IEEE P802.11  
Wireless LANs

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| Proposed Comment Resolutions for NSEP Priority Access (11be D0.3) | | | | |
| Date: 2021-02-12 | | | | |
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**Abstract**

This document proposes comment resolutions for the following CIDs (32) on NSEP Priority Access from the 80.11be D0.3 comment collection 34 (CC34):

1008, 1119, 1127, 1463, 1467, 1469, 1470, 1471, 1472, 1488, 1504, 1505, 1705, 1706, 1707, 1708, 1709, 1734, 1735, 1835, 2171, 2304, 2305, 2306, 2565, 2569, 2570, 2571, 2821, 2893, 2902, 3038

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.**

\*\*\* Only Resolution column needs to be updated if there is a revision text or comment is rejected \*\*\*\*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause Number(C)** | **Page/Line** | **Comment** | **Proposed Change** | **Resolution** | |
| 1008 | Abhishek Patil | 9.4.1.9 | 61.25 | NSEP can apply to a non-AP MLD. Update the describing under the 'Meaning' column to include non-AP MLD | As in comment | **Revised and addressed by CID #1472** | |
| 1119 | Alfred Asterjadhi | 9.4.1.11 |  | Two different Action variants each of which currently using less than 1 pct (like 2 max) of available (255 of them). Suggest moving NSEP actions under EHT actions. Also please specify whether these are protected (do we have any EHT ones that are protected?) or non-protected action frames once the merging is done. | As in comment. | **Revised.**  **Editor: Please delete Clause 9.6.34 and create 9.6.36 (Protected EHT Action frame details) as described in the proposed text in this document. In addition, update Clauses 35.10.2.2.2 and 35.10.2.2.3 as described in this document (Note: this change also addresses CIDs #2565, #2569).** | |
| 2565 | Rojan Chitrakar | 9.4.1.11 |  | Why is the NSEP Priorty Access Action frame not under EHT Action frames? Is there any specific reason to take up one extra Category value? If not, NSEP frames should be defined as one of the EHT Action frames to be consistent with HT, VHT, HE way of defining new action frames. | Delete the category for NSEP Priority Service. Define the NSEP Priorty Access Action frame as one of the EHT Action frames under the EHT category. | **Revised and addressed by**  **CID #1119.** | |
| 2569 | Rojan Chitrakar | 9.6.34 |  | Why is the NSEP Priorty Access Action frame not under EHT Action frames? Is there any specific reason? If not, it should be defined as one of the EHT Action frames to be consistent with HT, VHT, HE way of defining new action frames. | Define the NSEP Priorty Access Action frame as one of the EHT Action frames. | **Revised and addressed by**  **CID #1119.** | |
| 2570 | Rojan Chitrakar | 9.6.34 |  | Why is the the NSEP Action field value of 0 reserved? | The NSEP Action field values should start from 0 and not from 1. | **Revised and addressed by**  **CID #1119.** | |
| 2571 | Rojan Chitrakar | 9.6.34 |  | Why is the the NSEP request type value of 0 reserved? | The NSEP request type values should start from 0 and not from 1. | **Revised and addressed by**  **CID #1119.** | |
| 1127 | Alfred Asterjadhi | 9.6.34.2 |  | Unclear when an NSEP request with Disable is sent. Is it from non-AP STA side or from AP side? In particular, if AP sends a request to disable for a STA can the STA say no I don't want to disable? Please clarify? Cleanest way is to have a teardown I think. | As in comment. | **Revised and addressed by**  **CID #1119.** | |
| 1488 | Dibakar Das | 9.6.34.2 |  | The NSEP Action Request and Response frames merely contan an (a) Enable/Disable signaling, (b) Dialog Token and ( c ) Status Code. These functions are common to other similar Action frames for QoS signaling (e.g., SCS Reqquest/Response frames). This is then mostly a duplication of existing signaling | (a) signal parameters of NSEP Request enable and disable frames by creating two new Request Type field values inside the SCS Descriptor element in an SCS Request frame, (b) signal the functionality of NSEP Response frames inside an SCS Response frame, (c) make changes in clause 11 to accomodate (a) and (b). | **Rejected.**  **This resolution is incompatible with CIDs #1119, #1127, #2565, and #2569.** | |
| 1734 | Hanseul Hong | 9.6.34.2 |  | It is requesting 'NSEP priority access' | Change 'requesting STA to request a priority access' to 'requesting STA to request a NSEP priority access' | **Revised and addressed by**  **CID #1119.** | |
| 1735 | Hanseul Hong | 9.6.34.2 |  | It seems like a field, rather than an element | Change 'NSEP Request Type element format' to 'NSEP Request Type field format' | **Revised and addressed by**  **CID #1119.** | |
| 1835 | Jarkko Kneckt | 9.6.34.2 |  | NSEP assumes that non-AP STA an AP have a separate authentication and setup signaling before the NSEP may be used. This authentication signaling should also set NSEP prioritization into use. No need for additional request - response signaling to finally take NSEP into use. I see very little value to perform NSEP authentication, but not use the NSEP prioritization . | Please clarify the purpose of the NSEP request and response signaling or delete the frames. It would be good if the | **Revised and addressed by**  **CID #1119.** | |
| 2821 | Srinivas Kandala | 9.6.34.2 |  | Is there a reason why a value of 0 is reserved for NSEP Request Type? It is rather unusual to have 0 as reserved and use 1 for Enable | Make 0 as Enable, 1 as Disable and have the rest as reserved | **Revised and addressed by**  **CID #1119.** | |
| 1463 | Chunyu Hu | 35.10.1 | 148.13 | Need clarification | What information it is as in "the AP obtains information required to"? | **Rejected:**  **Referring to process for SSPN, which is referenced in the same sentence. Specifics are out of scope.** |
| 1467 | Dibakar Das | 35.10.2.2.2 | 149.48 | "NSEP priority access"-> Is it a field, a feature or a MIB variable ? | Clarify | **Revised,**  **Added a sentence at the start of Section 35.10.1.**  **Editor: Please add the following sentence at the beginning of Clause 35.10.1: General, page 148:**  NSEP priority access is a capability designed to provide prioritized access to system resources for authorized users to increase their probability of successful communication during periods of network congestion. |
| 1469 | Dibakar Das | 35.10.2.2.3 | 151.01 | Is it possible for non-AP to also reject a request from an unauthorized AP ? If not, why not make it a "shall" statement ? | Clarify | **Revised:**  **Editor: Please add the following sentence at the end of line 2 in page 151, Clause 35.10.2.2.3, (2)**  If instructed by a higher layer function to reject the NSEP priority access, the non-AP MLD or non-AP EHT STA may set the Status Code field with a value of NSEP\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field). |
| 1471 | Dibakar Das | 35.10.3 | 151.35 | What happens to the traffic if the non-AP STA rejects it ? | clarify | **Revised and addressed**  **by CID #1469** |
| 1470 | Dibakar Das | 35.10.3 | 151.35 | Why is it only allowed for an AP STA and not a non-AP STA ? | Clarify | **Revised**  **Editor: Please replace the line 34 “The AP shall ensure that only authorized non-AP STAs can invoke NSEP priority access” in line 34, page 151, Clause 35.10.3 with the following :**  The AP MLD or EHT AP shall ensure that only authorized non-AP MLDs or non-AP EHT STAs can invoke NSEP priority access. Non-AP MLDs and non-AP EHT STAs shall only apply NSEP priority access treatment after being authorized. |
| 1472 | Dibakar Das | 35.10.3 | 151.35 | Since Priority access is the concern, the NSEP procedure should be at MLD level to take advantage of MLO operations. | As in comment | **Revised**  **Editor: Please make the following changes throughout Sections 9.6.36 and 35.10:**   * **Change “AP” to** “AP MLD or EHT AP” * **Change “**non-AP STA” to “non-AP MLD or non-AP EHT STA” * Change “STA” to “MLD or EHT STA” |
| 1504 | Dibakar Das | 35.10.1 | 148.06 | "A STA with a value of true for dot11EHTNSEPPriorityAccessActivated shall set to 1 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits and is capable of invoking NSEP priority access." -> Re-word to say something to the lines of "a STA that is capable of x, shall set y to z". Also, the next line. | as in comment. | Revised  **Editor: Please delete lines 6-11, page 148, Clause 35.10.1 and replace with the following:**  An MLD or EHT STA that supports NSEP priority access operations shall have value of true for dot11EHTNSEPPriorityAccessActivated and shall set to 1 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits. An MLD or EHT STA does not support NSEP priority access operations shall have a value of false for dot11EHTNSEPPriorityAccessActivated shall set to 0 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits. |
| 3038 | Xiaofei Wang | 35.10.1 | 0.00 | "invoking NSEP priority access" is not precise, suggest to change to "support NSEP priority access operations" |  | **Revised and addressed by**  **CID #1504.** |
| 1505 | Dibakar Das | 35.10.2 | 148.40 | If an RSNA is established among two STAs that are MFPC, then I assume Management Frame protection must take place for all robust Action frames. If so, its clearer to directly say that NSEP Priority Acces frames can be only set to a peer STA if both sides have set up RSNA and are MFP capable. | Change to "A STA shall only send NSEP Priority Access frames to an associated peer STA if both STAs are MFP capable". | **Revised.**  **Editor: Please update the line 39 in page 148, Clause 35.10.2.1 with the following:**  An MLD or EHT STA shall only send NSEP Priority Access frames to an associated peer MLD or EHT STA if both are MFP capable. |
| 1705 | GEORGE CHERIAN | 35.10.2.2.2 | 149.54 | NSEP Priority Access Request should not be sent to an AP that does not support NSEP. Add the condition. Similar comment for disablement part as well. | As in the comment | **Rejected:**  **Text in Clause 35.10.2.2.2, line 47 already says "… with dot11EHTNSEPPriorityAccessActivated set to true"** |
| 1706 | GEORGE CHERIAN | 35.10.2.2.2 | 149.56 | Remove (2). Limit the initiating STA to be Non-AP STA. Similar comment for disablement part as well. | As in the comment | **Rejected**  **This would prevent AP from initiating priority for incoming traffic to an non-AP STA which is one of the important requirements.** |
| 1707 | GEORGE CHERIAN | 35.10.2.2.3 | 151.01 | Remove: If the receiving STA is a non-AP STA, the receiving non-AP STA should set the Status Code field with a value of SUCCESS. | As in the comment | **Rejected:**  **This would prevent AP from initiating priority for incoming traffic to an non-AP STA as mentioned in CID #1707.** |
| 1708 | GEORGE CHERIAN | 35.10.2.2.3 | 151.10 | "If the Status Code in the MLME-NSEPPRIACCESS.response primitive is equal to a value other than SUCCESS, the receiving STA shall not apply NSEP priority access to subsequently transmitted NSEP traffic.": Need to specify some re-attempt rules, so that there will not be back-to-back re-attempts | As in the comment | **Revised.**  **Editor: Please add the following text to after the last sentence on line 10, page 150, in Clause 35.10.2.2:**  The higher-layer function that triggers the NSEP priority access is responsible for managing reattempts after receiving responses with a value other than SUCCESS. |
| 1709 | GEORGE CHERIAN | 35.10.3 | 151.29 | Define the TBD procedure. Use AC\_VO for NSEP traffic. | As in the comment | **Revised.**  **Addressed in contribution 11-21-0555** |
| 2171 | Laurent Cariou | 35.10.3 | 0.00 | NSEP priority access has to be defined. Simplest mechanism seems to be that the AP (MLD) sends the new EDCA parameters in the NSEP setup to the STA (non-AP MLD), and the STA is allowed to use these new parameters instead of the ones that are advertized in beacons or were previously sent in association response while the NSEP mode is accepted and active. | as in comment | **Revised.**  **Addressed in contribution 11-21-0555** |
| 2304 | Michael Montemurro | 35.10.1 | 148.19 | "home realm information" is not defined in IEEE 802.11. Home realm information can be an NAI realm or 3GPP Cellular Network information (i.e. an HPLMN). | Define home realm infomration to include an NAI realm or PLMN. Alternativelty, the Network Access Identifier could be supplied. | **Rejected.**  **“Home realm” is used in the base standard so it would be better for its definition to be addressed in REVme".** |
| 2305 | Michael Montemurro | 35.10.1 | 148.27 | Its sufficient just to say beyond the scope of the standard | Change "are vendor specific and thus out of scope" to "are beyond the scope of this standard". | **Revised.**  **Editor: Please replace line 28, page 148, Clause 35.10.1 with the following:**    Other methods of obtaining this authorization information are beyond the scope of this standard. |
| 2306 | Michael Montemurro | 35.10.3 | 151.32 | Priority access would be handled on transmission.through classification and queing | Change "NSEP traffic" to "NSEP traffic transmission" | **Revised.**  **Editor: Please update lines 32-33 in page 151, Clause 35.10.3 with the following:**  If the negotiation to enable NSEP priority access between an AP STA and a non-AP STA is successful, then both the AP STA and the non-AP STA shall apply NSEP priority access treatment to the transmission of NSEP traffic using a TBD procedure |
| 2893 | Stephen McCann | R.4.2.4 | 386.44 | NSEP priority access does not need to be defined for an EHT STA. It can be defined for any STA and therefore NSEP can be present in the extended capabilities element. | This change is not necessary. Add the NSEP priority access to the extended capabilties element and remove the new text from this clause. | **Rejected.**  **The Task Group consensus was to make this an EHT feature.** |
| 2902 | Stephen McCann | 35.1 | 148.01 | NSEP would be better defined within Clause 11. It's not an essential feature to allow operation of an EHT STA. Moving it to clause 11 would allow it to operate with legacy PHYs such as 11ac and 11ax. | Move the NSEP priority access to clause 11. In addition the controlling MIB values do not need to be bound to EHT. | **Rejected.**  **The Task Group consensus was to make this an EHT feature.** |

\*\*\* Need to reflect the Resolution in the following Clauses \*\*\*\*

**9.4.1.9 Status Code field**

**Table 9-50—Status codes**

|  |  |  |
| --- | --- | --- |
| **Status code** | **Name** | **Meaning** |
| <ANA> | DENIED\_STA\_AFFILIATED\_WITH\_MLD\_WITH\_EXISTING\_MLD\_ASSOCIATION | Association denied because the requesting STA is affiliated with a non-AP MLD that is associated with the AP MLD. |
| <ANA> | NSEP\_DENIED\_UNAUTHORIZED | NSEP priority access denied because the non-AP MLD or non-AP EHT STA is not authorized to use the service. |
| <ANA> | NSEP\_DENIED\_OTHER\_REASON | NSEP priority access denied due to reason outside the scope of this standard. |

**~~9.6.34 NSEP EHT Action frame details~~ [#1119, #1488, #1734, #1735, #1835, #2565, #2569, #2570, #2571, #2821]**

**~~9.6.34.1 General~~**

~~NSEP priority access is an on-demand service that is enabled and disabledas appropriate, as instructed by a higher layer function.[1835] Two Action frame formats are defined for NSEP priority access. These frames are identified by the single~~

~~octet NSEP Action field, which follows immediately after the Category field. The values of the NSEP~~

~~Action field are defined in Table 9-526m (NSEP Action field values).~~

**~~Table 9-526m—NSEP Action field values~~**

|  |  |
| --- | --- |
| **~~QoS Action field value~~** | **~~Meaning~~** |
| ~~0~~ | ~~Reserved~~ |
| ~~1~~ | ~~NSEP priority access request~~ |
| ~~2~~ | ~~NSEP priority access response~~ |
| ~~3-255~~ | ~~Reserved~~ |

**~~9.6.34.2 NSEP Priority Access Request frame format~~**

~~The NSEP Priority Access Request frame is transmitted by a requesting STA to request a priority access related action from another STA. The format of the NSEP Priority Access Request frame Action field is shown in Table 9-526n (NSEP Priority Access Request frame Action field format).~~

**~~Table 9-526n—NSEP Priority Access Request frame Action field format~~**

|  |  |
| --- | --- |
| **~~Order~~** | **~~Meaning~~** |
| ~~1~~ | ~~Category~~ |
| ~~2~~ | ~~NSEP action~~ |
| ~~3~~ | ~~Dialog token~~ |
| ~~4~~ | ~~Request type~~ |

~~The Category field is defined in 9.4.1.11 (Action field).~~

~~The NSEP Action field is defined in 9.6.34 (NSEP Priority Access Action frame details).~~

~~The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.~~

~~The NSEP Request Type field specifies the particular action sought by the requesting STA. The format of~~

~~the NSEP Request Type field is shown in Figure 9-970b (NSEP Request Type element format). The defined NSEP request type values are shown in Table 9-526o (NSEP request type definition).~~

|  |
| --- |
| ~~NSEP Request Type~~ |

~~Octets: 1~~

**~~Figure 9-970b—NSEP Request Type element format~~**

**~~Table 9-526o—NSEP request type definition~~**

|  |  |
| --- | --- |
| **~~Order~~** | **~~Meaning~~** |
| ~~Reserved~~ | ~~0~~ |
| ~~Enable~~ | ~~1~~ |
| ~~Disable~~ | ~~2~~ |
| ~~Reserved~~ | ~~3–255~~ |

**~~9.6.34.3 NSEP Priority Access Response frame format~~**

~~The NSEP Priority Access Response frame is transmitted in response to a NSEP Priority Access Request~~

~~frame. The format of the NSEP Priority Access Response frame Action field is shown in Table 9-526p~~

~~(NSEP Priority Access Response frame Action field format).~~

**~~Table 9-526p—NSEP Priority Access Response frame Action field format~~**

|  |  |
| --- | --- |
| **~~Order~~** | **~~Meaning~~** |
| ~~1~~ | ~~Category~~ |
| ~~2~~ | ~~NSEP action~~ |
| ~~3~~ | ~~Dialog token~~ |
| ~~4~~ | ~~Status code~~ |

~~The Category field is defined in 9.4.1.11 (Action field).~~

~~The NSEP Action field is defined in 9.6.34 (NSEP Priority Access Action frame details).~~

~~The Dialog Token field value is copied from the Dialog Token field in the corresponding NSEP Priority~~

~~Access Request frame.~~

~~The status code values are defined in Table 9-50 (Status codes).~~

### **9.6.36 Protected EHT Action frame details [CIDs #1119, #1488, #2565]**

**9.6.36.1 Protected EHT Action field**

A Protected EHT Action field, in the octet immediately after the Category field, differentiates the Protected EHT Action frame formats. The Protected EHT Action field values associated with each frame format within the Protected EHT category are defined in Table 9-X (Protected EHT Action field values).

### Table 9-X— Protected EHT Action field values

|  |  |
| --- | --- |
| **Value** | **Meaning** |
| <ANA> | NSEP Request |
| <ANA> | NSEP Response |
| <ANA> | NSEP Teardown |
| <ANA>–255 | Reserved |
|  |  |

**9.6.34.2 NSEP Priority Access Request frame format**

The NSEP Priority Access Request frame is transmitted by a requesting STA to request a priority access related action from another STA. The format of the NSEP Priority Access Request frame Action field is shown in Table 9-526n (NSEP Priority Access Request frame Action field format).

**Table 9-526n—NSEP Priority Access Request frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 1 | Category |
| 2 | NSEP action |
| 3 | Dialog token |
| 4 | Request type |

The Category field is defined in 9.4.1.11 (Action field).

The NSEP Action field is defined in 9.6.34 (NSEP Priority Access Action frame details).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

The NSEP Request Type field specifies the particular action sought by the requesting STA. The format of

the NSEP Request Type field is shown in Figure 9-970b (NSEP Request Type element format). The defined NSEP request type values are shown in Table 9-526o (NSEP request type definition).

|  |
| --- |
| NSEP Request Type |

Octets: 1

**Figure 9-970b—NSEP Request Type element format**

**Table 9-526o—NSEP request type definition**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| Reserved | 0 |
| Enable | 1 |
| Disable | 2 |
| Reserved | 3–255 |

**9.6.34.3 NSEP Priority Access Response frame format**

The NSEP Priority Access Response frame is transmitted in response to a NSEP Priority Access Request

frame. The format of the NSEP Priority Access Response frame Action field is shown in Table 9-526p

(NSEP Priority Access Response frame Action field format).

**Table 9-526p—NSEP Priority Access Response frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 1 | Category |
| 2 | NSEP action |
| 3 | Dialog token |
| 4 | Status code |

The Category field is defined in 9.4.1.11 (Action field).

The NSEP Action field is defined in 9.6.34 (NSEP Priority Access Action frame details).

The Dialog Token field value is copied from the Dialog Token field in the corresponding NSEP Priority

Access Request frame.

The status code values are defined in Table 9-50 (Status codes).

**9.6.36.2 NSEP Priority Access Request frame details**

The NSEP Priority Access Request frame is an Action frame of category Protected EHT. It is transmitted by a requesting MLD or EHT STA to request that NSEP priority access be enabled. The Action field of the NSEP Priority Access Request frame contains the information shown in Table 9-X (NSEP Priority Access Request Action field format).

**Table 9-X—NSEP Priority Access Request frame Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 1 | Category |
| 2 | Protected EHT Action |
| 3 | Dialog token |

The Category field is defined in 9.4.1.11 (Action field).

The Protected EHT Action field is defined in 9.6.36.1 (Protected EHT Action field).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and set by the requesting STA.

**9.6.36.3 NSEP Priority Access Response frame details**

The NSEP Priority Access Response frame is an Action frame of category Protected EHT. It is transmitted in response to an EHT NSEP Priority Access Request frame. The Action field of the NSEP Priority Access Response frame contains the information shown in Table 9-x (NSEP Priority Access Response Action field format).

**Table 9-x—NSEP Priority Access Response Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 1 | Category |
| 2 | Protected EHT action |
| 3 | Dialog token |
| 4 | Status code |

The Category field is defined in 9.4.1.11 (Action field).

The Protected EHT Action field is defined in 9.6.36.1 (Protected EHT Action field).

The Dialog Token field value is copied from the Dialog Token field in the corresponding EHT NSEP Priority Access Request frame.

The status code values are defined in Table 9-50 (Status codes).

**9.6.36.3 NSEP Priority Access Teardown frame details [CID #1127]**

The NSEP Priority Access Teardown frame is an Action frame of category Protected EHT. It is transmitted by an MLD or EHT STA to disable NSEP priority access. The Action field of the NSEP Priority Access Teardown frame contains the information shown in Table 9-X (EHT NSEP Priority Access Teardown Action field format).

**Table 9-X—EHT NSEP Priority Access Teardown Action field format**

|  |  |
| --- | --- |
| **Order** | **Meaning** |
| 1 | Category |
| 2 | Protected EHT Action |

The Category field is defined in 9.4.1.11 (Action field).

The Protected EHT Action field is defined in 9.6.36.1 (Protected EHT Action field).

**35.10 NSEP priority access**

**35.10.1 General**

NSEP priority access is a capability designed to provide prioritized access to system resources for authorized users to increase their probability of successful communication during periods of network congestion.[CID #1467] ~~A STA with a value of true for dot11EHTNSEPPriorityAccessActivated shall set to 1 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits and is capable of invoking NSEP priority access. A STA with a value of false for dot11EHTNSEPPriorityAccessActivated shall set to 0 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits and is not capable of invoking NSEP priority access.~~

An MLD or EHT STA that is capable of invoking NSEP priority access shall have value of true for dot11EHTNSEPPriorityAccessActivated and shall set to 1 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits. An MLD or EHT STA that is not capable of invoking NSEP priority access shall have a value of false for dot11EHTNSEPPriorityAccessActivated and shall set to 0 the NSEP Priority Access Supported subfield of the EHT Capabilities element that it transmits. [CIDs #1504, #3038]

During the (re)association process, the AP MLD or EHT AP obtains information required to verify the authority of the non-AP MLD or non-AP EHT STA to use NSEP priority access. An AP MLD or EHT AP that has dot11SSPNInterfaceActivated equal to true may use the interworking procedures described in 11.22.5 (Interworking procedures: interactions with SSPN) to retrieve permission for a non-AP MLD or non-AP EHT STA to use the NSEP priority access from an NSEP service provider via the SSPN interface during association by the non-AP MLD or non-AP EHT STA. To support this exchange, a non-AP MLD or non-AP EHT STA with dot11EHTNSEPPriorityAccessActivated equal to true shall provide the home realm information of the NSEP provider and necessary authentication parameters as described in 11.22.5 (Interworking procedures: interactions with SSPN). An AP MLD or EHT AP with dot11SSPNInterfaceActivated equal to true that successfully obtains permission for a non-AP MLD or non-AP EHT STA to use NSEP priority access ~~for the non-AP~~ shall update the dot11NonAPStationAuthNSEPPriorityAccesstype for the non-AP MLD or non-AP EHT STA in the dot11InterworkingEntry. The authorization information included in the dot11InterworkingEntry is passed from the prior AP MLD or EHT AP to the new AP MLD or EHT AP in the same ESS during reassociation as described in 11. 22.5.3 (Reporting and session control with SSPN). Other methods of obtaining this authorization information ~~are vendor specific and thus out of scope~~ are beyond the scope of this standard. [CID # 2305]

**35.10.2 NSEP priority access operation**

**35.10.2.1 Introduction**

NSEP priority access is established at the MAC (see Table 9.6.34 (NSEP Priority Access Action frame

details)) by the initiation of the SME. The setup and deletion of NSEP priority access of the SME are

described in this subclause.

~~NSEP priority access frames shall be protected Management frames that are exchanged in an RSNA.~~ An MLD or EHT STA shall only send NSEP Priority Access frames to an associated peer MLD or EHT STA if both are management frame protection capable. [CID #1505]

**35.10.2.2 Setup procedures for enabling and disabling the NSEP priority access**

**35.10.2.2.1 General**

The procedures for enabling and disabling the NSEP priority access are described in 35.10.2.2.2 (Procedure at the originator) and 35.10.2.2.3 (Procedure at the recipient), and illustrated in Figure 35-7 (NSEP priority access setup).

Note: the disable operation is a teardown that does not include the response. [CID #1127]

Originator Recipient

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| MLD or EHT STA SME |  | MLD or EHT STA MAC |  | MLD or EHT STA MAC |  | MLD or EHT STA SME |



MLME‐NSEPPRIACCESS.request

NSEP PriorityAccess Request

MLME‐NSEPPRIACCESS.indication

MLME‐NSEPPRIACCESS.response

NSEP PriorityAccess Response

MLME‐NSEPPRIACCESS.confirm

**Figure 35-7—NSEP priority access setup**

**35.10.2.2.2 Procedure at the originator**

When instructed to do so by a higher layer function and upon receipt of an MLME NSEPPRIACCESS.request primitive with a RequestType of Enable, an MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated equal to true and with NSEP priority access disabled shall enable NSEP priority access using the following procedure.

a) The initiating MLD or EHT STA shall transmit an NSEP Priority Access Request frame (~~9.6.34.2 (NSEP Priority Access Request frame format)~~ 9.6.36.2 NSEP Priority Access Request frame details) ~~with a value of Enable in the Request Type field~~ [CIDs #1119, #1488, #2565] to an associated MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated set to true. An MLD may send the NSEP Priority Access Request frame on any available link between the associated MLDs.

1) If the initiating MLD or EHT STA is a non-AP MLD or non-AP EHT STA, the destination of the NSEP Priority Access Request frame is the AP MLD or EHT AP with which the initiating non-AP MLD or non-AP EHT STA is associated.

2) If the initiating MLD or EHT STA is an AP MLD or EHT AP, the destination of the NSEP Priority Access Request frame is the non-AP MLD or non-AP EHT STA indicated by the value of the PeerMLDAddress or PeerEHTSTAAddress parameter in the MLME-NSEPPRIACCESS.request primitive.

b) If the initiating MLD or EHT STA receives an NSEP Priority Access Response frame (~~9.6.34.3 (NSEP Priority Access Response frame format)~~ 9.6.36.3 NSEP Priority Access Response frame details [CIDs #1119, #1488, #2565]) with a matching dialog token and a value of SUCCESS in the Status Code field, then the initiating MLD or EHT STA shall issue an MLME-NSEPPRIACCESS.confirm primitive with a value of SUCCESS in the Status Code field indicating successful enabling of NSEP priority access. The initiating MLD or EHT STA shall enable NSEP priority access so that subsequently transmitted traffic receives NSEP priority access treatment using a procedure defined in 35.10.3 (NSEP priority access procedure).

c) If the initiating MLD or EHT STA receives an NSEP Priority Access Response frame (~~9.6.34.3 (NSEP Priority Access Response frame format)~~ 9.6.36.3 NSEP Priority Access Response frame details [CIDs #1119, #1488, #2565]) with a matching dialog token and a value not equal to SUCCESS in

the Status Code field, then the initiating MLD or EHT STA shall issue an MLME-NSEPPRIACCESS.confirm primitive with the status code from the response frame indicating the failure to enable NSEP priority access. The initiating MLD or EHT STA shall not apply NSEP priority access procedure. The higher-layer function that triggers the NSEP priority access is responsible for managing reattempts after receiving responses with a value other than SUCCESS.[#1708]

When instructed to do so by a higher layer function and upon receipt of an MLME NSEPPRIACCESS.request primitive with a RequestType of Disable, an MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated set to true and with NSEP priority access enabled shall disable NSEP priority access using the following procedure.

a) The initiating MLD or EHT STA shall transmit an ~~NSEP Priority Access Request frame (9.6.34.2 (NSEP Priority Access Request frame format))~~ NSEP Priority Access Teardown frame (9.6.36.3 NSEP Priority Access Teardown frame details)) ~~with the value of Disable in the Request Type field~~ [CID #1127] to an associated MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated set to true. An initiating MLD may send the NSEP Priority Access Teardown frame on any available link between the associated MLDs. The initiating MLD or EHT STA shall disable NSEP priority access so that subsequently transmitted traffic does not receive NSEP priority access treatment.

1. If the initiatingMLD or EHT STA is a non-AP MLD or non-AP EHT STA, the destination of the NSEP Priority Access Request frame is the AP MLD or EHT AP with which the initiating non-AP MLD or non-AP EHT STA is associated.
2. If the initiating MLD or EHT STA is an AP MLD or EHT AP, the destination of the NSEP Priority Access Request frame is the non-AP MLD or non-AP EHT STA indicated by the value of the PeerMLDAddress or PeerEHTSTAAddress parameter in the MLME-NSEPPRIACCESS.request primitive.

~~b) If the initiating STA receives an NSEP Priority Access Response frame (9.6.34.3 (NSEP Priority~~

~~Access Response frame format)) with a matching dialog token and with a value of SUCCESS in the~~

~~Status Code field, then the initiating STA shall issue a MLME-NSEPPRIACCESS.confirm primitive with a value of SUCCESS in the Status Code field indicating successful disabling of NSEP priority access.~~ [CID #1127]

**35.10.2.2.3 Procedure at the recipient**

Upon receipt of an NSEP Priority Access Request frame (~~9.6.34.2 (NSEP Priority Access Request frame~~

~~format)~~ 9.6.36.3 (NSEP Priority Access Response frame details)) ~~with a value of Enable in the RequestType field~~ [CIDs #1119, #1488, #2565], an MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated equal to true and with NSEP priority access disabled shall enable NSEP priority access using the following procedure.

a) The receiving MLD or EHT STA shall issue an MLME-NSEPPRIACCESS.indication primitive with a value of Enable in the Request Type field.

b) Upon receipt of the MLME-NSEPPRIACCESS.response primitive, the receiving MLD or EHT STA shall reply to the initiating MLD or EHT STA with an NSEP Priority Access Response frame (9.6.34.3 (NSEP Priority Access Response frame format)) with a status code using the following procedure:

1) If the receiving MLD or EHT STA is an AP MLD or EHT AP, the AP MLD or EHT AP verifies the authority of the requesting non-AP MLD or non-AP EHT STA to use NSEP priority access and the status code shall reflect the results of the authorization as described below:

i) If the requesting non-AP MLD or non-AP EHT STA is verified for NSEP priority access, the AP MLD or EHT AP shall set the Status Code field with a value of SUCCESS.

ii) If the requesting non-AP MLD or non-AP EHT STA is not verified for NSEP priority access, the AP MLD or EHT AP shall set the Status Code field with a value of NSEP\_DENIED\_UNAUTHORIZED.

iii) If the receiving AP MLD or EHT AP cannot support NSEP priority access for the initiating non-AP MLD or non-AP EHT STA for any other reason, the receiving AP MLD or EHT AP shall set the Status Code field with a value of NSEP\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field).

2) If the receiving MLD or EHT STA is a non-AP MLD or non-AP EHT STA, the receiving non-AP MLD or non-AP EHT STA should set the Status Code field to a value of SUCCESS. If instructed by a higher layer function to reject the NSEP priority access, the non-AP MLD or non-AP EHT STA may set the Status Code field with a value of NSEP\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field). [CIDs #1469, #1471]

c) If the Status Code in the MLME-NSEPPRIACCESS.response primitive is equal to SUCCESS, the receiving MLD or EHT STA shall enable NSEP priority access so that subsequently transmitted traffic receives NSEP priority access treatment using a procedure defined in 35.10.3 (NSEP priority access procedure).

d) If the Status Code in the MLME-NSEPPRIACCESS.response primitive is equal to a value other

than SUCCESS, the receiving MLD or EHT STA shall not apply NSEP priority access to subsequently transmitted NSEP traffic.

Upon receipt of an ~~NSEP Priority Access Request frame (9.6.34.2 (NSEP Priority Access Request frame~~

~~format)) with a value of Disable in the RequestType~~ ~~field~~ NSEP Priority Access Teardown (9.6.36.3 (NSEP Priority Access Teardown frame details)) [CID #1127], an MLD or EHT STA with dot11EHTNSEPPriorityAccessActivated equal to true and with NSEP priority access enabled shall use the following procedure to disable NSEP priority access.

a) The receiving MLD or EHT STA shall issue an MLME-NSEPPRIACCESS.indication primitive with the value of Disable in the Request Type field.

1) ~~Upon receipt of the MLME-NSEPPRIACCESS.response primitive, the receiving STA shall respond with an NSEP Priority Access Response frame (9.6.34.3 (NSEP Priority Access Response frame format)) with a value of SUCCESS in the Status Code field.~~ [CID #1127]

~~2)~~ The receiving MLD or EHT STA shall disable NSEP priority access so that subsequently transmitted traffic does not receive NSEP priority access treatment.

**35.10.3 NSEP priority access procedure**

If the negotiation to enable NSEP priority access between an AP MLD or EHT AP and a non-AP MLD or non-AP EHT STA is successful, then both the AP MLD or EHT AP and the non-AP MLD or non-AP EHT STA shall apply NSEP priority access treatment to the transmission of [CID #2306] NSEP traffic using a TBD procedure. The AP MLD or EHT AP shall ensure that only authorized non-AP MLDs or non-AP EHT STAs can invoke NSEP priority access. Non-AP MLDs or non-AP EHT STAs shall only apply NSEP priority access treatment after being authorized.[CID #1470] An AP MLD or EHT AP may apply NSEP priority access to NSEP traffic using the same TBD procedure prior to completion of the negotiation to enable NSEP priority access.

~~Additional details regarding NSEP priority access operation between non-AP MLD and AP MLD is TBD.~~