IEEE P802.11
Wireless LANs

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| CC36 CR for Remaining CIDs on AAR |
| Date: Jan 10, 2022 |
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 Abstract

This submission proposes resolutions for following CIDs received for TGbe CC36 based on TGbe D1.4:

4136 4140 4141 4142 4805 7341 7554 7680 8065 8153 (10 CIDs)

Revisions:

* Rev 0: Initial version of the document.

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

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

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

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| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 4136 | Alfred Asterjadhi | 9.2.4.6.3a | 72.40 | Odd jump from value 8 to value 10. Please use value 9 for AAR so that all reserved values are contiguous. Alternatively (not preferred) add a row for 9 saying reserved, then 10, and then 11 to 14. | As in comment. | Revised-Agree with the comment. Propose resolution to update the value.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 4136 |
| 4140 | Alfred Asterjadhi | 9.2.4.6.6a.10 | 73.37 | Very ambiguous and convoluted sentence. Please clean up and clearly state the purpose of the information carried in the AAR control field (i.e., request assistance for being triggered in the specified links in the AAR bitmap.. | As in comment. | Revised-Agree with the comment. Proposed resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 4140 |
| 4141 | Alfred Asterjadhi | 9.2.4.6.6a.10 | 73.58 | The sentence seems to imply that an AP may have more than one link identifier, which is not the case. Specify that the link identifier(s) relate to the AP(s) affiliated with ...Also please split this sentence into two or more sentences. Currently it is too long and hard to read/parse. | As in comment. | Revised-Agree with the comment in principle. Each AP has only one link ID, but the bitmap here could indicate more than one link ID. Proposed resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 4141 |
| 4142 | Alfred Asterjadhi | 9.2.4.6.6a.10 | 73.62 | Can the STA request assistance in its own link? I.e., can the link identifier of the AP where the STA is operating be set to 1? Also can the STA request assistance in a link that is either not setup, or not existing, or disabled? I would assume not Please clarify. | As in comment. | Revised-The STA can‘t request assistance for its own link and can only request assistance for other enable links . Proposed resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 4142 |
| 4805 | Dibakar Das | 9.2.4.6a.10 | 5.58 | The following sentence is bit too long:"The Assisted AP Link ID Bitmap subfield indicates the link identifier(s) of an AP affiliated with an APMLD that is solicited to transmit a Trigger frame to a non-AP STA affiliated with a non-AP MLD thatbelongs to a NSTR link pair after a frame that contains AAR Control subfield sent by another non-AP STAaffiliated with the same non-AP MLD to its associated AP affiliated with the same AP MLD." Suggest simplifying it. | Change to "The Assisted AP Link ID Bitmap subfield indicates the link identifier(s) of an AP affiliated with an APMLD that is solicited to transmit a Trigger frame to a non-AP STA affiliated with a non-AP MLD thatbelongs to a NSTR link pair." | Revised-Agree with the comment. Proposed resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 4805 |
| 7341 | stephane baron | 9.2.4.6a.10 | 73.63 | Is i=15 allowed ? If yes, what does it mean ? Please precise the range of i ( 0<= 1 < 15 ) | As in comment | Revised-Agree with the comment. Propose resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 7341 |
| 7554 | Tomoko Adachi | 9.2.4.6a.10 | 73.38 | "... a non-AP STA affiliated with a non-AP MLD that belongs a NSTR link pair ..." Better to say as "... a non-AP STA affiliated with a non-AP MLD that has an NSTR link pair ..." | As in comment. | Revised-It means that a non-AP STA belongs to an NSTR link pair. Proposed resolution resolves the ambiguity.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 7554 |
| 7680 | Xiaofei Wang | 9.2.4.6a.10 | 73.58 | A bit map is not a link identifier, but an indication. | change "link identifier(s)" to "links" | Revised-Agree with the comment. Propose resolution accounts for the suggested change.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 7680 |
| 8065 | Yuchen Guo | 9.2.4.6a.10 | 73.39 | add "to" after "belongs" | as in comment |  Accepted- |
| 8153 | Yunbo Li | 9.2.4.6.3a | 71.41 | why leave Control ID =9 reserved? | if no specific reason, please allocte Control ID =9 to AAR to make the table more clean. | Revised-Agree with the comment. Propose resolution to update the value.TGbe editor:Please implement the changes as shown in doc 11-22/0239r0 tagged as 8153 |

***TGbe editor: Please note baselines are 802.11-2020 and 11be D1.4***

* HE variant

(…existing texts…)

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| * Control ID subfield values
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| Control ID value | Meaning | Length of the Control Information subfield (bits) | Content of the Control Information subfield |
| 0 | Triggered response scheduling (TRS) | 26 | See 9.2.4.6a.1 (TRS Control) |
| 1 | Operating mode (OM) | 12 | See 9.2.4.6a.2 (OM Control) |
| 2 | HE link adaptation (HLA) | 26 | See 9.2.4.6a.3 (HLA Control) |
| 3 | Buffer status report (BSR) | 26 | See 9.2.4.6a.4 (BSR Control) |
| 4 | UL power headroom (UPH) | 8 | See 9.2.4.6a.5 (UPH Control) |
| 5 | Bandwidth query report (BQR) | 10 | See 9.2.4.6a.6 (BQR Control) |
| 6 | Command and status (CAS) | 8 | See 9.2.4.6a.7 (CAS Control)) |
| 7 | EHT Operating Mode (EHT OM) | 6 | See 9.2.4.6a.8 (EHT OM) |
| 8 | Single response scheduling (SRS) | 10 | See 9.2.4.6a.xxx (SRS Control) |
| 9 (CID#4136, 8153) | AP assistance requested (AAR) | 20 | See 9.2.4.6a.yyy (AAR Control) |
| 10-14 (CID#4136, 8153) | Reserved |  |  |
| 15 | Ones need expansion surely (ONES) | 26 | See 10.8 (HT Control field operation) |

**9.2.4.7.10 AAR Control**

The Control Information subfield in an AAR Control subfield contains information of the link identifier(s) of the assisting AP(s) affiliated with an AP MLD that are requested (CID #4140)to assist a non-AP STA affiliated with a non-AP MLD, belonging to (CID #8065) an NSTR link pair, (CID #7554) to recover its medium synchronization (35.3.16.8.2 (AP assisted medium synchronization recovery procedure)).

The format of this subfield is shown in Figure 9-33c (Control Information subfield format in an AAR Con-trol subfield).

|  |  |  |
| --- | --- | --- |
|  | B0      B15 | B16 B19 |
|  | Assisting AP Link ID Bitmap (CID #4141, 4805) | Reserved |
| Bits: | 16 | 4 |
| **Figure 9-33c – Control Information subfield format in an AAR Control subfield** |

The Assisting AP Link ID Bitmap subfield in the AAR Control subfield indicates the link(s) associated with (CID #7680) the link identifier(s) of the assisting AP(s) affiliated with an AP MLD. Each assisting AP is solicited to transmit a Trigger frame to its associated non-AP STA that belongs to the same NSTR link pair as the non-AP STA that sent the AAR control field. (CID #4141, 4805). A value of 1 in bit position i of the Assisting AP Link ID Bitmap subfield means that the link ID i is the link identifier of the assisting AP affiliated with the AP MLD. A value of 0 in bit position i of the Assisting AP Link ID Bitmap subfield means that the link ID i is not the link identifier of the assisting AP affiliated with the AP MLD.

The bit in the Assisting AP Link ID Bitmap subfield that corresponds to the AP to which the AAR control field is addressed, is set to 0 (CID #4142). The bit in position 15 of the Assisting AP Link ID Bitmap subfield is reserved (CID #7341).