IEEE P802.11
Wireless LANs

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| Revised Resolution for CID 8057  |
| Date: 2016-07-15 |
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Abstract

This submission proposes a revised resolution for CID 8057

Green indicates material agreed to in the group,

yellow material to be discussed, red material rejected by the group and

cyan material not to be overlooked.

The “Final” view should be selected in Word.

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| Identifiers | Comment | Proposed change |
| CID 8057Mark Rison11.2.2.61585.20 | "If the AP does not receive an acknowledgment to an individually addressed Data frame that requires acknowledgment and that is a non-A-MPDU frame containing all or part of an MSDU or A-MSDU sent with the EOSP subfield equal to 1, it shall retransmit that frame" -- this also needs to apply to an A-MPDU for which no (block)ack was received, since the AP does not know whether EOSP has been communicated to the STA | Delete "and that is a non-A-MPDU frame containing all or part of an MSDU or A-MSDU" from the cited text |

Discussion:

j) If the AP does not **receive an acknowledgment to an individually addressed Data frame** that requires acknowledgment and **that is a non-A-MPDU frame** containing all or part of an MSDU or A-MSDU sent **with the EOSP subfield equal to 1**, it shall retransmit that frame at least once within the same SP, subject to applicable retry or lifetime limit. The maximum number of retransmissions within the same SP is the lesser of the maximum retry limit and dot11QAPMissingAckRetryLimit. If the AP does not **receive an acknowledgment to an individually addressed Data frame** that requires acknowledgment and that is not the initial attempt in this SP to send a frame w**ith the EOSP subfield equal to 1,** it may retransmit that frame in the next SP, subject to applicable retry or lifetime limits. An AP that transmits an **A-MPDU containing Data frames in which the EOSP field is equal to 1** and that receives a BlockAck frame that does not acknowledge all of those MPDUs should not transmit any missed Data frames within the current service period because the destination STA might now be asleep.

The Resolution is
REVISED (MAC: 2016-07-08 14:52:12Z): At 1585.24 after "or lifetime limit." insert the following new sentence:

"If the AP does not receive a Block Ack in response to an A-MPDU that contains one or more individually addressed Data frames that require acknowledgment containing all or part of an MSDU or A-MSDU sent with the EOSP subfield equal to 1 it shall retransmit at least one of those frames at least once within the same SP, subject to applicable retry or lifetime limit."

Mark Rison noted the following in email (July 14):

* "frame" is missing after Block Ack
* "MSDU sent with the EOSP set to 1", which makes no sense (the MPDUs have this, not the MSDUs
* And “various other things”.

In exchange with Graham, Mark and Graham agreed to the opinion that there is no need to mention MSDUs or A-MSDUs, because:

* The EOSP is signalled in the MPDU
* A QoS Null frame is a data frame (see Table 9-1 P565).
* The case where the EOSP is signalled in the QoS Null frame is valid (indeed is common)
* If the QoS Null frame is not acknowledged it needs to be retried

**Proposed NEW Resolution**

**REVISED**

At 1585.24 after "or lifetime limit." insert the following new sentence:

“If the AP does not receive a Block Ack frame in response to an A-MPDU that contains one or more individually addressed Data frames that are sent with the EOSP subfield equal to 1, and that require acknowledgment, it shall retransmit at least one of those frames at least once within the same SP, subject to applicable retry or lifetime limits."

AND

At 1584.20

Replace

“If the AP does not receive an acknowledgment to an individually addressed Data frame that requires acknowledgment and that is a non-A-MPDU frame containing all or part of an MSDU or A-MSDU sent with the EOSP subfield equal to 1, it shall retransmit that frame at least once within the same SP, subject to applicable retry or lifetime limit.”

With

"If the AP does not receive an acknowledgment in response to a non-A-MPDU frame that is an individually addressed Data frame that is sent with the EOSP subfield equal to 1, and that requires acknowledgment, it shall retransmit that frame at least once within the same SP, subject to applicable retry or lifetime limits."