IEEE P802.11 Wireless LANs

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| Proposed Resolutions to Assigned CC8 Comments  |
| Date:2013-05-15 |
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Abstract

This submission proposes resolutions to the assigned CC8 comments, as indicated in document 13/0495r2 [Ref-3].

# Introduction

A group of comments have been assigned by TGai to the contributor of this contribution, as shown in document, 13/0495r2 [Ref-3].

This contribution proposes resolutions to those assigned CC8 comments.

# Conventions

In this contribution, the proposed 802.11ai Specification Document text will be presented as changes to the current TGai draft specification, 11ai/D0.5 [Ref-2]. The following format conventions are used:

1. The new added text is marked as blue underline text;
2. The deleted text is marked as ~~red strikethrough text~~;
3. The unchanged baseline standard text stays in black text in the context of proposed TGai specification text;
4. The editorial instruction is marked as *italic text highlighted by Yellow*; and
5. Any other text, e.g., discussions, proposed motions, etc., is in black text, but not in the context of proposed TGai specification text.

# Summary of the Proposed Resolutions

The following table summarizes the proposed resolutions to the assigned CC8 comments.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause Number(C)** | **Page(C)** | **Line(C)** | **Type of Comment** | **Comment** | **Proposed Change** | **Resolution** |
| 1461 | Santosh Ghanshyam Pandey | 10.25.2 | 71 | 45 | T | As the FD field may be carrying a lot of fields in Tgai, it may grow large. Also Tgai use cases deal with high density environment with many possible over the air collisions. Hence a higher data rate for the FD frames may be advisable. | Insert a paragraph at the end of subclase 10.25.2 indicating that the FD frames will be sent at a data rate of 6 Mbps or higher | Propose to accept it, but need to do the following first: 1) group discussion2) specific text.Discuss with Cmt 1223 |
| 1361 | Ping Fang | 10.25.2 | 71 | 59 | T | The sentence is not complete | Change "when a STA with dot11FILSActivated equal to true receives. if" to " when a STA with dot11FILSActivated equal to true receives a FD frame, and If" | Accept, also covered by cmt #1242 |
| 1326 | Mitsuru Iwaoka | 8.5.8.34 | 54 | 38 | T | In Table 8-221j, Supported Minimum Rate is defined by bitrate. Though, P802.11af and P802.11ah will have different bitrate set. | Replace bitrate by MCS code and optional PHY type.. | Propose to have a discussion in TGai group, and then need specific changes. |
| 1325 | Mitsuru Iwaoka | 8.5.8.34 | 54 | 23 | G | Terms "DSSS/HR", "OFDM/ERP", "11b", "11a/b", "11n", and "11ac" are not used in the IEEE Std 802.11. | Replace PHY Type descriptions in Table 8-221i as following.DSSS/HR (11b) --> HR/DSSS (Clause 17)OFDM/ERP (11a/g) --> ERP-OFDM (Clause 19)HT (11n) --> HT (Clause 20)VHT (11ac) --> VHT (Clause 22) | Accept  |
| 1242 | Lei Wang | 10.25.2 | 71 | 58 | T | The "when ..." phase in line 58 page 71 is incomplete. | Change the "when ..." phase in line 58 page 71 to the following:when a STA with dot11FILSActivated equal to true receives a FD frame, | Accept |
| 1226 | Lei Wang | 8.5.8.34 | 54 | 10 | T | The value range is incorrect for a 3-bit Nss Subfield. | in line 10 page 54, Table 8-221h, changel "5 - 8" to "5 - 7" | accept |
| 1225 | Lei Wang | 8.5.8.34 | 53 | 48 | T | The value range is incorrect for a 3-bit Operating Channel Bandwidth Subfield. | in line 48 page 53, Table 8-221g, Change "4 - 8" to 4 - 7" | accept |
| 1224 | Lei Wang | 8.5.8.34 | 51 | 57 | T | For decoding convinience, the information fields should be placed before the information elements (IEs) in a MAC frame design. Therefore, in the FILS Discovery frame, the Primary Channel field should not be place in between two IEs. | In Table 8-221f -- FILS Discovery frame format on page 51, exchange the RSNE and the Primary Channel field, i.e.,1. Move the RSNE to the row of Order 11;2. Move the Primary Channel field to the row of Order 9. | accept |
| 1194 | Lee Armstrong | 10.25.1 | 71 | 59 | T | Something missing here, incomplete sentences, and attempts to complete them result in an overly long, run-on, sentence. | Need suggested rewording of this paragraph. | Accept the proposal given by cmt #1242, i.e., Change the "when ..." phase in line 58 page 71 to the following:when a STA with dot11FILSActivated equal to true receives a FD frame, |
| 1141 | Jarkko Kneckt | 10.25.1 | 73 | 60 | T | The Differentiated Initial Link Setup coordinates the intiation of the link setup. Some times the coordination is done on association request frames transmission, some times on authentication request frames transmission or on initial link setup request frames transmission. Please clarify which operation (association, authentication or initial link setup is being controlled. Also please pay attentoion to control the transmission of hte \_correct\_ frame (authentication request?) If multiple frames are controlled by the DILS, please provide appropriate descriptions | Please clarify. | wrong section number, reassigned to Lin Cai. |
| 1123 | Jarkko Kneckt | 8.5.8.34 | 54 | 46 | T | The Supported Minimum Rates 6Mbps should be clarified. If hte minimum rate is 6Mbps is 11Mbps (.11b radio) supported in BSS. To me it sounds natural that in this case the .11b radio is not supported by the BSS. When the .11b radio is not supported, the efficiency of the network increases. | Add text to clarify that when the minimum rate is 6 Mbps, 11Mbps rate is not supported in the BSS. | need to be discussed in the Group, also, need specific text.Discussed it with Cmt 1461 |
| 1121 | Jarkko Kneckt | 8.5.8.34 | 52 | 10 | T | The Primary Channel field is not optional field, the field is needed when the FD frame is transmitted as non-HT duplicate. If the Primary Channel infomration is not present in the non-HT duplicate frame, the scanning STA may need to discover the primary channel of hte AP through other means. | Delete the sentence: "It is an optional field in the FD frame." | Accept-revised |
| 1004 | Chao Chun Wang | 10.25.2 | 71 | 59 | G | "During scanning, when a STA with dot11FILSActivated equal to true receives." The sentence seems incomplete. | Clarify | Accept the resolution given by cmt #1242, i.e., Change the "when ..." phase in line 58 page 71 to the following:when a STA with dot11FILSActivated equal to true receives a FD frame, |
| 1000 | Chao Chun Wang | 10.1.4.1 | 57 |  | T | "When a STA scans for a BSS whose AP does not support the SSID List element, or for a BSS for which AP support of the SSID List element is unknown," Since this is about active scan, is the assumption that an STA already know who the AP is, otherwise how could an STA know whether an AP support SSID list element? Is active scan still necessary is an STA already know who is the AP? | Clarify | Reject, for the following reasons:1). It comments on a text not introduced/changed by 11ai; a proper comment should be submitted to 11mc;2) no specific proposed text. |

# Proposed Changes to 802.11ai/D0.5 Specification Text

*To resolve comments: 1004, 1194, 1242, and 1361*

*Instructions to Editor: change the paragraph in line 59 on page 71 as follows:*

During scanning, when a STA with dot11FILSActivated equal to true receives a FD frame,~~.~~ if the SSID in the FD frame matches the SSID parameter or one of the SSIDs in the SSID List parameter in the MLME-SCAN.request primitive, and if the ReportingOption in the MLMS-SCAN.request is IMMEDIATE, the MLME shall issue an MLME-SCAN.confirm primitive with the information obtained from the received FD frame.

*To resolve comments: 1121 and 1224*

*Instructions to Editor: make the following changes in Table 8-221f in Section :*

**Table 8-221f — FILS Discovery frame action field format**

|  |  |  |
| --- | --- | --- |
| **Order** | **Information** | **Notes** |
| ...... |  |  |
| ~~9~~ | ~~RSNE~~ | ~~The RSNE, as specified in 8.4.2.27, is optionally present in FD frame generated by STAs that havedot11RSNAActivated equal to true.~~ |
| ~~10~~ | ~~Reduced Neighbour Report~~ | ~~The Reduced Neighbor Report element, as specified in 8.4.2.176, is optionally present.~~ |
| ~~11~~ 9 | Primary Channel | The 1-octet Primary Channel field is present and set to the channel number of the primary channel if ~~when~~ the FD frame is transmitted as a non-HT duplicate PPDUs; otherwise the field is not present. ~~It is an optional field in the FD frame.~~ The presence of the field is indicated by a 1-bit Primary Channel Presence Indicator in the FD Frame Control field. |
| 10 | RSNE | The RSNE, as specified in 8.4.2.27, is optionally present in FD frame generated by STAs that havedot11RSNAActivated equal to true. |
| 11 | Reduced Neighbour Report | The Reduced Neighbor Report element, as specified in 8.4.2.176, is optionally present. |
| ...... |  |  |

*To resolve comments: 1125*

*Instructions to Editor: make the following change:*

in line 48 page 53, Table 8-221g, last row, Change "4 - 8" to 4 - 7"

*To resolve comments: 1126*

*Instructions to Editor: make the following change:*

in line 10 page 54, Table 8-221h, last row, change the from "5 - 8" to "5 - 7"

*To resolve comments: 1325*

*Instructions to Editor: make the following changes in PHY Type descriptions in Table 8-221i in line 16 on page 54.*

**Table 8-221i — PHY Type subfield**

|  |  |
| --- | --- |
| **PHY Type subfield****(3 bits)** | **PHY Type** |
| 0 | ~~DSSS/HR (11b)~~ HR/DSSS (Clause 17) |
| 1 | ~~OFDM/ERP (11a/g)~~ ERP-OFDM (Clause 19) |
| 2 | HT ~~(11n)~~ (Clause 20) |
| 3 | VHT ~~(11ac)~~ (Clause 22) |
| 4 – 7  | Reserved |

# References:

1. IEEE Std 802.11 – 2012
2. IEEE Std 802.11ai/D0.5
3. 11-13-0495-02-00ai-tgai-d0-5-call-for-comments-responses-resolutions-cc08