IEEE P802.11
Wireless LANs

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| LB 207 Clause 6 and 8 Editorial Comment Resolution |
| Date: 2015-02-17 |
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Abstract

This submission proposes comment resolutions of MAC miscellaneous comments from TGah Draft 4.0.

* CIDs: 6026, 6027, 6028, 6029, 6030, 6031, 6032, 6033, 6034, 6035, 6036, 6037, 6038, 6039, 6115, 6102, 6103, 6104, 6105, 6106, 6107, 6108, 6109, 6110, 6114 (25 CIDs)

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 TGah Draft. This introduction is not part of the adopted material.

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

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

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 6026 | 95.07 | 6.3.3.5 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Revised- Specifying [; otherwise not present] is not a mandatory from 802.11 Style Guide. But, specifying the false condition of MIB variable is no harmful.So, agree in principle. But, because the clause number does not match with a comment and it is good to change all cases throughout Draft 4.0, please follow the editing instruction in this document. TGah editor to make the changes shown in 11-15/0265r0 under all headings that include CID 6026. |
| 6027 | 95.11 | 6.3.3.5 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Revised- Specifying [; otherwise not present] is not a mandatory from 802.11 Style Guide. But, specifying the false condition of MIB variable is no harmful.So, agree in principle. But, because the clause number does not match with a comment and it is good to change all cases throughout Draft 4.0, please follow the editing instruction in this document. TGah editor to make the changes shown in 11-15/0265r0 under all headings that include CID 6027. |
| 6028 | 95.14 | 6.3.3.5 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6029 | 96.26 | 8.3.3.6 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6030 | 96.29 | 8.3.3.6 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6031 | 97.08 | 8.3.3.7 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6032 | 97.11 | 8.3.3.7 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6033 | 97.14 | 8.3.3.7 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6034 | 97.26 | 8.3.3.7 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Revised- Specifying [; otherwise not present] is not a mandatory from 802.11 Style Guide. But, specifying the false condition of MIB variable is no harmful.So, agree in principle. But, because the page and line numbers do not match with a comment and it is good to change all cases throughout Draft 4.0, please follow the editing instruction in this document. TGah editor to make the changes shown in 11-15/0265r0 under all headings that include CID 6034. |
| 6035 | 97.29 | 8.3.3.7 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Revised- Specifying [; otherwise not present] is not a mandatory from 802.11 Style Guide. But, specifying the false condition of MIB variable is no harmful.So, agree in principle. But, because the page and line numbers do not match with a comment and it is good to change all cases throughout Draft 4.0, please follow the editing instruction in this document. TGah editor to make the changes shown in 11-15/0265r0 under all headings that include CID 6035. |
| 6036 | 98.26 | 8.3.3.8 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6037 | 98.30 | 8.3.3.8 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6038 | 100.21 | 8.3.4 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6039 | 100.25 | 8.3.4 | The presence of fields is not specified if the MIB variable in the Notes is equal to false | Add "ohterwise it is not present" at the en | Accepted |
| 6115 | 96.20 | 8.3.3.6 | dot11ShortMACHeaderOptionImplemented or dot11PV1MACHeaderOptionImplemented. It should be dot11PV1MACHeaderOptionImplemented. See clause 9.55 | Replace "dot11ShortMACHeaderOptionImplemented" with "dot11PV1MACHeaderOptionImplemented" throughout the draft. | Accepted |
| 6102 | 15.28 | 6.3.3.2.3 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6)  |
| 6103 | 22.37 | 6.3.7.2.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6104 | 24.24 | 6.3.7.3.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6105 | 26.36 | 6.3.7.4.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6106 | 29.32 | 6.3.7.5.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6107 | 31.35 | 6.3.8.2.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6108 | 33.50 | 6.3.8.3.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6109 | 35.42 | 6.3.8.4.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6110 | 38.32 | 6.3.8.5.2 | "dot11RelaySTAcCapable" misspelled in Description of new table entry for RelayActivation | Replace with "dot11RelaySTAcCapable" | Revised- Agree in principle. Replace “dot11RelaySTAcCapable” with “dot11RelaySTACapable”. (There is 9 occurances in clause 6) |
| 6114 | 57.31 | 6.3.111 | The Header compression procedure is negotiated between two STAs (does not matter whether AP or STA, see 9.51). Hence the classifications here are inconsistent. | In P57L31: Replace "AP with which it is associated" with " peer MAC entity".In P58L26: Replace "AP" with "peer MAC entity".In P58L40, P59L6, P60L6: Remove "non-AP".In P60L30: Replace "non-AP STA" with "peer MAC entity". | Accepted |

**Propose:**

Revised for CID 6026, 6027, 6034, 6035, per discussion and editing instructions in 11-15/0265r0.

***TGah editor: add “ohterwise it is not present." at the end of the following sentences.***

* *Page 94, Line 46*
* *Page 94, Line 49*
* *Page 94, Line 56*
* *Page 94, Line 61*
* *Page 95, Line 7*
* *Page 95, Line 11*
* *Page 95, Line 14*
* *Page 95, Line 56*
* *Page 95, Line 63*
* *Page 96, Line 14*
* *Page 96, Line 17*
* *Page 96, Line 26*
* *Page 96, Line 29*
* *Page 96, Line 45*
* *Page 96, Line 58*
* *Page 96, Line 61*
* *Page 97, Line 8*
* *Page 97, Line 11*
* *Page 97, Line 14*
* *Page 97, Line 56*
* *Page 97, Line 64*
* *Page 98, Line 14*
* *Page 98, Line 17*
* *Page 98, Line 26*
* *Page 98, Line 30*
* *Page 98, Line 45*
* *Page 98, Line 48*
* *Page 98, Line 51*
* *Page 99, Line 4*
* *Page 99, Line 7*
* *Page 99, Line 11*
* *Page 99, Line 56*
* *Page 99, Line 59*
* *Page 99, Line 62*
* *Page 100, Line 4*
* *Page 100, Line 7*
* *Page 100, Line 11*
* *Page 100, Line 21*
* *Page 100, Line 25*

**3.2 Definitions specific to IEEE 802.11**

sensor station (STA): A sensor STA is a non-AP STA ~~using data frames with small payload size. A sensor STA is also expected to have limited available power and low traffic volume~~ that meets the sensor profile (e.g., short MSDU size, low traffic volume , battery operated device, etc) and is allowed to associate with an AP that has setup a sensor BSS or a mixed BSS.

sub 1 GHz 1M (S1G\_1M) physical layer protocol data unit (PPDU): 1 MHz PPDU or 1 MHz Duplicated PPDU.

sub 1 GHz long (S1G\_LONG) physical layer protocol data unit (PPDU): 2 MHz, 4 MHz, 8 MHz or 16 MHz PPDU with long preamble format.

sub 1 GHz short (S1G\_SHORT) physical layer protocol data unit (PPDU): 2 MHz, 4 MHz, 8 MHz, ~~or~~ 16 MHz or 2 MHz Duplicated PPDU with short preamble format.

***TGah editor: Modify the sub-clause 8.4.2.45 as the following:***

8.4.2.45 Multiple BSSID element

—The Timestamp and Beacon Interval fields, DSSS Parameter Set, IBSS Parameter Set, Country, Channel Switch Announcement, Extended Channel Switch Announcement, Wide Bandwidth Channel Switch, VHT Transmit Power Envelope, Supported Operating Classes, IBSS DFS, ERP Information, HT Capabilities, HT Operation, VHT Capabilities, VHT Operation ~~elements~~, S1G Beacon Compatibility, Short Beacon Interval, S1G Capabilities, and S1G Operation elements are not included in the Nontransmitted BSSID Profile field; the values of these elements for each nontransmitted BSSID are always the same as the corresponding transmitted BSSID element values.

**9.22.2.2 EDCA backoff procedure**

Change the 2nd paragraph as follows:

For the purposes of this subclause, transmission failure of an MPDU is defined as follows:

— After transmitting an MPDU (even if it is carried in an A-MPDU or as part of a VHT or S1G MU PPDU that might have TXVECTOR parameter NUM\_USERS > 1) that requires an immediate frame as a response, the STA shall wait for a timeout interval of duration of aSIFSTime + aSlotTime + aRxPHYStartDelay, starting at the PHY-TXEND.confirm primitive. If a PHY-RXSTART.indication primitive does not occur during the timeout interval, the STA concludes thatthe transmission of the MPDU has failed.

**9.22.2.3 EDCA TXOPs**

Change the following paragraph in the subclause as follows:

There are three modes of EDCA TXOP defined: initiation of an EDCA TXOP, sharing an EDCA TXOP, and multiple frame transmission within an EDCA TXOP. Initiation of the TXOP occurs when the EDCA rules permit access to the medium. Sharing of the EDCA TXOP occurs when an EDCAF within an AP that supports DL-MU-MIMO has obtained access to the medium, making the corresponding AC the primary AC, and includes traffic from queues associated with other ACs in VHT or S1G MU PPDUs transmitted during the TXOP. Multiple frame transmission within the TXOP occurs when an EDCAF retains the right to access the medium following the completion of a frame exchange sequence, such as on receipt of an Ack frame.

**9.22.2.6 Sharing an EDCA TXOP**

Change the following paragraph in the subclause as follows:

This mode applies only to an AP that supports DL-MU-MIMO. The AC associated with the EDCAF that gains an EDCA TXOP becomes the primary AC. TXOP sharing is allowed when primary AC traffic is transmitted in a VHT or S1G MU PPDU and resources permit traffic from secondary ACs to be included, targeting up to four STAs. The inclusion of secondary AC traffic in a VHT or S1G MU PPDU shall not increase the duration of the VHT or S1G MU PPDU beyond that required to transport the primary AC traffic. If a destination is targeted by frames in the queues of both the primary AC and at least one secondary AC, the frames in the primary AC queue shall be transmitted to the destination first, among a series of downlink transmissions within a TXOP. The decision of which secondary ACs and destinations are selected for TXOP sharing, as well as the order of transmissions, are implementation specific and out of scope for this specification.

When sharing, the TXOP limit that applies is the TXOP limit of the primary AC.

NOTE—An AP can protect the immediate response by preceding the VHT or S1G MU PPDU (which might have TXVECTOR parameter NUM\_USERS > 1) with an RTS/CTS exchange or a CTS-to-self transmission.

**9.22.2.7 Multiple frame transmission in an EDCA TXOP**

Change the following paragraph in the subclause as follows:

Multiple frames may be transmitted in an EDCA TXOP that was acquired following the rules in 9.22.2.4 (Obtaining an EDCA TXOP) if there is more than one frame pending in the primary AC for which the channel has been acquired. However, those frames that are pending in other ACs shall not be transmitted in this EDCA TXOP except when sent in a VHT or S1G MU PPDU with TXVECTOR parameter NUM\_USERS > 1 and if allowed by the rules in 9.22.2.6 (Sharing an EDCA TXOP). If a TXOP holder has in its transmit queue an additional frame of the primary AC and the duration of transmission of that frame plus any expected acknowledgment for that frame is less than the remaining TXNAV timer value, then the TXOP holder may commence transmission of that frame a SIFS (or RIFS, if the conditions defined in 9.3.2.3.2 (RIFS) are met) after the completion of the immediately preceding frame exchange sequence, subject to the TXOP limit restriction as described in 9.22.2.2 (EDCA backoff procedure). A STA shall not commence the transmission of an RTS with a bandwidth signaling TA until at least PIFS time after the immediately preceding frame exchange sequence. An HT STA that is a TXOP holder may transmit multiple MPDUs of the same AC within an A-MPDU as long as the duration of transmission of the A-MPDU plus any expected BlockAck frame response is less than the remaining TXNAV timer value. An S1G STA that is a TXOP holder may transmit multiple MPDUs of the same AC within an A-MPDU as long as the duration of transmission of the A-MPDU plus any expected (NDP) BlockAck frame response is less than the remaining TXNAV timer value.

…

Note that, as for an EDCA TXOP, a multiple frame transmission is granted to an EDCAF, not to a STA, so that the multiple frame transmission is permitted only for the transmission of a frame of the same AC as the frame that was granted the EDCA TXOP, unless the EDCA TXOP obtained is used by an AP for a PSMP sequence or a VHT or S1G MU PPDU with TXVECTOR parameter NUM\_USERS > 1.