IEEE P802.11
Wireless LANs

|  |
| --- |
| Resolution of CIDs in clauses 35.17.1 and 35.17.2 (LB 266) |
| Date: July 8, 2022? |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| John WullertSubir Das | PERATON LABS |  |  | <jwullert@peratonlabs.com><sdas@peratonlabs.com> |
| An Nguyen Frank Suraci | DHS/CISA/ECD |  |  | (an.p.nguyen, frank.suraci) @cisa.dhs.gov |

 Abstract

This submission proposes resolutions for following 32 CIDs received for TGbe LB266 dealing in clauses 35.17.1 and 35.17.2:

10472, 11796, 11797, 10259, 11620, 10260, 10885, 10700, 11799, 12694, 10381, 11621, 10379, 10475, 11800, 10382, 11622, 10261, 11802, 10380, 10262, 10476, 11803, 10263, 11804, 10264, 10265, 10081, 10266, 12698, 10477, 10478

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.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 10472 | 35.17.1 | 533.42 | In Clause 35.17 EPCS priority access, there are too many "general", e.g., in 35.17.1, 35.17.2.1, 35.17.3.1, etc. | Suggest to merge the text of "general" into the main body of corresponding subclause. | RevisedWill remove the referenced clause headings.**TGbe editor please remove the following clause headings and renumber the subsequent clause headings appropriately:*** **35.17.1 General**
* **35.17.2.1 General**
* **35.17.2.2.1 General**
 |
| 11796 | 35.17.1 | 533.48 | For an EPCS AP MLD or an EPCS non-AP MLD, not only the dot11EHTEPCSPriorityAccessActivated is true, the dot11EHTOptionImplemented also needs to be true. | Update the sentence as: "An EPCS AP MLD or an EPCS non-AP MLD is an MLD that has a value of true for dot11EHTEPCSPriorityAccessActivated and dot11EHTOptionImplemented." | **Rejected**An EHT STA has dot11EHTOptionImplemented equal to true (as described in 35.16.1 Basic EHT BSS operation), so optional EHT features must obviously have this set to true. |
| 11797 | 35.17.1 | 533.64 | Clarify that other methods of EPCS authorization are possible and then mention that they are out of scope of this standard. | Update the sentence as: "While other methods of obtaining this authorization information are possible, they are outside the scope of this standard." | Accepted |
| 10259 | 35.17.2.1 | 534.19 | The sentence describing the restrictions on transmission of EPCS enable request and teardown frames by an non-AP MLD has an issue with subject-verb agreement that make it hard to parse | Rephrase as "A non-AP STA affiliated with a non-AP MLD shall not send an EPCS Priority Access Enable Request frame or an EPCS Priority Access Teardown frame to an AP affiliated with the associated AP MLD unless RSNA with management frame protection (see 12.2.7 (Requirements for management frame protection) and 12.6 (RSNA security association management)) has been successfully negotiated and both AP MLD and non-AP MLD are capable of supporting EPCS priority access." | RevisedResolved in conjunction with CID 11620**TGbe editor please implement changes labelled as #11620 in this doc.** |
| 11620 | 35.17.2.1 | 534.19 | The EPCS Priority Access Teardown frame should be used on an enabled EPCS Priority Access, i.e., after an EPCS Priority Access Request/Response frame exchange. Therefore, there should not be any case where an EPCS Priority Access Teardown frame is sent before an EPCS Priority Access Request frame. Then, the text "and EPCS Priority Access Teardown" in line 19 and line 26 on page 534 is not needed. | Remove the text "and EPCS Priority Access Teardown" in line 19 and line 26 on page 534. | RevisedResolved in conjunction with CID 10259, 10260 and 10885.**TGbe editor please implement changes labelled as #11620 in this doc.** |
| 10260 | 35.17.2.1 | 534.26 | The sentence describing the restrictions on transmission of EPCS enable request and teardown frames by an AP MLD has an issue with subject-verb agreement that make it hard to parse | Rephrase as "An AP STA affiliated with an AP MLD shall not send EPCS Priority Access Enable Request frames or EPCS Priority Access Teardown frames to an non-AP STA affiliated with an associated non-AP MLD unless RSNA with management frame protection (see 12.2.7 (Requirements for management frame protection) and 12.6 (RSNA security association management)) has been successfully negotiated and both AP MLD and non-AP MLD are capable of supporting EPCS priority access." | RevisedResolved in conjunction with CID 11620, 10259, and 10885**TGbe editor please implement changes labelled as #11620 in this doc.** |
| 10885 | 35.17.2.1 | 534.26 | What is "EPCS Priority Access Request"? Does it mean EPCS Priority Access Enable Request? | as in comment | RevisedResolved in conjunction with CID 11620, 10259, and 10260.**TGbe editor please implement changes labelled as #11620 in this doc.** |
| 10700 | 35.17.2.2.1 | 535.08 | Figure 35-37 should be moved to Subcaluse 11 | As comment | RejectedRationale for the suggestion is not clear. The comment provide insufficient guidance for the proposed change. |
| 11799 | 35.17.2.2.1 | 535.35 | EPCS priority access shall be in an enable state after authorization and successful invocation. | After successful invocation of EPCS priority access, both the originator and the responder shall transition EPCS to an enable state and apply the priority access treatment to EPCS traffic. | RevisedText has been edited to clearly illustrate location of the proposed change.**TGbe editor please implement changes labelled as #11799 in this doc.** |
| 12694 | 35.17.2.2.1 | 535.36 | The AP MLD / non-AP MLD does not transmit any frame, but only one of its affiliated APs / non-AP STAs. Please revise the following sentence, as proposed: "The AP MLD and non-AP MLD may send a request on any enabled link between them and, ..." | Please revise the sentence as follows: "The AP MLD and non-AP MLD may send a EPCS Priority Access Enable Request frame using the affiliated AP and affiliated non-AP STA on any enabled link between them and, ..." | RevisedAgree with comment**TGbe editor please implement changes labelled as #12694 in this doc.** |
| 11621 | 35.17.2.2.2 | 535.40 | The subclause title uses the term "originating non-AP MLD", while the subclause text uses the term "initiating non-AP MLD". Why not use the terms consistently? | Suggest changing "originating non-AP MLD" to "initiating non-AP MLD" in the subclause title of 35.17.2.2.2. | Accepted |
| 10379 | 35.17.2.2.2 | 535.48 | Since the EPCS is handled at the MLD level, suggest to remove the references to non-AP STA while sending/receiving EPCS Priority Enable Request frame. Which link/STA is used for transmission etc. will be handled by the MLD. | Remove the explicit mentioning of the link/non-AP STA in the rules in section 35.17.2.2.2 | RejectedThe current mentions of STAs are included to clarify that the APs/STAs are responsible for the actual over-the-air transmission. These references were added in response to CIDs submitted during CC36, such as CID 4437, which was resolved in document 802.11-21/1238r5, Motion 272. |
| 10475 | 35.17.2.2.2 | 535.53 | "the MAC address of the AP with which the initiating non-AP EHT STA is associated" is inconsistent with EPCS as a feature of MLD. | Please clarify this and make change accordingly. | RevisedAgree with comment. Adjusted text to refer to MLD.**TGbe editor please implement changes labelled as #10475 in this doc.** |
| 11801 | 35.17.2.2.2 | 536.31 | When a Teardown frame is sent on an enabled link, EPCS priority access should be terminated to all enabled links. | The AP MLD and non-AP MLD may send a Teardown frame on any enabled link between them and, EPCS priority access treatment will be terminated on all enabled links between the MLDs. (Note: Please reflect similar changes for both non-AP MLD and AP MLD). | RevisedAgree with comment and have made recommended changes.**TGbe editor please implement changes labelled as #11801 in this doc.** |
| 10381 | 35.17.2.2.2 | 0.00 | While the spec covers the explicit tear down using the EPCS Priority Access Teardown frame, the implicit tear down using ML disassociation is not covered | As in the comment | RevisedAdded text to explicitly state that disassociation results in transition of EPCS to torn-down state.**TGbe editor please implement changes labelled as #10381 in this doc** |
| 11622 | 35.17.2.2.3 | 536.35 | The subclause title uses the term "originating AP MLD", while the subclause text uses the term "initiating AP MLD". Why not use the terms consistently? | Suggest changing "originating AP MLD" to "initiating AP MLD" in the subclause title of 35.17.2.2.3. | Accepted |
| 10261 | 35.17.2.2.3 | 536.38 | The phrase "an AP MLD that supports this functionality" is imprecise | Replace "an AP MLD that supports this functionality" with "EPCS AP MLD"Note: This is leveraging definition that is currently in subclause 35.17.3.1, but a separate CID suggests moving that defintion to subclause 35.17.1. | Accepted |
| 11802 | 35.17.2.2.3 | 536.51 | Other methods of EPCS authorization are possible but they are outside the scope of this | Modify the last sentence in Note 2: The successful verification by an AP MLD with dot11SSPNInterfaceActivated equal to false may be possible but it is out of scope of this standard. | RevisedModified text to clarify that authorization is being verified.**TGbe editor please implement changes labelled as #11802 in this doc** |
| 10380 | 35.17.2.2.3 | 536.53 | Since the EPCS is handled at the MLD level, suggest to remove the references to AP STA while sending/receiving EPCS Priority Enable Request frame. Which link/STA is used for transmission etc. will be handled by the MLD. | Remove the explicit mentioning of the link/AP STA in the rules in section 35.17.2.2.2 | RejectedThe current mentions of STAs are included to clarify that the APs/STAs are responsible for the actual over-the-air transmission. |
| 10262 | 35.17.2.2.3 | 536.58 | Given that EPCS is enabled at the MLD level, the MAC address of the MLD should be one destination option. | Rephrase as "The destination of the EPCS Priority Access Enable Request frame is the MAC address of the non-AP MLD indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSENABLE.request primitive or the MAC address of the non-AP STA that is operating on the same link on which the EPCS Priority Access Enable Request frame is transmitted and is affiliated with the non-AP MLD whose MAC address value is indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSENABLE.request primitive." | RevisedResolved in conjunction with CID 10476 and 11803. **TGbe editor please implement changes labelled as #10262 in this doc** |
| 10476 | 35.17.2.2.3 | 536.59 | "non-AP EHT STA indicated by the value of the PeerSTAAddress parameter in the MLME-EPCS request primitive" is inconsistent with EPCS as a feature of MLD | Please clarify this and make change accordingly. | RevisedResolved in conjunction with CID 10262 and 11803. **TGbe editor please implement changes labelled as #10262 in this doc** |
| 11803 | 35.17.2.2.3 | 536.61 | It is along sentence and difficult to parse. Simply it. | As in comment | RevisedResolved in conjunction with CIDs 10262 and 10476**TGbe editor please implement changes labelled as #10262 in this doc.** |
| 10263 | 35.17.2.2.3 | 537.12 | The presence or absence of the Multi-link element does not determine whether the EPCS non-AP MLD is "allowed" to employ EPCS priority access | Rephrase as "The initiating EPCS AP MLD may include the Priority Access Multi-Link element in the EPCS Priority Access Enable request frame to provide the EDCA parameter set(s) and/or the MU EDCA parameter set(s) that the destination EPCS non-AP MLD will employ on the corresponding links." | Accepted |
| 11804 | 35.17.2.2.3 | 537.15 | EDCA and MU EDCA parameters should be sent to only the enabled links | The initiating EPCS AP MLD may include the Priority Access Multi-Link element in the EPCS Priority Access Enable request frame to allow the destination EPCS non-AP MLD to employ priority access using the included EDCA parameter set and/or MU EDCA parameter set on the corresponding enabled links. | RevisedAgree with comment. Modified text to reflect.**TGbe editor please implement changes labelled as #11804 in this doc.** |
| 10264 | 35.17.2.2.3 | 537.37 | Given that EPCS is enabled and torn down at the MLD level, the MAC address of the MLD should be one destination option. | Rephrase as "The destination of the EPCS Priority Access Teardown frame is the MAC address of the non-AP MLD indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSTEARDOWN.request primitive or the MAC address of the non-AP STA that is operating on the same link on which the EPCS Priority Teardown frame is transmitted and is affiliated with the non-AP MLD whose MAC address value indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSTEARDOWN.request primitive." | RevisedAgree with comment**TGbe editor please implement changes labelled as #10264 in this doc.** |
| 10265 | 35.17.2.2.3 | 537.46 | The position of Note 4 is too far removed from the reference to the external interface | Move Note 4 to a position immediately after Note 3. | Accepted |
| 10382 | 35.17.2.2.3 | 0.00 | While the spec covers the explicit tear down using the EPCS Priority Access Teardown frame, the implicit tear down using ML disassociation is not covered | As in the comment | RevisedAdded text to explicitly state the disassociation results in transition of EPCS to torn-down state.**TGbe editor please implement changes labelled as #10382 in this doc** |
| 10081 | 35.17.2.2.4 | 538.09 | Considering dense STAs scenario, if a large number of STAs request to enable EPCS priority access at the same time, the AP may not able to authorize all these STAs timely. In this situation, AP may response a status code "EPCS\_DENIED\_UNAUTHORIZED" or "EPCS\_DENIED\_OTHER\_REASON". STAs receiving such status code may not try again (in a long time) due to the denied status code. It is suggested to add a new status code, for example "NSEP\_DELAYED\_AUTHORIZATION", to allow the STAs try to request authorization again later. | A new status code "NSEP\_DELAYED\_AUTHORIZATION" is suggested to be added. In addition, the action after receiving (different) status codes needs to be clarified. | RevisedAgree that it would be useful to statue code that would signal an authorization failure and have added that to the set of Status codes.The determination of what to do after receiving this code is left to the higher layer.**TGbe editor please implement changes labelled as #10081 in this doc.** |
| 10266 | 35.17.2.2.4 | 538.20 | The presence or absence of the Multi-link element does not determine whether the EPCS non-AP MLD is "allowed" to employ EPCS priority access | Rephrase as "The receiving AP MLD may include the Priority Access Multi-Link element in the EPCS Priority Access Enable response frame to provide the EDCA parameter set(s) and/or the MU EDCA parameter set(s) that the initiating EPCS non-AP MLD will employ on the corresponding links." | Accepted |
| 12698 | 35.17.2.2.5 | 538.53 | The following text needs language revision for better clarity: "The receiving non-AP MLD or non-AP EHT STA should set the Status Code field to a value of SUCCESS unless, if the non-AP MLD or non-AP EHT STA is unable to support EPCS priority access, the non-AP MLD or non-AP EHT STA shall set the Status Code field with a value ofEPCS\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field)" | Please consider the following revision: " The receiving non-AP MLD or non-AP EHT STA should set the Status Code field to a value of SUCCESS unless it is unable to support EPCS priority access. In such a case, the non-AP MLD or non-AP EHT STA shall set the Status Code field with a value ofEPCS\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field)" | Revised.Agree with comment. Resolved in conjunction with CID 10477 and 10478.**TGbe editor please implement changes labelled as #12698 in this doc.** |
| 10477 | 35.17.2.2.5 | 538.54 | Please clarify "unless, if the non-AP MLD is unable to support EPCS priority access, the non-AP MLD shall set the Status Code field with a value of EPCS\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field)":1) why the receiving EPCS non-AP MLD cannot support the EPCS priority access request from EPCS AP MLD?2) the reason code should provide a valid reason. | Please clarify this and make change accordingly. | Revised.Agree with comment. Resolved in conjunction with CID 12698 and 10478.**TGbe editor please implement changes labelled as #12698 in this doc.** |
| 10478 | 35.17.2.2.5 | 539.01 | Please clarify why the receiving EPCS non-AP MLD cannot support the EPCS priority access request from EPCS AP MLD, and sends State Code other than SUCCESS. | Please clarify this. | Revised.Agree with comment. Resolved in conjunction with CID 12698 and 10477.**TGbe editor please implement changes labelled as #12698 in this doc.** |

***TGbe editor: Please note baseline is 11be D2.0***

**35.17 EPCS priority access**

**[10472]**

EPCS priority access is a mechanism that provides prioritized access to the wireless medium for authorized users to increase their probability of successful communication during periods of network congestion. An EPCS AP MLD or an EPCS non-AP MLD is an MLD that has a value of true for dot11EHTEPCSPriorityAccessActivated. A STA affiliated with an EPCS MLD shall set to 1 the EPCS Priority Access Supported subfield of the EHT Capabilities element that it transmits. A STA affiliated with an MLD that is not an EPCS AP MLD or an EPCS non-AP MLD shall set to 0 the EPCS Priority Access Supported subfield of the EHT Capabilities element that it transmits.During the (re)association process, the AP MLD obtains information required to verify the authority of the non-AP MLD to use EPCS priority access. An AP MLD 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 to use the EPCS priority access from an EPCS service provider via the SSPN interface during association by the non-AP MLD. To support this exchange, an EPCS non-AP MLD shall provide the home realm information of the EPCS provider and necessary authentication parameters as described in 11.22.5 (Interworking procedures: interactions with SSPN). Other methods of obtaining this authorization information are outside the scope of this standard.

An AP MLD that successfully obtains permission for a non-AP MLD to use EPCS priority access shall update the dot11EPCSPriorityAccessAuthorized for the non-AP MLD in the dot11InterworkingEntry. The authorization information included in the dot11InterworkingEntry is passed from the prior AP MLD to the new AP MLD in the same ESS during reassociation as described in 11.22.5.3 (Reporting and session control with SSPN).

**35.17.2 EPCS priority access operation**

**[10472]**

EPCS priority access is established at the MAC by the initiation of the SME. The EPCS priority access between an AP MLD and its associated non-AP MLD can be in one of the following two states: enabled state or torn down state. The protocols to enable and tear down EPCS priority access are described in this subclause.

[11620]A non-AP STA affiliated with a non-AP MLD shall not send an EPCS Priority Access Enable Request frame to an AP affiliated with the associated AP MLD unless RSNA with management frame protection (see 12.2.7 (Requirements for management frame protection) and 12.6 (RSNA security association management)) has been successfully negotiated and are capable of invoking EPCS priority access.

[11620]An AP affiliated with an AP MLD shall not send an EPCS Priority Access Enable Request frame to a non-AP STA affiliated with the associated non-AP MLD unless RSNA with management frame protection (see 12.2.7 (Requirements for management frame protection) and 12.6 (RSNA security association management)) has been successfully negotiated and are capable of invoking EPCS priority access.

**35.17.2.2 Setup procedures for EPCS priority access**

**[10472]**

EPCS priority access shall be in a torn down state upon the completion of successful multi-link setup procedure (i.e., when non-AP MLD associates with an AP MLD).

The procedures for enabling and tearing down the EPCS priority access are described in the following subclauses. The procedure for enabling EPCS priority access is illustrated in Figure 35-37 (Enabling EPCS priority access).

As illustrated in Figure 35-37 (Enabling EPCS priority access), an MLD supporting EPCS priority access capability invokes EPCS priority access on demand when instructed to do so by a higher layer function. After successful invocation of EPCS priority access, both the originator and the responder [11799] shall transition EPCS to the enabled state and apply the priority access treatment to EPCS traffic. The AP MLD and non-AP MLD may send [12694] an EPCS Priority Access Enable Request frame using an affiliated AP and affiliated non-AP STA on any enabled link between them and, if authorized, EPCS priority access treatment will be applied on all enabled links between the MLDs.

**35.17.2.2.2 Procedures at the [11621] initiating non-AP MLD**

When instructed to do so by a higher layer function and upon receipt of an MLME-EPCSPRIACCESSENABLE.request primitive, an EPCS non-AP MLD with EPCS priority access in the torn down state shall follow the procedure below to request a change for the EPCS priority access state to enabled.

1. A non-AP STA that is operating on an enabled link and is affiliated with the initiating non-AP MLD shall transmit an EPCS Priority Access Enable Request frame (9.6.35.5 (EPCS Priority Access Enable Request frame format)) to the corresponding AP affiliated with the associated EPCS AP MLD.

The destination of the EPCS Priority Access Enable Request frame is the MAC address of the AP [10475] MLD with which the initiating non-AP MLD is associated or the MAC address of the AP that is affiliated with the AP MLD with which the initiating non-AP MLD is associated and that is operating on the same link on which the EPCS Priority Access Enable Request frame is transmitted.

1. If a non-AP STA affiliated with the initiating non-AP MLD receives an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)) with a matching dialog token and a value of SUCCESS in the Status Code field, then the initiating non-AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.confirm primitive with a value of SUCCESS in the Status Code field indicating that EPCS priority access is in an enabled state. The initiating non-AP MLD shall enable EPCS priority access so that subsequently transmitted traffic receives EPCS priority access treatment using the procedure defined in 35.17.3 (EPCS priority access procedure).
2. If a non-AP STA affiliated with the initiating non-AP MLD receives an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)) with a matching dialog token and a value not equal to SUCCESS in the Status Code field, then the initiating non-AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.confirm primitive with the status code from the response frame indicating the failure to change EPCS priority access to an enabled state. In this case, the initiating non-AP MLD shall not apply the EPCS priority access procedure. The higher layer function that triggers the EPCS priority access is responsible for managing reattempts after receiving responses with a value other than SUCCESS.

When instructed to do so by a higher layer function and upon receipt of an MLME-EPCSPRIACCESSTEARDOWN.request primitive, an EPCS non-AP MLD with EPCS priority access in an enabled state shall use the following procedure for changing the EPCS priority access to a torn down state.

NOTE—A non-AP MLD can initiate the teardown procedure regardless of whether the AP MLD or the non-AP MLD initiated the process to enable EPCS priority access.

1. A non-AP STA affiliated with the tearing down non-AP MLD shall transmit an EPCS Priority Access Teardown frame (9.6.35.7 (EPCS Priority Access Teardown frame details)) to an AP affiliated with the associated EPCS AP MLD. The destination of the EPCS Priority Access Teardown frame is the MAC address of the AP with which the tearing down non-AP EHT STA is associated or the MAC address of the AP that is affiliated with the AP MLD with which the tearing down non-AP MLD is associated and that is operating on the same link on which the EPCS Priority Access Teardown Request frame is transmitted. The tearing down non-AP MLD shall change the EPCS priority access to the torn down state [11801] for all setup links so that subsequently transmitted traffic does not receive EPCS priority access treatment.
2. [10381] During the process of disassociating a non-AP MLD, the AP MLD shall transition EPCS priority access to the torn down state for that non-AP MLD.

**35.17.2.2.3 Procedures at the [11622] initiating AP MLD**

When instructed to do so by a higher layer function triggered via an external interface, and upon receipt of an MLME-EPCSPRIACCESSENABLE.request primitive, an AP MLD that supports this functionality shall follow the procedure below to request the change of the EPCS priority access for an associated non-AP MLD to the enabled state.

NOTE 1—The definition of the external interface is out of the scope of this standard.

1. An AP MLD with dot11SSPNInterfaceActivated equal to true shall verify if the dot11EPCSPriorityAccessAuthorized for the non-AP MLD in the dot11InterworkingEntry is set to true.

NOTE 2—Successful verification is defined when the dot11EPCSPriorityAccessAuthorized for the non-AP MLD in the dot11InterworkingEntry is set to true. The verification [11802] of EPCS priority access authorization by an AP MLD with dot11SSPNInterfaceActivated equal to false is out of scope of this standard.

1. If the verification is successful (see NOTE 2 above), an AP that is operating on an enabled link and is affiliated with the initiating AP MLD shall transmit an EPCS Priority Access Enable Request frame (9.6.35.5 (EPCS Priority Access Enable Request frame format)) to the corresponding non-AP STA affiliated with an associated EPCS non-AP MLD, with EPCS priority access in the torn down state for that non-AP MLD.

The destination of the EPCS Priority Access Enable Request frame is [10262] either:

* the MAC address of the non-AP MLD indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSENABLE.request primitive or
* the MAC address of the non-AP STA that is operating on the same link on which the EPCS Priority Access Enable Request frame is transmitted and is affiliated with the non-AP MLD whose MAC address value is indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSENABLE.request primitive.
1. If an AP affiliated with the initiating AP MLD receives an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)) with a matching dialog token and a value of SUCCESS in the Status Code field, then the initiating AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.confirm primitive with a value of SUCCESS in the Status Code field indicating successful transition of EPCS priority access to the enabled state. The initiating AP MLD shall change EPCS priority access to the enabled state so that subsequently transmitted traffic receives EPCS priority access treatment using the procedure defined in 35.17.3 (EPCS priority access procedure).
	1. The initiating EPCS AP MLD may include the Priority Access Multi-Link element in the EPCS Priority Access Enable request frame to allow the destination EPCS non-AP MLD to employ priority access [11804] on all setup links using the included EPCS EDCA parameter set and/or MU EDCA parameter set.
2. If an AP affiliated with the initiating AP MLD receives an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)) with a matching dialog token and a value not equal to SUCCESS in the Status Code field, then the initiating AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.confirm primitive with the status code from the response frame indicating the failure to change EPCS priority access to the enabled state. The initiating AP MLD shall not apply the EPCS priority access procedure. The external interface that triggers the EPCS priority access is responsible for managing reattempts after receiving responses with a value other than SUCCESS.

When triggered via an external interface, and upon receipt of an MLME-EPCSPRIACCESSTEARDOWN.request primitive, an EPCS AP MLD shall use the following procedure for changing the EPCS priority access state to torn down.

NOTE 3—An AP MLD can initiate the teardown procedure regardless of whether the AP MLD or the non-AP MLD initiated the process to enable EPCS priority access.

An AP affiliated with the tearing down AP MLD shall transmit an EPCS Priority Access Teardown frame (9.6.35.7 (EPCS Priority Access Teardown frame details)) to a non-AP STA affiliated with an associated EPCS non-AP MLD. The destination of the EPCS Priority Access Teardown frame is [10264] either:

* the MAC address of the non-AP MLD indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSTEARDOWN.request primitive or
* the MAC address of a non-AP STA that is affiliated with the non-AP MLD whose MAC address value is indicated by the value of the PeerSTAAddress parameter in the MLME-EPCSPRIACCESSTEARDOWN.request primitive.

The tearing down AP MLD shall change the EPCS priority access state to torn down [11801] for all set-up links. [10382] During the process of disassociating a non-AP MLD, the AP MLD shall transition EPCS priority access to the torn down state for that non-AP MLD.

NOTE 4—The definition of the external interface is out of scope of this standard.

**35.17.2.2.4 Procedure at the receiving AP MLD**

Upon receipt of an EPCS Priority Access Enable Request frame (9.6.35.5 (EPCS Priority Access Enable Request frame format)), an EPCS AP MLD shall use the following procedure to enable EPCS priority access for the requesting non-AP MLD.

1. The receiving AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.indication primitive.
2. Upon receipt of the MLME-EPCSPRIACCESSENABLE.response primitive, the receiving AP MLD shall reply to the initiating non-AP MLD with an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)) using the following procedure:
	1. For an AP MLD with dot11SSPNInterfaceActivated equal to true, if the dot11EPCSPriorityAccessAuthorized for the requesting non-AP MLD in the dot11InterworkingEntry is set to true indicating the requesting non-AP MLD is verified for EPCS priority access, the AP MLD shall set the Status Code field to a value of SUCCESS.
	2. For an AP MLD with dot11SSPNInterfaceActivated equal to true, if the dot11EPCSPriorityAccessAuthorized for the requesting non-AP MLD in the dot11InterworkingEntry is set to false, the AP MLD shall set the Status Code field to a value of EPCS\_DENIED\_UNAUTHORIZED.
	3. If the receiving AP MLD cannot support EPCS priority access for the initiating non-AP MLD for any other reason, the receiving AP MLD shall set the Status Code field with a value of EPCS\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field).

NOTE 4—The verification for AP MLD with dot11SSPNInterfaceActivated equal to false is out of scope of this standard.

* 1. [10081] If the receiving AP MLD is unable to verify that the non-AP MLD is authorized for any reason, such as a communication failure or overload condition, the receiving AP MLD shall set the Status Code field with a value of EPCS\_DENIED\_VERIFICATION\_FAILURE as defined in 9.4.1.9 (Status Code field).
1. If the Status Code in the MLME-EPCSPRIACCESSENABLE.response primitive is equal to SUCCESS, the receiving AP MLD STA shall set the state of the EPCS priority access to enabled for the requesting non-AP MLD.
	1. The receiving AP MLD may include the Priority Access Multi-Link element in the EPCS Priority Access Enable response frame to allow the requesting non-AP MLD to employ priority access using the included EDCA parameter set and/or MU EDCA parameter set on the corresponding links.
2. If the Status Code in the MLME-EPCSPRIACCESSENABLE.response primitive is equal to a value other than SUCCESS, the receiving AP MLD shall keep EPCS priority access in the torn down state for the requesting non-AP MLD.

Upon receipt of an EPCS Priority Access Teardown frame (9.6.35.7 (EPCS Priority Access Teardown frame details)), an EPCS AP MLD with EPCS priority access enabled state shall use the following procedure to tear down EPCS priority access.

1. The receiving AP MLD shall issue an MLME-EPCSPRIACCESSTEARDOWN.indication primitive.
2. The receiving AP MLD shall change the EPCS priority access state to torn down [11801] for all links for the requesting non-AP MLD.

**35.17.2.2.5 Procedures at the receiving non-AP MLD**

Upon receipt of an EPCS Priority Access Enable Request frame (9.6.35.5 (EPCS Priority Access Enable Request frame format)), a EPCS non-AP MLD with EPCS priority access in the torn down state shall use the following procedure to enable EPCS priority access.

1. The receiving non-AP MLD shall issue an MLME-EPCSPRIACCESSENABLE.indication primitive.
2. Upon receipt of the MLME-EPCSPRIACCESSENABLE.response primitive, a non-AP STA affiliated with the receiving non-AP MLD shall reply to the initiating AP MLD with an EPCS Priority Access Enable Response frame (9.6.35.6 (EPCS Priority Access Enable Response frame format)). The receiving non-AP MLD should set the Status Code field to a value of SUCCESS unless [12698] it is unable to support EPCS priority access for any reason., In that case, the non-AP MLD shall set the Status Code field to a value of EPCS\_DENIED\_OTHER\_REASON as defined in 9.4.1.9 (Status Code field).
3. If the Status Code in the MLME-EPCSPRIACCESSENABLE.response primitive is equal to SUCCESS, the receiving non-AP MLD shall change the state of the EPCS priority access to enabled so that subsequently transmitted traffic receives EPCS priority access treatment using the procedure defined in 35.17.3 (EPCS priority access procedure).
4. If the Status Code in the MLME-EPCSPRIACCESSENABLE.response primitive is equal to a value other than SUCCESS, the receiving non-AP MLD shall keep the torn down state of the EPCS priority access so it does not only apply to subsequently transmitted traffic.

Upon receipt of an EPCS Priority Access Teardown frame (9.6.35.7 (EPCS Priority Access Teardown frame details)), a EPCS non-AP MLD with EPCS priority access enabled shall use the following procedure to tear down EPCS priority access.

1. The receiving non-AP MLD shall issue an MLME-EPCSPRIACCESSTEARDOWN.indication primitive.
2. The receiving non-AP MLD shall change the EPCS priority access state to torn down [11801] for all links so that subsequently transmitted traffic does not receive EPCS priority access treatment.

**9.4.1.9 Status Code field**

***Insert the following row into Table 9-78 (Status codes) while maintaining the numerical order and updating the reserved range:***

**Table 9-78—Status codes**

|  |  |  |
| --- | --- | --- |
| **Status code** | **Name** | **Meaning** |
| **[10081]<ANA>** | **EPCS\_DENIED\_VERIFICATION\_FAILURE** | **EPCS priority access temporarily denied because the AP MLD experienced a failure while attempting to obtain authorization information.** |