type DTIM is transmitted with a Beacon frame. After a DTIM the mesh STA shall send the buffered group addressed MSDUs and MMPDUs, before transmitting any individually addressed frames. The More Data field of each group addressed frame shall be set to indicate the presence of further buffered group addressed MSDUs and MMPDUs. Group addressed frames with Address 3 equal to the known portal address shall be the last transmitted group addressed frames. The mesh STA sets the More Data field to 0 in the last transmitted group addressed frame following the transmission of the DTIM Beacon.

If CCA is IDLE for the duration of PHY specific Group Delivery Idle Time when a mesh STA expects to receive a group addressed frame, the receiving mesh STA may assume that no more frames destined to group addresses will be transmitted and return to Doze state. The Group Delivery Idle Time is identical to the TXOP Limit for AC\_VI specified by the default EDCA Parameter Set shown in Table 7-37.

***Note for the editor:***

***Insert the new clause X.4.3 and renumber the following clauses accordingly***

X.4.3 Reducing stand-by power consumption

When the amount of transmitted traffic is low, typically the most transmitted traffic is group addressed frames to maintain the IP-level connectivity, i.e. ARP or DHCP, or group addressed frames generated by the service discovery protocols or group addressed or individually addressed frames generated by applications to maintain the connectivity.

When an MBSS has a portal to connect the MBSS to the internet or to other network, the portal will forward traffic from the other network and operate as source for the most group addressed frames for the MBSS. It is likely that the most group addressed traffic will be forwarded from internet and the portal will be the main source of group addressed frames.

Each mesh STA will transmit once all the group addressed frames that it has received. Thus, one mesh STA may receive as many copies of the group addressed frames as it has peerings.

To reduce the reception of multiple copies of the group addressed transmissions, the frames which Address 3 equals to portal address are transmitted as the last group addressed frames. Thus, the mesh STA has means to coordinate group addressed frames reception and improve its power efficiency.

**References:**