**IEEE P802.11
Wireless LANs**

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| CC50 CR for clause 6 part 2 |
| **Date**: May. 14, 2025.  |
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 **Abstract**

This submission proposes resolutions for following CIDs received for TGbn CC50:

142, 143, 1383, 2854, 2855, 2856, 2857, 2858, 2847, 2849, 2851(11 CIDs)

**Revisions:**

Rev 0: Initial version of the document.

Rev 1: Remove ‘TBD’ in the Table 6-1 based on 11-25/599(PDT-MAPC)

Rev 2: some typo

Rev 3: editorial changes base on suggestion of Mark and Brian

Rev 4: editorial changes for Figure 6-7a

Rev 5: further editorial changes for Figure 6-7a

***TGbn editor: The baseline for this document is P802.11bn D0.2 and P802.11REVmeD7.0***

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

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

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 142 | 6.5.3.3.2 | 27.27 | the UHR Capabilities shall be in Beacon frame as previous generation did | please remove "TBD" | RevisedThe group has not reached any consensus on the direction whether the UHR Capabilities shall be carried in the Beacon or not. Therefore, remove “*or Beacon frame(TBD)*” to make the text clearer.**TGbn editor, please incorporate changes tagged with 142 in this document** |
| 143 | 6.5.3.3.3 | 28.29 | the UHR Capabilities shall be in Beacon frame as previous generation did | please remove "TBD" | RevisedThe group has not reached any consensus on the direction whether the UHR Capabilities shall be carried in the Beacon or not. Therefore,remove “*or Beacon frame(TBD)*” to make the text clearer.**TGbn editor, please incorporate changes tagged with 142 in this document** |
| 1383 | 6.5.3.3.3 | 28.29 | The Ultra High Reliability (UHR) subfield should be incorporated into the Neighbor Report element | As it says in the comment | **Rejected****MLME-SCAN.confirm doesn’t contain any parameter about Neighbor Report element. It’s unclear what’s the issue raised by the commenter. For the format, It has been resolved in this document** |
| 2854 | 6.5 | -- | "Specifies the parameters in the UHR Capabilities element that are sup-ported by the STA" is not clear, since it's not a question of parameter support but of feature support. It should be more like "Specifies UHR capabilities of the STA" | As it says in the comment | **Revised**Change "*Specifies the parameters in the UHR Capabilities element that are sup-ported by the STA*" to "Specifies the UHR Capabilities of the STA" for all relevant primitives**TGbn editor, please incorporate changes tagged with 2854 in this document** |
| 2855 | 6.5.7.3.2 | 29.21 | "Specifies the parameters in the UHR Capabilities element that are supported by the peer STA." -- a little confusing because the peer STA is the AP | Change to "... by the AP". Ditto for reassoc.cfm, assoc.rsp and reassoc.rsp | Accepted |
| 2856 | 6.5.7.3.2 | 29.27 | "Provides additional information for operating the UHR BSS." is weird because the STA is not operating the BSS | Change to "... for operating in the UHR BSS". Ditto for reassoc cfm | Accepted |
| 2857 | 6.5.7.4.2 | 29.21 | "Specifies the parameters in the UHR Capabilities element that are supported by the peer STA." -- a little confusing because the peer STA is the (non-AP) STA | Change to "... by the non-AP STA". Ditto for reassoc.ind | Accepted |
| 2858 | 6.5.11.2.2 | 33.26 | "Specifies the parameters in the UHR Capabilities element that are supported by the peer STA" -- no, it's the support by the starting STA | Delete "peer " | Accepted |
| 2847 | 6.3.7 | 25.20 | Per the baseline, "The Type 6 general form is used when the SME requests a process to be initiated by the MLME and the SME does not require a confirmation." so the over-the-DS communications have to start at the MLMEs, not the SMEs | As it says in the commen | Rejected.Fig 6-7a refers to example usage of Type 6, and is not attempting to enlarge the scope of Type 6 to include the OTDS communications. In that figure, the SME-to-SME communications are out-of-scope of the 802.11 std and precede the Type 6 activity. |
| 2849 | 6.3.7 | 25.23 | It is not clear why one of the STAs is "initiating" and the other "peer", since they both do the same thing, i.e. send an MLME.req | As it says in the comment | Revised.Agree with commenter that there is no difference between the STA and peer STA. Therefore, change ‘initiating STA’ to ‘STA’ in the figure 6-7a and corresponding caption**TGbn editor, please incorporate changes tagged with 2849 in this document** |
| 2851 | 6.4 | 26.06 | For MULTIAPCOORD-OVERTHEDS there's a description of when the primitives are used, but for MULTIAPCOORD-OVERTHEAIR there isn't | As it says in the comment | **Rejected.**The convention for the Comments column of Table 6-1 is to provide cross reference(s) to relevant behavioral clauses only, so the Comments cell for ULTIAPCOORDOVERTHEAIR is complete |

**Introduction：**

Some editorial changes for the clause 6

**Proposed Texts**

1. **Layer management**

**6.3.7 Type 6**

NOTE—One usage of the Type 6 form is shown in Figure 6-7a (Example usage of the Type 6 form of MLME SAP primitives, to notify the MLMEs of a(#2849) STA and peer STA of communications between the SMEs of the STAs).

*TGbn editor: please replace the figure 6-7a(above) in 802.11bn D0.2 with the figure below*



Figure 6-7a—Example usage of the Type 6 form of MLME SAP primitives, to notify the MLMEs of a(#2849) STA and peer STA of communications between the SMEs of the STAs



6.4 Table of MLME SAP interface

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Service Name | MLME-XXX | Type | References | Comments |
| Multi-AP Coordination Over-the-Air | MULTIAPCOORD-OVERTHEAIR | 1 | 9.6.7.55a (MAPC Negotiation Request frame format), 9.6.7.55b (MAPC Negotiation Response frame format) and 9.6.10 (Protected Dual of Public Action frame details) | See 37.8 (Multi-AP coordination framework) |
| Multi-AP Coordination Over-the-DS  | MULTIAPCOORD-OVERTHEDS | 6 |  9.6.7.55a (MAPC Negotiation Request frame format), 9.6.7.55b (MAPC Negotiation Response frame format) and 9.6.10 (Protected Dual of Public Action frame details) | See 37.8 (Multi-AP Coordination framework). After SMEs at initiating and peer APs establish an agreement, each SME uses the MLME interface of Type 6 to report the agreement (expressed as the union of the contents of the request and response frames) to its respective MLME. |

**6.5 MLME SAP primitive**

**6.5.3 Scan**

**6.5.3.2 MLME-SCAN.request**

**6.5.3.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-SCAN.request(

…,

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854)theUHR capabilities of the STA. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.3.3 MLME-SCAN.confirm**

**6.5.3.3.2 Semantics of the service primitive**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Type | Valid range | Description | IBSS adoption |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | The value from the UHR Capabilities element. The parameter is present if dot11UHROptionImplemented is true and an UHR Capabilities element was present in the Probe Response(#142) from which the BSSDescriptionSet was determined. Otherwise, the parameter is not present.  | Do not adopt |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | The value from the UHR Operation element. The parameter is present if dot11UHROptionImplemented is true and an UHR Operation element was present in the Probe Response(#142) from which the BSSDescriptionSet was determined. Otherwise, the parameter is not present. | Adopt |

**6.5.4 Synchronization**

**6.5.4.2 MLME-JOIN.request**

**6.5.4.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-JOIN.request(

…,

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854)theUHR capabilities of the STA. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.7 Associate**

**6.5.7.2 MLME-ASSOCIATE.request**

**6.5.7.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-ASSOCIATE.request(

...

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854)the UHR capabilities of the non-AP STA. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.7.3 MLME-ASSOCIATE.confirm**

**6.5.7.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-ASSOCIATE.confirm(

...

UHR Capabilities,

UHR Operation,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the (#2855)AP. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | Provides additional information for operating (#2856)in the UHR BSS. This parameter is present if dot11UHROptionImplemented is true; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.7.4 MLME-ASSOCIATE.indication**

**6.5.7.4.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-ASSOCIATE.indication(

...

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854)the UHR capabilities of the (#2857)non-AP STA. The parameter is present if dot11UHROptionImplemented istrue and the UHR Capabilities element is present in the Association Request frame received from the STA; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.7.5 MLME-ASSOCIATE.response**

**6.5.7.5.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-ASSOCIATE.response(

...

UHR Capabilities,

UHR Operation,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854)the UHR capabilities of the (#2855)AP. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | Provides additional information for operating (#2856)in the UHR BSS. This parameter is present if dot11UHROptionImplemented is true; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.8 Reassociate**

**6.5.8.2 MLME-REASSOCIATE.request**

**6.5.8.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-REASSOCIATE.request(

...

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the non-AP STA. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.8.3 MLME-REASSOCIATE.confirm**

**6.5.8.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-REASSOCIATE.confirm(

...

UHR Capabilities,

UHR Operation,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the (#2855)AP. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | Provides additional information for operating (#2856)in the UHR BSS. This parameter is present if dot11UHROptionImplemented is true; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.8.4 MLME-REASSOCIATE.indication**

**6.5.8.4.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-REASSOCIATE.indication(

...

UHR Capabilities,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the (#2857)non-AP STA. The parameter is present if dot11UHROptionImplemented istrue and the UHR Capabilities element is present in the Reassociation Request frame received from the STA; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.8.5 MLME-REASSOCIATE.response**

**6.5.8.5.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-REASSOCIATE.response(

...

UHR Capabilities,

UHR Operation,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the (#2855)AP. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | Provides additional information for operating (#2856)in the UHR BSS. This parameter is present if dot11UHROptionImplemented is true; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |

**6.5.11 Start**

**6.5.11.2 MLME-START.request**

**6.5.11.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-START.request(

…,

UHR Capabilities,

UHR Operation,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| … |  |  |  |
| UHR Capabilities | As defined in UHR Capabilities element | As defined in 9.4.2.xxx (UHR Capabilities element) | Specifies (#2854) the UHR capabilities of the (#2858)AP. The parameter is present if dot11UHROptionImplemented istrue; otherwise, not present. |
| UHR Operation  | As defined in UHR Operation element | As defined in 9.4.2.yyy(UHR Operation element) | Provides additional information for operating the UHR BSS. This parameter is present if dot11UHROptionImplemented is true; otherwise, not present. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.25(Vendor Specific element) | Zero or more elements. |