IEEE P802.11
Wireless LANs

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| CC50 CR for clause 9.4.2.aa2 |
| Date: 2025-05-12 |
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Abstract

This submission proposes resolutions of comments received from TGbn CC50 comments based on TGbn D0.1.

753 2946 762 2949 2950 2424 1736 2097 1536 2388 2394 3617 3377 2414 3616 476 3378 1503 1504 2415 1924 2951 3379 718 1922 2098 2412 3380 719 1923 2099 2413 2952 2953 1524 3402 2425 (37 CIDs)

Revisions:

Rev 0: Initial version of the document.

1. **Introduction**

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. The introduction and the explanation of the proposed changes are 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 802.11be 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** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 753 | Junbin Chen | 9.4.2.aa2.2 | 0.00 | The "DUO Supported field" of the UHR MAC Capabilities Information field is mentioned in 37.11, but does not exist in 9.4.2.aa2.2 yet.So does the following fields:"PUO Supported field" mentioned in P83L1,"LOM Support subfield" mentioned in P83L60,"Low Latency Indication Support field" in P86L7. | add the cooresponding fields, or at least add a editorial notes as a reminder. | Revised-Agree with the comment in principle, add the missing capability fields.Apply the changes marked as #753 in this document. |
| 2946 | Mark RISON | 9.4.2.aa1 | 0.00 | The font size for "s" (2x) seems too small | As it says in the comment | Rejected-The comment failed to identify the technical issue and location of small font size. |
| 762 | Junbin Chen | 9.4.2.aa2.2 | 37.60 | Subfield B2 is defined as "Multi-Link Power Management" in the Figure 9-aa5, while changed to "Multi-Link Power Management Support" in Table 9-130a that is also used in the 37.9.2. The text should be unified. | as commented | Revised-Agree with the comment, change it to "Multi-Link Power Management Support".Apply the changes marked as #762 in this document. |
| 2949 | Mark RISON | 9.4.2.aa2.1 | 60.25 | "The UHR MAC Capabilities Information, UHR PHY Capabilities Information are defined in the subclauses below." comma should be and, and missing "fields" | As it says in the comment | Revised-Agree with the comment. Apply the changes marked as #2949 in this document. |
| 2950 | Mark RISON | 9.4.2.aa2.2 | 60.36 | If the Reserved field is 3 bits then the superfield is not a multiple of 8 bits | Change 3 to 2 and Bx to B7 | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 2424 | Manasi Ekkundi | 9.4.2.aa2.2 | 60.37 | DUO Support field is not present in UHR MAC Capabilities Information field - Figure 9-aa5 | Figure 9-aa5 needs to be modified to include DUO Support indication. | Revised-Agree with the comment in principle. Add DUO Support capability to the UHR MAC Capabilities Information field.Apply the changes marked as #2424 in this document. |
| 1736 | Kosuke Aio | 9.4.2.aa2.2 | 60.38 | This diagram makes it look like the frame size has been decided, but further discussion will lead to the need to add more fields to this frame. | Please change the frame format to something like "UHR PHY Capability". | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 2097 | Vishnu Ratnam | 9.4.2.aa2.2 | 60.39 | Suggest to change the name of "NPCA Supported" field to "NPCA Support" field to be consistent with other fields like "DPS Support". | As in comment. | Revised-Agree with the comment in principle. To TGbn editor, please change "NPCA Supported" to "NPCA Support" through the whole TGbn draft 0.2.Apply the changes marked as #2097 in this document. |
| 1536 | yajun CHENG | 9.4.2.aa2.2 | 60.40 | Typo: B2 in UHR MAC Capabilities Information field format,"Multi-Link Power Management Support" instead of "Multi-Link Power Management". | As in comment. | Revised-Agree with the comment in principle. Apply the changes marked as #1536 in this document. |
| 2388 | Ahmadreza Hedayat | 9.4.2 | 60.40 | Add to UHR MAC Capabilities: Low Latency Indication Support field | As in comment | Revised-Agree with the comment in principle. Add Low Latency Indication Support capability to the UHR MAC Capabilities Information field.Apply the changes marked as #2388 in this document. |
| 2394 | Yuki Fujimori | 9.4.2.aa2.2 | 60.40 | In the Figure 9-aa5 --UHR MAC Capabilities Information field format, fix "NPCA Supported" field to "NPCA Support" field. "Support" field is usually used to indicate a support of a feature. | As in the comment. Same for Table 9-130a--Subfields of the UHR MAC Capabilities Information field. | Revised-Agree with the comment in principle. To TGbn editor, please change "NPCA Supported" to "NPCA Support" through the whole TGbn draft 0.2.Apply the changes marked as #2394 in this document. |
| 3617 | James Yee | 9.4.2.aa2.2 | 60.40 | For style consistency, "NPCA Supported" should be "NPCA Support" throughout. | As suggested | Revised-Agree with the comment in principle. To TGbn editor, please change "NPCA Supported" to "NPCA Support" through the whole TGbn draft 0.2.Apply the changes marked as #3617 in this document. |
| 3377 | Zhenpeng Shi | 9.4.2.aa2.2 | 60.42 | It is TBD how many bits the UHR MAC Capabilities Information field includes. | Change the bits of "Reserved" from "3" to "Y" in Figure 9-aa5. | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 2414 | Manasi Ekkundi | 9.4.2.aa2.2 | 60.43 | The number of bits in Reserved should be TBD in Figure 9-aa5 | Reserved Field should be marked as TBD bits for now | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 3616 | James Yee | 9.4.2.aa2.2 | 60.43 | The # of bits in the Reserved subfield should be "TBD" instead of 3. | As suggested | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2To TGbn editor, no further change is needed for this comment. |
| 476 | Peshal Nayak | 9.4.2.aa2.2 | 60.44 | Either use the word support or supported across the different fields in Fig. 9-aa5 to maintain uniformity. E.g., B1 is named as DPS Assisting Support but B4 is named as NPCA Supported | As in comment | Revised-Agree with the comment in principle. Apply the changes marked as #476 in this document. |
| 3378 | Zhenpeng Shi | 9.4.2.aa2.2 | 60.47 | "EHT MAC" should be "UHR MAC". | As in comment. | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 1503 | Dongju Cha | 9.4.2.aa2.2 | 60.48 | typo in "EHT MAC Capabilities Information" | Change "EHT MAC Capabilities Information" to "UHR MAC Capabilities Information" | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2.To TGbn editor, no further change is needed for this comment. |
| 1504 | Dongju Cha | 9.4.2.aa2.2 | 60.48 | To make alignment with other features that is defined in UHR MAC Capabilities Information field, it is better to change to "NPCA Support" field | As in comment | Revised-Agree with the comment in principle. Apply the changes marked as #1504 in this document. |
| 2415 | Manasi Ekkundi | 9.4.2.aa2.2 | 60.48 | There is a typo. EHT MAC Capabilities Information field instead of UHR MAC Capabilties Information field. | "The fields of the UHR MAC Capabilities Information field are defined in Table 9-130a (Subfields of the UHR MAC Capabilities Information field)." | Revised-Agree with the comment in principle. The corresponding change was made in 802.11bn D0.2To TGbn editor, no further change is needed for this comment. |
| 1924 | Yingqiao Quan | 9.4.2.aa2 | 60.52 | The sentences in column "Definition" of Table 9-130a--Subfields of the UHR MAC Capabilities Information field lack full stop. | Add a full stop to each sentence in column "Definition" of Table 9-130a--Subfields of the UHR MAC Capabilities Information field. | Revised-Agree with the comment in principle. Apply the changes marked as #1924 in this document. |
| 2951 | Mark RISON | 9.4.2.aa2.2 | 60.52 | It's confusing to have DPS Assisting Support but also DPS Support -- can you do the former but not the latter? | Change to "DPS Assisted Support" | RevisedAgree with the comment in principle. To TGbn editor, change "DPS Support " to "DPS Assisted Support" throught the 802.11bn draft 0.2.Apply the changes marked as #2951 in this document. |
| 3379 | Zhenpeng Shi | 9.4.2.aa2.2 | 60.52 | According to 37.11, UHR MAC Capabilities Information should also include DUO Supported field, PUO Supporting AP field, and PUO Support field. | Add DUO Supported, PUO Supporting AP, and PUO Support as subfields in Table 9-130a and Figure 9-aa5. | Revised-Agree with the comment in principle. Apply the changes marked as #3397 in this document. |
| 718 | Chien-Fang Hsu | 9.4.2.aa2.2 | 60.57 | The MIB name "dot11DynamicPowerSaveSupport" is inconsistent with "dot11UHRDPSSupported" used in 37.9.1 | Change "dot11DynamicPowerSaveSupport" to "dot11UHRDPSSupported" | Revised-Agree with the comment in principle. To TGbn editor, change "dot11DynamicPowerSaveSupport" and “dot11UHRDPSSupported” to "dot11DPSAssistedSupport" throught the 802.11bn draft 0.2Apply the changes marked as #718 in this document. |
| 1922 | Yingqiao Quan | 9.4.2.aa2 | 60.57 | For Table 9-130a--Subfields of the UHR MAC Capabilities Information field, suggest to change "Indicates whether or not DPS is supported" to "Indicates support for DPS operation as a DPS AP or DPS non-AP STA." | As in comment. | Rejected-The comment failed to identy the technical issue. It doesn't need to call AP and non-AP STA explicitly. |
| 2098 | Vishnu Ratnam | 9.4.2.aa2.2 | 60.57 | In Table 9-130a change the Definition of DPS Support to "Indicates whether or not DPS operation is supported". | As in comment. | Revised-Agree with the comment in principle. Apply the changes marked as #2098 in this document. |
| 2412 | Manasi Ekkundi | 9.4.2.aa2.2 | 60.57 | The UHR MAC Capabilities Information field uses dot11DynamicPowerSaveSupport while the section 37.9.1 used dot11UHRDPSSupported to set DPS Support. Naming needs to be harmonized. | Change "dot11DynamicPowerSaveSupport" to "dot11UHRDPSSupported" | Revised-Agree with the comment in principle. To TGbn editor, change "dot11DynamicPowerSaveSupport" and “dot11UHRDPSSupported” to "dot11DPSAssistedSupport" throught the 802.11bn draft 0.2.Apply the changes marked as #2412 in this document. |
| 3380 | Zhenpeng Shi | 9.4.2.aa2.2 | 60.57 | In Table 9-130a, naming of the subfields is not consistent, some capabilities are named as "XXX Support" (e.g., DPS Support) whereas others are named as "XXX Supported" (e.g., NPCA Supported). | Choose one consistent naming scheme for the subfields in Table 9-130a, either "XXX Support" or "XXX Supported". | Revised-Agree with the comment in principle. To TGbn editor, please change "NPCA Supported" to "NPCA Support" through the whole TGbn draft 0.2.Apply the changes marked as #3380 in this document. |
| 719 | Chien-Fang Hsu | 9.4.2.aa2.2 | 60.62 | The MIB name " dot11DynamicPowerSaveAssistingSupport" is inconsistent with "dot11UHRDPSAssistingSupported" used in 37.9.1 | Change " dot11DynamicPowerSaveAssistingSupport" to "dot11UHRDPSAssistingSupported" | Revised-Agree with the comment in principle. To TGbn editor, change "dot11DynamicPowerSaveAssistingSupport" and “dot11UHRDPSAssistingSupported” to "dot11DPSAssistingSupport" throught the 802.11bn draft 0.2.Apply the changes marked as #719 in this document. |
| 1923 | Yingqiao Quan | 9.4.2.aa2 | 60.62 | For Table 9-130a--Subfields of the UHR MAC Capabilities Information field, suggest to change "Indicates whether or not the transmission of an ICF for DPS is supported" to "Indicates support for DPS operation as a DPS assisting non-AP STA or a DPS assisting AP." | As in comment. | Rejected-The comment failed to identify the technical issue. The original description is clean. |
| 2099 | Vishnu Ratnam | 9.4.2.aa2.2 | 60.62 | In Table 9-130a change the Definition of DPS Assisting Support to "Indicates whether or not the transmission of an ICF for enabling DPS transition at a peer STA is supported". | As in comment. | Accepted- |
| 2413 | Manasi Ekkundi | 9.4.2.aa2.2 | 60.62 | The UHR MAC Capabilities Information field uses dot11DynamicPowerSaveAssisting-Support while the section 37.9.1 used dot11UHRDPSAssistingSupported to indicate DPS Assisting Support. Naming needs to be harmonized. | Change "dot11DynamicPowerSaveAssisting-Support" to "dot11UHRDPSAssistingSupported" | Revised-Agree with the comment in principle. To TGbn editor, change "dot11DynamicPowerSaveAssistingSupport" and “dot11UHRDPSAssistingSupported” to "dot11DPSAssistingSupport" throught the 802.11bn draft 0.2.Apply the changes marked as #2413 in this document. |
| 2952 | Mark RISON | 9.4.2.aa2.2 | 61.05 | "Indicates whether or not the multi-link power management is supported" -- spurious article | As it says in the comment | Revised-Agree with the comment in principle. Apply the changes marked as #2952 in this document. |
| 2953 | Mark RISON | 9.4.2.aa2.2 | 61.05 | Is an EHT STA required to be an MLD? I think not, no? | Add "Reserved for a non-MLD" | Revised-Agree with the comment in principle. Apply the changes marked as #2953 in this document. |
| 1524 | Xiandong Dong | 9.4.2.aa2.2 | 61.07 | the multi-link power management signal needs to be clarified. | as in comment | Rejected-The comment failed to identify the technical issue. It is not clear what the comment refers to. |
| 3402 | Gaurang Naik | 9.4.2.aa2 | 61.16 | Clarify that the NPCA Supported field applies to both AP and non-AP STA. | Modify asSet to 1 to indicate that NPCA operation issupported by the STA (AP or non-AP)Set to 0 to indicate that NPCA operation is notsupported by the STA (AP or non-AP). | Rejected-The comment failed to identify the technical issue. The clarification is not needed, and is described in clause 37.11. |
| 2425 | Manasi Ekkundi | 9.4.2.aa2.2 | 61.27 | DUO Support field is not present in UHR MAC Capabilities Information field - Table 9-130a | "DUO Support Subfield to be added. Description: Indicates whether or not DUO is supported Encoding: Set to 1 if dot11DUOOptionImplemented in a STA that is allowed to operate in DUO mode." | Revised-Agree with the comment in principle. Apply the changes marked as #2425 in this document. |

**Discussion:** None.

***TGbn Editor: please modify the following paragraph in 802.11bn 0.2***

* UHR Capabilities element
* General

A STA declares that it is a UHR STA by transmitting the UHR Capabilities element.

The UHR Capabilities element contains a number of fields that are used to advertise the UHR capabilities of a UHR STA. The UHR Capabilities element is defined in Figure9-aa4 (UHR Capabilities element format).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extension | UHR MAC Capabilities Information | UHR PHY Capabilities Information |
| Octets: | 1 | 1 | 1 | TBD | TBD |
| * UHR Capabilities element format
 |

The Element ID, Length, and Element ID Extension fields are defined in 9.4.2.1 (General).

The UHR MAC Capabilities Information field and UHR PHY Capabilities Information field (#2949) are defined in the subclauses below.

* UHR MAC Capabilities Information field

The format of the UHR MAC Capabilities Information field is defined in Figure9-aa5 (UHR MAC Capabilities Information field format).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 | B1 | B2 | B4 | B5 | B6 | B7 B8 |
|  | DPS Assisted Support (#2951) | DPS Assisting Support | Multi-Link Power ManagementSupport (#1536) | NPCA Support(#2097, 2394, 3617, 476, 1504, 3380) | BSR Enhancement Support | Additional Mapped TID Support | DUO Support |
| Bits: | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  | B9 | B10 | B11 | B12 Bx |
|  | PUO Support | Low Latency Indication Support | DSO Support | Reserved |
| Bits: | 1 | 1 | 1 | x |
| * UHR MAC Capabilities Information field format (#753, 762, 2424, 2388, 3397,2425)
 |

The subfields of the UHR MAC Capabilities Information field are defined in Table9-130a (Subfields of the UHR MAC Capabilities Information field).

|  |
| --- |
| * Subfields of the UHR MAC Capabilities Information field  (#753)
 |
| Subfield | Definition | Encoding |
| DPS Assisted Support (#2951) | Indicates whether or not DPS operation (#2098) is supported. (#1924) | Set to 1 if dot11DPSAssistedSupport (#718, 2412) is true (see 37.10.1 (Dynamic power save (DPS) operation)).Set to 0 otherwise. |
| DPS Assisting Support | Indicates whether or not the transmission of an ICF for DPS operation is supported. (#1924) | Set to 1 if dot11DPSAssistingSupport (#719, 2413) is true (see 37.10.1 (Dynamic power save (DPS) operation)).Set to 0 otherwise. |
| Multi-Link Power Management Support | Indicates whether or not (#2952) multi-link power management is supported. (#1924) | For an AP MLD Set to 1 if the AP MLD supports the reception of frames with the multi-link power management signal. Set to 0 otherwise.For a non-AP MLD Set to 1 if the non-AP MLD supports the transmission of frame with multi-link power management signal. Set to 0 otherwise.Reserved for a non-MLD (#2953). |
| NPCA Support(#2097, 2394, 3617, 3380) | Indicates whether NPCA operation is supported. (#1924) | Set to 1 to indicate that NPCA operation is supported.Set to 0 to indicate that NPCA operation is not supported. |
| BSR Enhancement Support | For an AP, indicates support for receiving a frame with a BSR Enhancement field. For a non-AP STA, indicates support for transmitting a frame with a BSR Enhancement field. | Set to 1 if supported.Set to 0 otherwise. |
| Additional Mapped TID Support | Indicates whether the STA supports the mapping of up to one additional TID from AC\_BE and up to one additional TID from AC\_BK to AC\_VO and AC\_VI access categories for an SCS stream.  | For a UHR STA that has set the SCS Traffic Description Support subfield in the EHT Capabilities element to 1:Set to 1 to indicate that the STA supports mapping of up to one additional TID from AC\_BE and up to one additional TID from AC\_BK to AC\_VO and AC\_VI access categories for an SCS stream (see 37.18 (UHR SCS procedure)). Set to 0 otherwise.  |
| DUO Support | Indicates support for DUO mode. | Set to 1 to indicate that DUO mode is supported.Set to 0 to indicate that DUO mode is not supported. (#753, 762, 2424, 2388, 3397,2425) |
| PUO Support | Indicates support for PUO mode. | Set to 1 to indicate that PUO mode is supported.Set to 0 to indicate that PUO mode is not supported. (#753, 762, 2424, 2388, 3397,2425) |
| LOM support | Indicates support for LOM. | Set to 1 to indicate that LOM is supported.Set to 0 to indicate that LOM is not supported. (#753, 762, 2424, 2388, 3397,2425) |
| Low Latency Indication Support | Indicates support for low latency indication | Set to 1 to indicate that low latency indication is supported.Set to 0 to indicate that low latency indication is not supported. |
| DSO SupportInd | Indicates support for DSO  | Set to 1 to indicate that DSO is supported.Set to 0 to indicate that DSO is not supported. |

**37.12.3 Non-AP STA periodic unavailability operation (PUO) mode**

Periodic unavailability operation (PUO) allows a non-AP STA to indicate, to its associated AP, that the STA will be unavailable during periodic service periods.

A UHR AP that supports PUO is called a PUO Supporting AP and shall set the PUO Support field of the UHR MAC Capabilities Information field of the UHR Capabilities that it transmits to 1. A PUO Supporting AP shall have dot11ChannelUsageActivated equal to true and shall set the Peer-to-peer TWT Support field in the Extended Capabilities elements that the AP transmits to 1.

**37.19 Dynamic Subband Operation**

A non-AP STA that supports dynamic subband operation (DSO) is called a DSO non-AP STA and shall set the DSO Support field of the UHR MAC Capabilities Information field of the UHR Capabilities element to 1. An AP that supports DSO is called a DSO AP and shall set the DSO Support field of the UHR MAC Capabilities Information field of the UHR Capabilities element to 1.

Change Table 9-212 (Optional subelement IDs for Neighbor Report) (not all lines shown) as follows: (#3847)

|  |
| --- |
| Table 9-212—Optional subelement IDs for Neighbor Report |
| Subelement ID | Name | Extensible |
| … |  |  |
| 202 | UHR Capabilities | Yes |
| 203 | UHR Capabilities | Yes |
| 204-220 | Reserved |  |

***Insert the following paragraphs after the 62th paragraph (“The SSID subelement has the same format...”):*** (#3847)

The Data field of the UHR Capabilities subelement has the same format as the Information field of the UHR Capabilities element defined in 9.4.2.aa1 (UHR Capabilities element).

The Data field of the UHR Operation subelement has the same format as the Information field of the UHR Operation element defined in 9.4.2.aa2 (UHR Operation element).