IEEE P802.11
 Wireless LANs

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| **Proposed TGbd draft specification****For NGV receive procedure** |
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Abstract

This submission contains proposed spec text for 32.3.12 (NGV receive procedure). The text reflects the related and motions passed in 11/19/1863. The proposed changes are based on 11bd D0.2.

Revisions:

* Rev 0: Initial version of the document.

***To TGbd Editor:*** *At L59L1, replace the current text with the proposed changes below.*

***------------- Begin Text Changes ---------------***

**32.3.12 NGV receive procedure**

A typical PHY receive procedure is shown in Figure 32-14 (PHY receive procedure for NGV transmission) for NGV format. A typical state machine implementation of the receive PHY is given in Figure 32-15 (PHY receive state machine (TBD)). This receive procedure and state machine do not describe the operation of optional features, such as TBD. If the detected format indicates a non-NGV PPDU, refer to the receive procedure and state machine in Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification). Further, through station management (via ~~TBD~~ the PLME) the PHY is set to the appropriate frequency, as specified in ~~Clause X.TBD~~ 32.4 (NGV PLME). Receive parameters, such as RSSI and indicated DATARATE, may be accessed via the PHY SAP.

…



**~~TBD~~**

**Figure 32-15—PHY receive state machine ~~(TBD)~~**

The PHY shall not issue a PHY-RXSTART.indication primitive in response to a PPDU that does not overlap the OCB Primary10 MHz channel ~~(TBD)~~.

The PHY includes the most recently measured RSSI value in the PHY-RXSTART.indication(RXVECTOR) primitive issued to the MAC.

After the PHY-CCA.indication(BUSY, channel-list) primitive is issued, the PHY entity shall begin receiving the training symbols and searching for the preambles for non-NGV and NGV PPDUs, respectively. For detecting the NGV preamble, the PHY entity shall search for L-SIG and RL-SIG in order to set the maximum duration of the data stream. If RL-SIG is detected, the PHY entity should check the parity bit and RATE fields in L-SIG and RL-SIG. If either the check of the parity bit is invalid or the RATE field is not set to 3 Mb/s, a PHY-RXSTART.indication primitive is not issued, and instead the PHY shall issue the error condition PHY-RXEND.indication(FormatViolation) primitive. If a valid parity bit and the RATE with 3 Mb/s are indicated in L-SIG and RL-SIG ~~and the LENGTH field value in L-SIG and RL-SIG meets the TBD condition~~, the NGV PHY shall maintain PHY-CCA.indication(BUSY, channel-list) primitive for the predicted duration of the transmitted PPDU, as defined by ~~TBD~~ RXTIME in Equation (32-45), for all supported modes, ~~and TBD~~ unsupported modes, Reserved NGV-SIG Indication, invalid NGV-SIG CRC. Reserved NGV-SIG Indication is defined as an NGV-SIG with Reserved bits equal to 0 or any other NGV-SIG field bit combinations that do not correspond to modes of PHY operation defined in Clause 32 (Next Generation V2X (NGV) PHY specification). If the NGV-SIG indicates an unsupported mode, the PHY shall issue a PHYRXEND.indication(UnsupportedRate) primitive. If the NGV-SIG indicates an invalid CRC or Reserved NGV-SIG Indication, the PHY shall issue the error condition PHYRXEND. indication(FormatViolation).primitive. ~~If NGV-SIG indicates TBD, the PHY shall issue a PHY-RXEND.indication(TBD).primitive.~~

After receiving a valid L-SIG, RL-SIG, NGV-SIG and RNGV-SIG indicating a supported mode, the PHY

entity shall begin receiving the NGV training symbols.

The PHY optionally filters out the PPDU based on TBD.

If the PPDU is filtered out, the PHY shall issues a PHY-RXEND.indication(Filtered).primitive.

Following training fields, the Data field shall be received. The number of symbols in the Data field is determined by Equation (32-43).



$N\_{SYM,RX}= \left\{\begin{matrix}N\_{SYM,RX, }^{'}if LDPC Extra OFDM symbol=0\\N\_{SYM,RX}^{'}-1, if LDPC Extra OFDM symbol=1 \end{matrix}\right.$ (32-43)

where

LDPC Extra OFDM symbol is field in NGV-SIG (see Table 32-10 (Fields in the NGV-SIG field))

$N\_{SYM,RX}^{'}=\left⌊\left(\frac{\left(L\\_LENGTH+3\right)×8}{3}-T\_{NGV-PREAMBLE}-N\_{MA,RX}∙NNGV-LTF ×TNGV-LTF\right)/T\_{SYM}\right⌋$

***------------- End Text Changes ------------------***