IEEE P802.11
Wireless LANs

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| Proposed draft 11be Spec text for MLME of NSEP Priority Access |
| Date: 2021-01-14 |
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Abstract

This contribution proposes the draft specification text of MLME SAP for TGbe draft.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Some editorial modification.
* Rev 2: Update version reflecting the comments from several members
* Rev 3: Update version reflecting the comments from Edward Au.

The texts is prepared for the following motions.

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| --- | --- | --- | --- | --- | --- |
| Layer management | MLME SAP interface\* | Zhiqiang Han | Basics (R1) | Po-Kai Huang, Rojan Chitrakar, Abhishek Patil, Jay Yang, Xiandong Dong,Subir Das , Liuming Lu | [Motion 50, [28] and [113] ][Motion 115, #SP90, [14] and [114]][Motion 126, [1] and [115]][Motion 131, #SP207, [19] and [115]] |

This contribution addresses the following motions:

The 802.11be amendment shall define mechanism(s) in support of priority access to a non-AP STA for national security (NS)/emergency preparedness (EP) Priority Service

NOTE – A non-AP STA for NS/EP Priority Service is a regular non-AP STA authorized to NS/EP service.

[Motion 50, [28] and [113]]

The NS/EP Priority Service if supported by a non-AP STA, shall use an action frame to indicate the need for priority access to its associated AP STA and to be included in Release 1 specification.

[Motion 115, #SP90, [14] and [114]]

[Motion 126, [1] and [115]]

The Priority Service Information shall be defined in EHT MAC Capability Information Element to exchange the NS/EP Priority Service capability information between AP STA and non-AP STA

[Motion 131, #SP207, [19] and [115]]

802.11be has included NSEP Priority Access Procedure, but how to trigger this procedure by SME is missing, so this contribution is proposed to add a new MLME SAP interface 6.3.x NSEP Priority Access according to those motions and the text in 802.11be.

**Proposed spec text:**

The baseline for this text is 802.11 REVmd draft 5.0 and 802.11be draft 0.2.

***TGbe editor: Please add the subclauses as follows***

**6.3.x**  **NSEP priority access**

**6.3.x.1 Introduction**

The following primitives supports the NSEP priority access operation.

In clause 6.3.x NSEP priority Access, the “SME” is the entity that manages the STA. The peer MAC entity is with a STA. The PeerSTAAddress is the STA MAC address.

Note: Additional details regarding NSEP priority access operation between non-AP MLD and AP MLD is TBD — as described in 35.9 NSEP priority access.

**6.3.x.2 MLME-NSEPPRIACCESS.request**

**6.3.x.2.1 Function**

This primitive requests a change to NSEP priority access from an associated peer MAC entity that is within an AP or a non-AP STA.

**6.3.x.2.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-NSEPPRIACCESS.request(

PeerSTAAddress,

Dialog Token,

RequestType

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress  | MAC address | Any valid individual MAC address | Specifies the address of the peer MAC entity with which to perform the NSEP priority access process.  |
| Dialog Token | Integer | 0–255 | The dialog token to identify the NSEP priority access transaction. |
| RequestType | NSEP Request Action field  | As defined in 9.6.34a.2 NSEP Priority Access Request frame format. | Specifies the NSEPRequest parameters. |

**6.3.x.2.3 When generated**

 This primitive is generated by the SME when a non-AP STA wishes a change(e.g., enable or disable) to the NSEP priority access from an AP or when an AP wishes a change to the NSEP priority access from an non-AP STA.

**6.3.x.2.4 Effect of receipt**

This primitive initiates an NSEP priority access procedure. In the case that a response is received from the responder STA, the MLME subsequently issues an MLME-NSEPPRIACCESS.confirm primitive that reflects the results.

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**6.3.x.3 MLME-NSEPPRIACCESS.confirm**

**6.3.x.3.1 Function**

This primitive reports the results of an NSEP priority access change with an associated peer MAC entity that is in an AP or a non-AP STA .

**6.3.x.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-NSEPPRIACCESS.confirm(

PeerSTAAddress,

Dialog Token,

Status Code

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress  | MAC address | Any valid individual MAC address | Specifies the address of the peer MAC entity with which to perform the NSEP priority access process. |
| Dialog Token | Integer | 0–255 | The dialog token to identify the NSEP priority access transaction. |
| Status Code | As defined in frame format | As defined in 9.4.1.9 (Status Code field) | Indicates the status of a requested operation. |

**6.3.x.3.3 When generated**

This primitive is generated by the MLME as a result of receipt of an NSEP Priority Access Response frame from the peer MAC entity , which is in an AP or a non-AP STA.

**6.3.x.2.4 Effect of receipt**

The SME is notified of the results of the NSEP priority access procedure.

**6.3.x.4 MLME-NSEPPRIACCESS.indication**

**6.3.x.4.1 Function**

This primitive indicates that an associated peer MAC entity is requesting a change to NSEP priority access from the local MAC entity which is in an AP or a non-AP STA .

**6.3.x.4.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-NSEPPRIACCESS.indication(

PeerSTAAddress,

Dialog Token,

RequestType

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress  | MAC address | Any valid individual MAC address | Specifies the address of the peer MAC entity with which to perform the NSEP priority access process.  |
| Dialog Token | Integer | 0–255 | The dialog token to identify the NSEP priority access transaction. |
| RequestType | NSEP Request Action field  | As defined in 9.6.34a.2 NSEP Priority Access Request frame format | Specifies the NSEPRequest parameters. |

**6.3.x.4.3 When generated**

This primitive is generated by the MLME as a result of the receipt of an NSEP Priority Access Request frame from a specific peer MAC entity which is in a non-AP STA or an AP .

**6.3.x.4.4 Effect of receipt**

The SME is notified of the receipt of the NSEP Priority Access Request frame.

**6.3.x.5 MLME-NSEPPRIACCESS.response**

**6.3.x.5.1 Function**

This primitive is generated by the MLME to send a response to an associated peer MAC entity that requested an NSEP priority access change with the AP or the non-AP STA that issued the corresponding request primitive.

6.3.x.5.2 Semantics of the service primitive

The primitive parameters are as follows:

MLME-NSEPPRIACCESS.response(

PeerSTAAddress,

Dialog Token,

Status Code

)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Valid range | Description |
| PeerSTAAddress  | MAC address | Any valid individual MAC address | Specifies the address of the peer MAC entity with which to perform the NSEP priority access process.  |
| Dialog Token | Integer | 0–255 | The dialog token to identify the NSEP priority access transaction. |
| Status Code | As defined in frame format | As defined in 9.4.1.9 (Status Code field) | Indicates the status of a requested operation. |

**6.3.x.5.3 When generated**

This primitive is generated by the SME of an AP or a non-AP STA as a response to an MLME-NSEPPRIACCESS.indication primitive.

**6.3.x.5.4 Effect of receipt**

This primitive initiates transmission of an NSEP Priority Access Response frame to the specific peer MAC entity within a non-AP STA or an AP that requested the change to NSEP priority access.

**Straw Poll: Do you support to incorporate the proposed draft text in this document to TGbe Draft?**

**Result: Yes/No/Abstain**