IEEE P802.11
Wireless LANs

|  |
| --- |
| REVmc Preballot Resolutions - CIDs 121-122-162-163-164-233-260-364  |
| Date: 2013-01-16 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Daniel Cohn | Lantiq | Zarhin 13, Ra’anana, Israel | +972 54 922 5104 | Daniel.cohn@lantiq.com |
|  |  |  |  |  |

Abstract

Resolutions to CIDs 121, 122, 162-164, 233, 260, 364

# CID 364

|  |  |  |
| --- | --- | --- |
| **CID** | **Page** | **Comment** |
| 364 | 1682.00 | Are "non-HT duplicate PPDU"s a type of "non-HT PPDU"? If so, then phrases like "In non-HT and non-HT duplicate formats" are confusing. If not, then the terminology itself is confusing |

**Proposed Resolution:**

Revised.

In addition to the problem highlighted by the comment, the use of packet and format in the same paragraph should be consistent.

Modify clause 20.3.2 as follows:

The HT-SIG, HT-STF, HT-GF-STF, HT-LTF1, and HT-LTFs exist only in HT packets. In non-HT packets ~~and non-HT duplicate~~ ~~formats~~ only the L-STF, L-LTF, L-SIG, and Data fields exist.

# CID 260

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 260 | The rules on rounding of PHY rates when they aren't an exact multiple of the unit used are not clear | Clarify |

**Proposed Resolution:**

Revised.

Add a note to tables 20-30 to 20-44 with the following text:

“NOTE: The data rate numbers are rounded to the first digit place purely for presentation purposes”.

# CID 233

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 233 | What is the basic rate set is null (i.e. no non-HT rates are advertised)? Can one assume the mandatory non-HT rates? For both DSSS and OFDM? | Clarify |

**Proposed Solution:**

Rejected.

No reason for the additional rule – the AP should just advertise the basic rates it supports.

# CID 164

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** | **Resolution** |
| 164 | What is a "QoS data frame" or "QoS data MPDU"? Does this refer to all frames of Type Data and Subtype 1000-1111, or all frames of Type Data and Subtype 1000-1011 (i.e. not QoS Null or immediate relatives), or all frames of Type Data and Subtype 1000 (i.e. not QoS Data + CF-anything)? How does it differ from a "QoS Data frame" or "QoS Data MPDU"? | Clarify this and then make sure the term has been used correctly throughout the spec | REJECTED (GEN: 2013-01-15 07:32:33Z) |

**Proposed Solution:**

Rejected.

The commenter doesn’t indicate specific changes that would satisfy his comment.

In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “QoS data frame” and “QoS data MPDU” would need to be reviewed to see if they are also applicable to “no data” subtypes.

# CID 163

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 163 | What is a "Data frame" or "Data MPDU"? Does this refer to all frames of Type Data, or all frames of Type Data and Subtype 0000-0011 (e.g. not QoS Data), or all frames of Type Data and Subtype 0000 (i.e. not Data + CF-anything)? How does it differ from a "data frame" or "data MPDU"? | Clarify this and then make sure the term has been used correctly throughout the spec |

**Proposed Solution:**

Rejected.

The commenter doesn’t indicate specific changes that would satisfy his comment.

In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “Data frame” and “Data MPDU” would need to be reviewed to see if they are also applicable to “no data” subtypes.

# CID 162

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 162 | What is a "data frame" or "data MPDU"? Does this refer to all frames of Type Data, or all frames of Type Data and Subtype 0000-0011 (e.g. not QoS Data), or all frames of Type Data and Subtype 0000 (i.e. not Data + CF-anything)? | Clarify this and then make sure the term has been used correctly throughout the spec |

**Proposed Solution:**

Rejected.

The commenter doesn’t indicate specific changes that would satisfy his comment.

In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “data frame” and “data MPDU” would need to be reviewed to see if they are also applicable to “no data” subtypes.

# CID 122

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 122 | It's not clear enough what the meaning of the PM bit in an MPDU for which this bit is reserved is. Is it "must be 0 on tx and therefore indicates active mode" or is it "must be 0 on tx and must be ignored on rx such that the power management mode is unchanged"? | Make it clear |

**Proposed Solution:**

Rejected.

Clause 8.2.2 already defines this by specifying: “Reserved fields and subfields are set to 0 upon transmission and are ignored upon reception”

# CID 121

|  |  |  |
| --- | --- | --- |
| **CID** | **Comment** | **Proposed Change** |
| 121 | It's not clear enough which Control MPDUs have non-reserved PM bits and when. Note for example that 8.2.4.1.7 implies the PM bit in ACKs sent by a non-AP STA are not reserved | Make it clear |

**Proposed Solution:**

Revised.

10.2.1.1 states:

“A STA shall remain in its current Power Management mode until it informs the AP of a Power Management mode change via a frame exchange that includes an acknowledgment from the AP”

From which it can be derived that the PM field should be reserved in frame exchanges other than this (i.e. without AP ACK). However 8.2.4.1.7 does not consider this case in its set of rules, which results in problematic behavior when only these rules are considered.

According to 8.2.4.1.7, the station may not change the PM bit in a frame exchange sequence. Therefore for a STA in power save mode, it should set the bit to zero when ACKing a data frame received from the AP (as the AP set it to zero in the date frame). And, since the bit is not reserved, the AP should interpret it as the STA leaving power mode even if this was not the STA’s intention.

The proposed solution adds the missing rule to 8.2.4.17.

Modify text 8.2.4.1.7 as follows:

— The Power Management field is reserved in all management frames that are not bufferable

management frames.

— The Power Management field is reserved in all management frames transmitted by a STA to an AP

with which it is not associated.

— The Power Management field is reserved in all frames transmitted by the AP.

— The Power Management field is reserved in all frames within a frame exchange sequence involving an AP (see annex G) that does not include an acknowledgment sent by the AP

— Otherwise, a value of 1 indicates that the STA will be in PS mode. A value of 0 indicates that the

STA will be in active mode.

Note: The proposed solution was discussed and the group decided to resolve this CID together with other PM-related CIDs included in 13/1199.