IEEE P802.11
Wireless LANs

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| Comment Resolution of Nominal Packet Padding Definition |
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Abstract: This document addresses the following CID:

 *CIDs* *15659*

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| 15659 | 27.12 | 358.23 | "....uses the combination of the PPET8 NSTSn RUb subfield and PPET16 NSTSn RUb subfield values to determine Nominal Packet Padding (consisting of both post-FEC padding and packet extension)..."--For example, if "Nominal Packet Padding" in Table 27-12 is zero according to PPE thresholds, when pre-FEC padding factor equals to 1~3, the post FEC padding "duration" is still non-zero, so "Nominal Packet Padding" should not be zero? PPE thresholds only determines the maximum nominal TPE (when pre-FEC padding factor equals to 4), and it has nothing to do with post-FEC padding. As defined in clause 28, post-FEC padding is only determined by the pre-FEC padding factor ("a-factor"). We should not correlate PPE thresholds with post-FEC padding. | Change the definition of the new terminlogy "Norminal Packet Padding" to "(maximum Nominal Packet Extension duration (TPE) when pre-FEC padding factor equals to 4)". | **Revised.**Change to as in doc IEEE802.11-17/xxxxr0. |

Discussions:

It is true that Nominal Packet Padding introduced in this clause is just a value used to compute the nominal packet extension duration (TPE) in clause 28.3.12 (Packet Extension), mixing the definition of Nominal Packet Padding with the “duration” of post-FEC padding may cause confusions as indicated by the commenter, because the “duration of post-FEC padding is solely determined by pre-FEC padding factor instead of the PPE thresholds, and this “duration” is always non-zero if pre-FEC padding factor is not 4. As a result, with the current definition, the Nominal Packet Padding value is also always non-zero if pre-FEC padding factor is not 4, therefore conflicts with the statements in this clause.

Propose to remove the definition of Nominal Packet Padding, and decouple it from post FEC padding.

TGax editor: please make the following change in clause 27.12 P358~P359 of D3.0:

**27.12 HE PPDU post FEC padding and packet extension**

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After receiving the PPE Thresholds field from a second STA, the first STA uses the combination of the PPET8 NSTS*n* RU*b* subfield and PPET16 NSTS*n* RU*b* subfield values to determine the Nominal Packet Padding ~~(consisting of both post-FEC padding and packet extension)~~ value for HE PPDUs that are transmit-ted to the second STA using NSTS = *n* and an RU allocation corresponding to RU Allocation Index b, for each value of NSTS and RU specified by the field. The Nominal Packet Padding value is used in computing the packet extension duration (see 28.3.12 (Packet Extension)).

NOTE—When Pre-FEC padding factor is 4, the value of nominal *TPE* is equal to Nominal Packet Padding value (see Table 28-43).

For all values of *n* and *b* for which PPET8 and PPET16 are not present, the Nominal Packet Padding value is 0 for HE PPDUs that are transmitted to the STA using NSTS = *n* and an RU allocation corresponding to RU allocation index *b*. The decision of PPE threshold is described in Table 27-12 (PPE thresholds per PPET8 and PPET16).

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A STA transmitting an HE PPDU to a receiving STA shall include a ~~minimum~~ post-FEC padding as determined by the ~~post-FEC padding~~ pre-FEC padding factor (see 28.3.11 (Data field)) and after including the post-FEC padding, the transmitting STA shall include a packet extension ~~that yields a total post-FEC padding plus packet extension that corresponds to at least the value indicated in the HE Capabilities element received from the receiving STA~~ with a duration according to the TXVECTOR parameter NOMINAL\_PACKET\_PADDING (see 28.3.12 (Packet extension)).