### IEEE P802.11Wireless LANs

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Abstract

This submission proposes resolutions for the following CIDs:

1053, 1784, 1785, 3252, 1055, 2251, 2316, 2317, 3243, 1443, 1677, 1711, 1812, 2477, 2088, 2377, 2424, 3251, 3025, 1783, 2127, 2899, 2475, 2593, 3316, 2313, 1805

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 D0.3 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D0.3 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** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1053 | Abhishek Patil | 131.43 | 35.3.5.1 | Multi-Link element - should be Basic variant of Multi-Link element | As in comment | Revised – Agree in principle with the commenter. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1053. |
| 1784 | Insun Jang | 131.43 | 35.3.5.1 | Of descriptions of example of ML setup", an ML element" should be a Basic variant Multi-Link element based on ML IE format in current D0.3 | As in the comment | Revised – Agree in principle with the commenter. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1053. |
| 1785 | Insun Jang | 131.48 | 35.3.5.1 | Of descriptions of example of ML setup, "an Multi-Link element" should be Basic variant Multi-Link element based on ML IE format in current D0.3 | As in the comment | Revised – Agree in principle with the commenter. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1785. |
| 3252 | Yuchen Guo | 131.48 | 35.3.5.1 | the Multi-Link element mentioned here should be basic variant | add "basic variant" before "Multi-Link" | Revised – Agree in principle with the commenter. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1785. |
| 1055 | Abhishek Patil | 132.08 | 35.3.5.3 | The text in the two paragraphs can be consolidated to cover the AP or non-AP sending the disassociation frame. | As in comment | Revised –The original intention of the sentences are to describe from the perspective of non-AP MLD or AP MLD to tear down the links. We rewrite the sentence to clarify above and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 2251 | Massinissa Lalam | 132.08 | 35.3.5. | Teardown procedure is not really clear as we have two "shall" which lead to the same result. Maybe some precision should be added to specify who is initiating the teardown. Something like:"If a non-AP MLD wants to tear down the multi link setup with an AP-MLD, one of the non-AP STAs affiliated with the non-AP MLD shall send a disassociation frame to the AP affiliated with the AP MLD on the corresponding link that is enabled, and the non-AP MLD and the AP MLD shall follow MLD disassociation procedure as described in 11.3 (STA/MLD authentication and association)."If an AP MLD wants to tear down the multi link setup with a non-AP MLD, one of the APs affiliated with the AP MLD shall send a disassociation frame to the non-AP STA affiliated with the non-AP MLD on the corresponding link that is enabled, and the non-AP MLD and the AP MLD shall follow MLD disassociation procedure as described in 11.3 (STA/MLD authentication and association)." | As in comment | Revised –Indeed, the original intention of the sentences are to describe from the perspective of non-AP MLD or AP MLD to tear down the links. We rewrite the sentence to clarify above and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 2316 | Ming Gan | 132.09 | 35.3.5.4 | Since tear down could be done by both non-AP and AP, "shall" is not correct | As in comment | Revised –The original intention of the sentences are to describe from the perspective of non-AP MLD or AP MLD to tear down the links. We rewrite the sentence to clarify above and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 2317 | Ming Gan | 132.15 | 35.3.5.5 | Since tear down could be done by both non-AP and AP, "shall" is not correct | As in comment | Revised –The original intention of the sentences are to describe from the perspective of non-AP MLD or AP MLD to tear down the links. We rewrite the sentence to clarify above so that the shall statement will make sense. We also merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 3243 | Young Hoon Kwon | 132.08 | 35.3.5.3 | These two paragraphs are somewhat misleading. I think the first paragraph describes a behavior when a non-AP MLD indtends to tear down the setup links, and the second paragraph is when an AP MLD intends to tear down the setup links. However, the description does not include this. Please modify the text of these two paragraphs such as "If a non-AP MLD intends to tear down the setup links ...," for the first paragraph, and "If an AP MLD intends to tear down the setup links ...". or something similar. | As shown in the comment. | Revised –The original intention of the sentences are to describe from the perspective of non-AP MLD or AP MLD to tear down the links. We rewrite the sentence to clarify above and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 1443 | Chunyu Hu | 132.15 | 35.3.5.3 | Does "respectively" mean the AP needs to send each of the non-AP STA affiliated with the non-AP MLD an disassociation frame? Should be sufficient to send to one of the non-AP STA affiliated with the non-AP MLD. | Remove "respectively, " | Revised –We rewrite the sentence to delete respectively and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 1677 | GEORGE CHERIAN | 132.08 | 35.3.5.3 | "To tear down the setup links between a non-AP MLD and an AP MLD, one of the APs affiliated with the AP MLD, respectively, shall send disassociation frame to the non-AP STA affiliated with the non-AP MLD on the corresponding link that is enabled, and the non-AP MLD and the AP MLD shall follow MLD disassociation procedure as described in 11.3 (STA/MLD authentication and association).":Use "Disassociation frame" (not disassociation frame) since it is referring to a frame | As in the comment | Revised - We rewrite the sentence to use “Disassocaition frame” and merge the two sentences.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1055. |
| 1711 | Guogang Huang | 133.35 | 35.3.5.1 | In the (Re)Association Request frame, the non-AP MLD requests to set up <Link 1, STA 1>, <Link 2, STA 2> and <Link 3, STA 3>. But From the AP MLD side, it maybe only want to set up <Link 1, STA 1>, <Link 2, STA 3> and <Link 3, STA 2>. How to realize this case? It's better to allow AP MLD to decide which affiliated STA of the non-AP MLD associates with which affiliated AP of an AP MLD. Because the AP MLD has global view of the conditions in each BSS, e.g. affiliated STAs' capabilities, traffic flows, type of traffic, number of clients on each link etc. | The solution is proposed in my presentation DCN1534 | Rejected – The capability information provided for each affiliated STA from non-AP MLD is link specific. It does not make sense for AP MLD to swap capability of a non-AP STA intended for one link to a different link.  |
| 1812 | James Yee | 132.11 | 35.3.5.3 | Here it is stated that a link needs to be enabled for disassociation (and exchange of mgmt frames). Seems better to allow tear down no matter if an enabled link exists. | Explain why it is necessary for a link to be enabled for teardown to occur. | Rejected – It is defined in 35.3.6.1.1 General that if a link is disabled, then it is not used for frame exchange including management frame. The cited text is provided below.*If a link is disabled, it shall not be used for frame exchange, including Management frames* |
| 2477 | Payam Torab Jahromi | 132.08 | 35.3.5.3 | Remove "that is enabled" from the first two paragraphs, as it is unrelated to the tear down procedure. Definition and ioperation of enabled/disabled links is separate. | As in the comment | Rejected – It is defined in 35.3.6.1.1 General that if a link is disabled, then it is not used for frame exchange including management frame. The cited text is provided below. This is the reason when we have “that is enabled” for the frame exchange to be allowed to start with.*If a link is disabled, it shall not be used for frame exchange, including Management frames* |
| 2088 | Joseph Levy | 130.50 | 35.3.5.1 | What MAC address is used for the individually addressed frames to be exchanged during authentication, prior to ML setup? | I do not see any information regarding the MAC address to be used during authentication all that is specified is that it is done prior to ML setup. How does this work. | Rejected – Regardless of the stage, the TA/RA of the individually addressed frame all use STA MAC address.*The value of the Address 2 field (TA) field in the MAC header of a frame sent over-the-air shall be the MACaddress of the transmitting STA affiliated with the MLD corresponding to that link except theIndividual/Group bit, which is set to 1 when the TA field value is a bandwidth signaling TA and set to 0otherwise.The value of the Address 1 (RA) field in the MAC header of an individually addressed frame sentover-the-air shall be the MAC address of the receiving STA affiliated with the MLD corresponding to thatlink* |
| 2377 | Muhammad Kumail Haider | 132.11 | 35.3.5.3 | The concept of enabled link is discussed in the first paragraph, but an "Enabled link" is defined in a later section (35.3.6.1.1). | Define an enabled link before its usage | Revised –We add a reference for the enabled linke. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 2377. |
| 2424 | namyeong kim | 130.59 | 35.3.5.1 | How to indicate the links that are requested for (re)setup? We need to define a signaling to indicate it. | Please define a signaling to indicate links that are requested for (re)settup. | Rejected – The indication is already provided in 35.3.5.4 Usage and rules of Basic variant Multi-link element in the context of multi-link setup.*The Basic variant Multi-Link element carried in the (Re-)Association Request frame shall include one or more STA profile subelement(s), each of which contains the complete information (such as capabilities) of a non-AP STA affiliated with the non-AP MLD and corresponding to a link that is requested for multi-linksetup* |
| 3251 | Yuchen Guo | 131.46 | 35.3.5.1 | How to indicate the successful for each link? We need a status code in the STA profile of the multi-link element to indicate whether each link is successfully setup or not, and the reason of failure | as in comment | Revised –We add status code in Per-STA profile of the multi-link element. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 3251. |
| 3025 | Xiaofei Wang | 131.11 | 35.3.5.1 | The description for each non-AP STA is in the same associated state to the AP STA as the non-AP MLD to the AP MLD is really causing confusion. Is the association on the MLD level or each STA level, or both? The concept of MLD association needs to be clarified. | as in comment | Rejected – The description is added so that in each link non-AP STA and AP can still use all the baseline operation, which is written as only work between AP and non-AP STA that are in associated state.We already have description that this associated state follow MLD and does not provide the corresponding non-AP STA to the corresponding AP mapping to the DS so that the MLD association will be overrided, and the affiliated STA just follows the state of the MLD. |
| 1783 | Insun Jang | 131.07 | 35.3.5.1 | "...the non-AP MLD and the AP MLD setup links for multi-link operation,..", For multi-link operation, it would be better to refer to the ML operation section | Please put "as described in 35.3 (Multi-link operation) after "for multi-link operation" | Revised – We add “(see subclauses in 35.3 (Multi-link operation) after 35.3.5 (Multi-link (re)setup))”.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1783. |
| 2127 | Laurent Cariou | 0.00 | 35.3.5.1 | Shouldn't we remove "the non-AP MLD and the AP MLD setup links for multi-link operation" in the following sentence "After successful multi-link (re)setup between a non-AP MLD and an AP MLD, the non-AP MLD and the AP MLD setup links for multi-link operation" | as in comment | Revised – We keep the description of “setup links” to connect with the description in the following paragraph. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1783. |
| 2899 | Stephen McCann | 131.19 | 35.3.5.1 | In Figure 35-2, the Association Request/Response frame exchange should be between the non-AP MLD and the AP MLD (in other words between the outer rectangles). The Association Request/Response frame exchange does not occur between AP 1 and non-AP STA 1. | Figure 35-2 needs to be corrected per the comment. The text describing Figure 35-2 also needs to be updated to explain that the Association Request/Response frames are exchanged between the non-AP MLD and the AP MLD. The affiliated STAs transport the frames but are not involved in the association. | Revised – Agree in principle with the commeter. We revise the figure to clarify that the Assocaiton Request/Response is exhcnaged over the corresponding WM to highlight the setting of TA/RA of the Association Request/Response frame. We also revise the description to clarify that association request/response frame is initiating by the corresponding MLD. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 2899. |
| 2475 | Payam Torab Jahromi | 131.20 | 35.3.5.1 | For generality, in Figure 35-2 and corresponding text show (1) unequal number of STAs in AP and non-AP MLDs, and (2) a subset forming a link after ulti-link set up | Show 4 STAs in AP MLD (2.4, lower 5, upper 5 and 6 GHz) and 3 STAs in non-AP MLD, and after set up show 2 links connecting to 2.4 and 6 GHz AP STAs. Change the corresponding text after the figureto describe the details. | Revised – The example is chosen to be illustrative for an easy to understand scenario and emphasize the address setting.For the case that non-AP MLD may not request all the links to be setup, and AP MLD may not accept all the links that are requested to be setup, we add “may” descriptions in the spec. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 2475.  |
| 2593 | Rojan Chitrakar | 131.18 | 35.3.5.1 | This is a great example, many thanks to the contributor. Would be appreciated if another example was given showing a failure case, where at least one link is refused by the AP MLD and/or the case where the Association response goes out on a different link than the link in which the Association request is received (if this is alowed). | Provide another example showing a failure case, where at least one link is refused by the AP MLD and/or the case where the Association response goes out on a different link than the link in which the Association request is received (assuming this is alowed). | Revised – We note that before multi-link setup, there are no notions of setup links and procedure on responding Association Response frame in a different link does not have baseline mechanism to support. We add description to clarify that Association response should be in the same link. TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 2593. |
| 3316 | Yunbo Li | 130.46 | 35.3.5 | Seems multi-link setup is the same concept as multi-link association. Do we need to keep both of them. Maybe only need to keep multi-link association in the spec. | as in comment. | Rejected – We note that MLD association is focusing on the concept that one (non-AP MLD, AP MLD) mapping is presented to the DS. For the additional concept of multiple links that are setup, clause 35.3.5 then describe the correspoinding procedure, where (re)association request/response are reused and links that are requested/accepted for (re)setup is then further indicated in the frame.  |
| 2313 | Ming Gan | 130.46 | 35.3.5 | Multi-link setup is not correct name, change it multi-link association in this subclause | As in comment | Rejected – We note that MLD association is focusing on the concept that one (non-AP MLD, AP MLD) mapping is presented to the DS. For the additional concept of multiple links that are setup, clause 35.3.5 then describe the correspoinding procedure, where (re)association request/response are reused and links that are requested/accepted for (re)setup is then further indicated in the frame.  |
| 1805 | James Yee | 131.11 | 35.3.5 1 | While "link setup" is a defined process in the baseline spec, a "setup link", which supposedly means "a link that has been completed 'link setup' " is not as clearly defined and reusing the same word to describe a process and the state related to a link is confusing. | Define more clearly the states of a link of a MLD are (maybe expand in 11.3.2/3) and use a different label than 'setup' to describe the state of a link that has completed setup. For example, "Operational" or "Activated". | Revised -We note that “setup” is an appproviate term because “setup” emphasizes the fact that capabilities and operational parameters are exchanged for each link that are setup. After the setup, the spec then defines additional state called “enabled/disabled” as described in 35.3.6.TGbe editor to make the changes shown in 11-21/0390r0 under all headings that include CID 1805. |

**Discussion:** *None.*

**Propose:**

*TGbe editor: Change 35.3.5.1* Multi-link (re)setup procedure *as follows (track change on):*

* Multi-link (re)setup
* Multi-link (re)setup procedure

Before a non-AP MLD performs multi-link (re)setup with an AP MLD, the non-AP MLD and AP MLD shall follow MLD authentication procedure as described in 11.3 (STA/MLD authentication and association).

For a non-AP MLD to perform multi-link (re)setup with an AP MLD, the non-AP MLD and the AP MLD shall exchange (Re)Association Request/Response frames and shall follow MLD (re)association procedure as described in 11.3 (STA/MLD authentication and association).

In the (Re)Association Requeust frame, the non-AP MLD indicates the links that are requested for (re)setup and the capabilities and operational parameters of the requested links(#1805) as described in 35.3.5.4 (Usage and rules of Basic variant Multi-link element in the context of multi-link setup). The non-AP MLD may request to (re)setup links with a subset of APs affiliated with the AP MLD. (#2475)

In the (Re)Association Response frame, the AP MLD indicates the links that are accepted for (re)setup and the capabilities and operational parameters of the accepted links(#1805) as described in 35.3.5.4 (Usage and rules of Basic variant Multi-link element in the context of multi-link setup). The AP MLD may not accept all the links that are requested for (re)setup. (#2475) The (Re)Association Response frame shall be sent to the non-AP STA affiliated with the non-AP MLD that sent the (Re)Association Request frame. (#2593)

After successful multi-link (re)setup between a non-AP MLD and an AP MLD, the non-AP MLD and the AP MLD setup linksfor multi-link operation (see subclauses in 35.3 (Multi-link operation) after 35.3.5 (Multi-link (re)setup)), and the non-AP MLD is in associated state and is (re)associated with the AP MLD.(#1783)

For each setup link, the corresponding non-AP STA affiliated with the non-AP MLD is in the same associated state as the non-AP MLD and is associated with the corresponding AP affiliated with the AP MLD, without providing the corresponding non-AP STA to the corresponding AP mapping to the DS, and enables the functionalities between a non-AP STA and its associated AP unless the functionalities have been extended to MLD level and specified otherwise.

An example of multi-link setup is shown in Figure 35-2 (Example of multi-link setup).



 Figure 35-2 – Example of multi-link setup(#2899)

In this example, AP MLD has three affiliated APs: AP 1 operates on 2.4 GHz band, AP 2 operates on 5 GHz band, and AP 3 operates on 6 GHz band. Non-AP MLD initiates the multi-link setup procedure, and non-AP(#2899) STA 1 affiliated with the non-AP MLD sends an Association Request frame to AP 1 affiliated with the AP MLD, i.e., the TA of the Association Request frame is set to the MAC address of the non-AP STA 1 and the RA of the Association Request frame is set to the MAC address of the AP 1. The Association Request frame includes complete information of non-AP STA 1, non-AP STA 2, and non-AP STA 3 to request three links to be setup (one link between AP 1 and non-AP STA 1, one link between AP 2 and non-AP STA 2, and one link between AP 3 and non-AP STA 3) and a Basic variant Multi-Link element(#1053) that indicates the MLD MAC address of the non-AP MLD. AP MLD then responds to the requested multi-link setup, and(#2899) AP 1 affiliated with the AP MLD sends an Association Response frame to non-AP STA 1 affiliated with the non-AP MLD, i.e., the TA of the Association Response frame is set to the MAC address of the AP 1 and the RA of the Association Response frame is set to the MAC address of the non-AP STA 1, to indicate successful multi-link setup. The Association Response frame includes complete information of AP 1, AP 2, and AP 3 and a Basic variant(#1785) Multi-Link element that indicates the MLD MAC address of the AP MLD. After successful multi-link setup between the non-AP MLD and AP MLD, three links are setup (link 1 between AP 1 and non-AP STA 1, link 2 between AP 2 and non-AP STA 2, and link 3 between AP 3 and non-AP STA 3).

*TGbe editor: Change 35.3.5.3* Multi-link tear down procedure *as follows (track change on):*

* Multi-link tear down procedure

For an MLD to tear down the setup links between the MLD and an associated peer MLD, one of the STAs affailited with the MLD shall send Disassocaition frame to the STA affiliated with the peer MLD on the corresponding link that is enabled (see 35.3.6.1.1 (General)) (#2377), and the MLD and the peer MLD shall follow MLD disassociation procedure as described in 11.3 (STA/MLD authentication and association).(#1055)

After multi-link teardown, all the non-AP STAs affiliated with the non-AP MLD are in the same unassociated state as the non-AP MLD.

*TGbe editor: Change 9.4.2.295b.2* Basic variant Multi-Link element *as follows (track change on):*

* Basic variant Multi-Link element

(…existing texts…)

Each Per-STA Profile subelement starts with Per-STA Control field followed by variable number of fields and elements as defined in 35.3.2 (Container for multi-link information).

The format of the Per-STA Control field is defined in Figure 9-788ej (Per-STA Control field format).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | B0 B3 | B4 | B5 B20 | B21 TBD |
|  | Link ID | Complete Profile | Status Code | Reserved |
| Bits: | 4 | 1 | 16(#3251) | TBD |
|  | * Per-STA Control field format
 |

The Link ID subfield specifies a value that uniquely identifies the link where the reported STA is operating on.

The Complete Profile subfield is set to 1 when the Per-STA Profile subelement of the Multi-Link element is complete as defined in 35.3.2.2 (Complete or partial per-STA profile). Otherwise the subfield is set to 0.

The Status Code subfield is defined in 9.4.1.9 (Status Code field) when the Basic variant Multi-link element is carried in (Re)association Request frame to indicate if a link is accepted for setup or not accepted with failure cause. Otherwise, the subfield is reserved. (#3251)

Other subfields are TBD.

*TGbe editor: Change 35.3.5.4* Usage and rules of Basic variant Multi-link element in the context of multi-link setup *as follows (track change on):*

* Usage and rules of Basic variant Multi-link element in the context of multi-link setup

A non-AP MLD may initiate a multi-link setup with an AP MLD to setup more than one link with a subset of APs that are affiliated with the AP MLD. When a non-AP MLD initiates a multi-link setup with an AP MLD, a non-AP STA that is affiliated with the non-AP MLD shall transmit an (Re-)Association Request frame on the link it is operating on. An AP that is affiliated with the AP MLD and that received the           (Re-)Association Request frame shall transmit an (Re-)Association Response frame.

The non-AP STA shall include a Basic variant Multi-Link element in the (Re-)Association Request frame it transmits.

The Basic variant Multi-Link element carried in the (Re-)Association Request frame shall include the Common Info field and the Link Info field.

The Common Info field of the Basic variant Multi-Link element carried in the (Re-)Association Request frame shall include the MLD MAC address of the MLD with which the non-AP STA is affiliated by setting the MLD MAC Address Present subfield of the Multi-Link Control field of the Basic variant Multi-Link element to 1.

The Link Info field of the Basic variant Multi-Link element carried in the (Re-)Association Request frame shall include one or more Per-STA Profile subelement(s), each of which contains the complete information (such as capabilities) of a non-AP STA affiliated with the non-AP MLD and corresponding to a link that is requested for multi-link setup and shall set the Complete Profile subfield of the Multi-Link Control field of the Basic variant Multi-Link element to 1.

The Link ID subfield of the Per-STA Control field of the Per-STA Profile subelement for the corresponding non-AP STA that requests a link for multi-link setup with the AP MLD is set to the link ID of an AP MLD that is operating on that link. The link ID is obtained during discovery.

The AP shall include a Basic variant Multi-Link element in (Re-)Association Response frame that it transmits.

The Basic variant Multi-Link element carried in the (Re-)Association Response frame shall include Common Info field and Link Info field.

The Common Info field of the Basic variant Multi-Link element carried in the (Re-)Association Response frame shall include the MLD MAC address of the MLD with which the AP is affiliated by setting MLD MAC Address Present subfield of the Multi-Link Control field of the Basic variant Multi-Link element to 1.

The Link Info field of the Basic variant Multi-Link element carried in the (Re-)Association Response frame shall include one or more Per-STA Profile subelement(s), each of which contains the complete information (such as capabilities and operational parameters) of an AP affiliated with the AP MLD and corresponding to a link that is accepted by the AP MLD and requested by the non-AP MLD and shall set the Complete Profile subfield of the Per-STA Control field of the Basic variant Multi-Link element to 1 and indicate SUCCESS in the Status Code subfield of the Per-STA Control field of the Basic variant Multi-Link element. (#3251)

The Link Info field of the Basic variant Multi-Link element carried in the (Re)Association Response frame shall include a Per-STA Profile subelement corresponding to a link that is not accepted by the AP MLD, is requested by the non-AP MLD and is not the link used to send (Re)Association Request frame, and shall set the Complete Profile subfield of the Per-STA Control field of the Basic variant Multi-Link element to 1 and indicate the failure cause of not accepting the link in the Status Code subfield of the Per-STA Control field of the Basic variant Multi-Link element. (#3251)

The Link ID subfield of the Per-STA Control field of the Per-STA Profile subelement for the corresponding AP that accepts a link requested by an STA of non-AP MLD with a non-AP MLD is set to the link ID of the AP of the AP MLD that is operating on that link.

Each Per-STA Profile subelement included in the Basic variant Multi-Link element carried in the                   (Re-)Association Request frame and the (Re-)Association Response frame shall not include another Basic variant Multi-Link element.

An STA affiliated with an MLD shall include a Basic variant Multi-Link element containing the MLD MAC address of the MLD with which the STA is affiliated in the Authentication frame that it transmits.

An STA, which is affiliated with an MLD, may select and manage its operating parameters independently from the other STA(s) affiliated with the same MLD, unless specified otherwise.