### IEEE P802.11 Wireless LANs

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| 11be D1.0 CR for missing elements-in-clause 6-3 | | | | |
| Date: 2022-02-14 | | | | |
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Abstract

This submission proposes resolutions for the following 8 CIDs:

CID : 4134,4135,6165,7757,7758,7771,8257,7836

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Modify the description about the TID-To-Link Mapping element and Multi-Link element

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 D1.4 Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe D1.4 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.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 4134 | Alfred Asterjadhi | 51.01 | 6 | Seems the list of elements in the respective subclauses of this clause is incomplete. PLease check that all newly defined elements in clause 9 are added in the respective locations in this clause. | As in comment. | **Revised**  Agree that the text should be updated in the respective locations in this clause according to all newly defined elements in clause 9.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 4134** |
| 4135 | Alfred Asterjadhi | 51.01 | 6 | I see that request/responses portions for NSEP are added, but several others appear to be missing. For example TID to Link mapping, etc. Check what is missing and add accordingly | As in comment. | **Revised**  Agree that this text should be updated. TID to link mapping should be added in the (Re)association related primitives in clause 6.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 4134** |
| 6165 | Michael Montemurro | 51.01 | 6 | The ML element needs to be in mlme.join and mlme.start primitives. That would clean up the terminology issues with Authenticate/Associate/ | Update mlme.start and mlme.join to support MLO. There needs to be a way for an MLD invoke something to join or start a BSS, At keast explain how this works for MLO. | **Revised**  Aggreed that the ML element should be added in MLME-START and MLME-JOIN primitives.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 6165** |
| 7757 | Yanchao Xu | 51.19 | 6.3.3.2.2 | (Probe Request variant) Multi-Link Element should be inlcuded In MLME-SCAN.request | as comments | **Revised**  Agree that the Multi-Link element should be included in MLME-SCAN.request  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 7757** |
| 7758 | Yanchao Xu | 52.01 | 6.3.3.3.2 | (Basic variant) Multi-Link Element of peer MLD should be inlcuded In MLME-SCAN.confirm | as comments | **Revised**  Agree that the Multi-Link element should be included in MLME-SCAN.confirm.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 7758** |
| 7771 | Yanchao Xu | 56.13 | 6.3.7.2 | Please include TID-To-Link Mapping Element in the (Re)ASSOCIATE related primitives | as comments | **Revised**  Agree in principle with comments. Agreed that this text should be updated because TID-To-Link Mapping element has been present in (Re)Association request/response frame, the (Re)Association related primitives should be updated.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 4134** |
| 8257 | Zhiqiang Han | 56.38 | 6.3.7.2.2 | TID-To-Link Mapping element shall be included in the parameters. | Please add TID-To-Link Mapping element into MLME-ASSOCIATE.request primitive. | **Revised**  Agree in principle with comments. Agreed that this text should be updated because TID-To-Link Mapping element has been present in (Re)Association request/response frame, the (Re)Association related primitives should be updated.  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 4134** |
| 7836 | Yonggang Fang | 0.00 | 6.3.12 | In the clause 6.3.12 of 802.11md, it describes SME to stop infrastructure BSS. This clause should be modified to support SME to stop infrastructure BSS of MLD. | Please update the clause 6.3.12 to support SME to stop infrastructure BSS of MLD. | **Revised**  **Agree in principle with comments. Beacause the multi-link operation is added in the spec, this clause should support to stop infrastructure BSS of MLD.**  **TGbe editor: please incorporate changes shown in 11-21/0226r1 under the tag 7836** |

**6.3.3 Scan**

**6.3.3.2 MLME-SCAN.request**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-SCAN.request(

…,

EHTCapabilities,

MultiLink,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| MultiLink(#7757) | Probe Request Multi-Link element | As defined in  9.4.2.312 (Multi-  Link element) | Indicates the Multi-Link parameters of  the MLD. This parameter is present if  dot11MultiLinkActivated is true and is  absent otherwise. |
| VendorSpecificInfo | A set of elements | As defined in  9.4.2.25 (Vendor  Specific element) | Zero or more elements. |

**6.3.3.3 MLME-SCAN.confirm**

**6.3.3.3.2 Semantics of the service primitive**

Insert the following rows to the untitled IBSS adoption table as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Type | Valid range | Description | IBSS adoption |
| ... |  |  |  |  |
| MultiLink(#7758) | Basic Multi-Link element | As defined in  9.4.2.312 (Multi-  Link element) | Indicates the Multi-Link parameters of  the MLD. This parameter is present if  dot11MultiLinkActivated is true and is  absent otherwise. | Do not adopt |

**6.3.4.2 MLME-JOIN.request**

**6.3.4.2.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-JOIN.request(

…,

EHTCapabilities,

MultiLink,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| MultiLink(#6165) | Basic Multi-Link element | As defined in  9.4.2.312 (Multi-  Link element) | Indicates the Multi-Link parameters of  the MLD. This parameter is present if  dot11MultiLinkActivated is true and is  absent otherwise. |
| VendorSpecificInfo | A set of elements | As defined in  9.4.2.25 (Vendor  Specific element) | Zero or more elements. |

**6.3.7.2 MLME-ASSOCIATE.request**

**6.3.7.2.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-ASSOCIATE.request(

...

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| MultiLink | Basic Multi-Link  element(#6700) | As defined in  9.4.2.312 (Multi-  Link element) | Indicates the Multi-Link parameters of  the MLD. This parameter is present if  dot11MultiLinkActivated is true and is  absent otherwise. |
| TTID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificInfo | A set of elements | As defined in  9.4.2.25 (Vendor  Specific element) | Zero or more elements. |

**6.3.7.3 MLME-ASSOCIATE.confirm**

**6.3.7.3.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-ASSOCIATE.confirm(

...

EHTCapabilities,

EHTOperation,

MultiLink,

TID-To-Link Mapping，

VendorSpecificInfo)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TTID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.7.4 MLME-ASSOCIATE.indication**

**6.3.7.4.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-ASSOCIATE.indication(

...

EHTCapabilities，

MultiLink，

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the peer STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.7.5 MLME-ASSOCIATE.response**

**6.3.7.5.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-ASSOCIATE.response(

...

EHTCapabilities,

EHTOperation,

MultiLink,

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if  dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the peer STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.8.2 MLME-REASSOCIATE.request**

**6.3.8.2.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-REASSOCIATE.request(

...

EHTCapabilities,

MultiLink,

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.8.3 MLME-REASSOCIATE.confirm**

**6.3.8.3.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-REASSOCIATE.confirm(

...

EHTCapabilities,

EHTOperation,

MultiLink,

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.8.4 MLME-REASSOCIATE.indication**

**6.3.8.4.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-REASSOCIATE.indication(

...

EHTCapabilities,

MultiLink,

TID-To-Link Mapping,

VendorSpecificInfo

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the peer STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

)

**6.3.8.5 MLME-REASSOCIATE.response**

**6.3.8.5.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-REASSOCIATE.response(

...

EHTCapabilities,

EHTOperation,

MultiLink,

TID-To-Link Mapping,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| TID-To-Link Mapping(#4134) | TID-To-Link Mapping element | As defined in 9.4.2.314 （TID-To-Link Mapping element） | Indicates links on which frames belonging to each TID can be exchanged. This parameter is present if  dot11MultiLinkActivated is true, dot11TIDtoLinkMappingActivated is true, and the peer STA initiates both an MLD association and a TID-to-link mapping negotiation. Otherwise it is not present. |
| VendorSpecificIn  fo | A set of  elements | As defined in 9.4.2.25 (Vendor Specific  element) | Zero or more elements. |

**6.3.11.2 MLME-START.request**

**6.3.11.2.2 Semantics of the service primitive**

Change the primitive parameters as follows (not all existing parameters are shown):

The primitive parameters are as follows:

MLME-START.request(

…,

EHTCapabilities,

EHTOperation,

MultiLink,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| ... |  |  |  |
| MultiLink(#**6165**) | Basic Multi-Link element | As defined in  9.4.2.312 (Multi-  Link element) | Indicates the Multi-Link parameters of  the MLD. This parameter is present if  dot11MultiLinkActivated is true and is  absent otherwise. |
| VendorSpecificInfo | A set of elements | As defined in  9.4.2.25 (Vendor  Specific element) | Zero or more elements. |

**6.3.12 Stop**

**6.3.12.2.3 When generated**

***TGbe editor: Please update the subclause as shown below***

This primitive is generated by the SME to terminate an infrastructure BSS (with the MAC entity within an AP or an MLD(#7836)) or a PBSS (with the MAC entity within the PCP). The MLME-STOP.request primitive shall be generated only after successful use of an MLME-START.confirm primitive.