IEEE P802.11
Wireless LANs

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| Spec text for HE NDP |
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Abstract

This submission proposes the Spec Text for Transmission of an HE NDP.

* The proposed change is based on TGax Draft 0.5.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGax Editor: Editing instructions preceded by “TGax Editor” are instructions to the TGax editor to modify existing material in the TGax draft. As a result of adopting the changes, the TGax editor will execute the instructions rather than copy them to the TGax Draft.***

**Discussion:**

TGax Draft 0.5 does not have clear explanation for HE NDP format and TXVECTOR parameter.

Revise the TGax Draft 0.5 as the following for the HE NPD format accroding to TGax Spec Framework document.

***TGax editor: insert the following new sub-clause 25.6.4 after 25.6.3:***

**25.6.4 Transmission of an HE NDP**

An HE NDP shall use the HE SU PPDU format as described in 26.1.4 (PPDU formats). An HE STA shall transmit an HE NDP using the following TXVECTOR parameters:

* APEP\_LENGTH set to 0
* HE\_LTF\_TYPE set to either 2x HE-LTF or 4x HE-LTF
* NUM\_STS indicates two or more space-time streams
* CH\_BANDWIDTH set to the same value as the TXVECTOR parameter CH\_BANDWIDTH in the preceding HE NDP Announcement frame
* GI\_TYPE set to either 0.8 us or 1.6 us when HE\_LTF\_TYPE is set to 2x HE-LTF; otherwise GI\_TYPE set to 3.2 us
* PE\_DURATION set to 4 us
* SPATIAL\_REUSE set to SR disallowed

The number of space-time streams sounded and as indicated by the NUM\_STS parameter shall not exceed the value indicated in the Beamformee STS Capability field in the HE Capabilities element of any intended recipient of the HE NDP. The NUM\_STS parameter may be set to any value, subject to the constraint of the previous sentence, regardless of the value of the Supported HE-MCS and NSS Set field of the HE Capabilities element at either the transmitter or recipient of the HE NDP.

The destination of an HE NDP is equal to the RA of the immediately preceding HE NDP Announcement frame.

The source of an HE NDP is equal to the TA of the immediately preceding HE NDP Announcement frame.

***TGax editor: delete the following paragraphs from sub-clause 26.3.4:***

**26.3.4 HE PPDU formats**

***…***

~~(#2061)The HE NDP PPDU has the following properties:~~

~~— Uses the HE SU PPDU format but without the Data field~~

~~— Has a Packet Extension field that is 4 μs in duration~~

~~NOTE—The number of HE-LTF OFDM symbols, NHE-LTF, (#1612)is a function of the total number of space-time streams NSTS as shown in Table 26-12 (Frequently used parameters(#282)).~~

***TGax editor: insert the following new sub-clause 26.3.16 after 26.3.15:***

**26.3.16 HE preamble format for sounding PPDUs**

NDP is the only HE sounding format.

The format of an HE NDP PPDU is shown in Figure 26-xx (HE NDP format).

**Figure 26-xx—HE NDP format**

NOTE—The number of HE-LTF symbols in the HE NDP is determined by the Nsts field in HE SIG-A.

The HE NDP PPDU has the following properties:

* uses the HE SU PPDU format but without the Data field
* has a Packet Extension that is 4 us in duration