10.25.2 QMF policy advertisement and configuration procedures

10.25.2.1 Overview

QMF policies are exchanged and implemented between two QMF STAs. QMF policy is communicated through the QMF Policy element as described in 8.4.2.122.

A non-AP QMF STA operating in a BSS shall not transmit a QMF Policy frame to an AP.

The access category for a QMF that is transmitted by a non-AP QMF STA to a peer QMF STA shall be determined from the QMF policy received from the peer if a QMF policy has been received from the peer. Otherwise, the default policy shall be used. The access category for a QMF that is transmitted by a QMF AP is determined from the QMF policy configured at that AP.

In a BSS or MBSS, the access category for any management frame may be reconfigured. For example, vendor-specific and vendor-specific protected management frames might be reconfigured to suit the vendor application requirements.

10.25.2.2 QMF policy change in an infrastructure BSS or in an MBSS

A QMF Policy Change frame is transmitted by a QMF STA to request a change to the QMF policy that the requesting QMF STA will use for transmitting management frames to the peer QMF STA in an infrastructure BSS or in an MBSS.

A STA may transmit a QMF Policy Change frame to request a change in the QMF policy for transmitting to a peer STA. A non-AP QMF STA that receives a QMF Policy Change frame may either accept or reject the request. An associated non-AP QMF STA may transmit a QMF Policy Change to the QMF AP in its BSS only if the most recently received Extended Capabilities element from the AP has its QMFReconfiguration-Activated subfield equal to 1. If the AP rejects the request, the associated QMF STA shall not request the same policy reconfiguration from the AP within the lifetime of its association.

An AP shall respond to a QMF Policy Change frame received from an associated STA by transmitting a QMF Policy frame. If the QMFReconfigurationActivated subfield is zero in the Extended Capabilities element in the Beacon frame, an AP that receives a QMF Policy Change frame from an associated STA shall respond with a QMF Policy frame, with Status Code set to 37 (The request has been declined). If the QMFReconfigurationActivated subfield is 1 in the Extended Capabilities element in the Beacon frame, an AP that receives a QMF Policy Change frame from an associated STA shall evaluate the QMF Policy included in the frame, and shall respond to the request with the resulting QMF Policy element and Status Code set to 0 (Successful) if it accepts the policy change, or 37 (The request has been declined) if it rejects the policy change. A QMF AP may transmit a QMF Policy frame with Status Code set to 0 (Successful) to an associated QMF STA without having first received a QMF Policy Change frame from that STA.

If an accept status is received in a QMF Policy frame within dot11QMFPolicyChangeTimeout of having transmitted a QMF Policy Change frame with the same dialog token to the STA that transmitted the QMF Policy frame, then the requesting QMF STA shall transmit any subsequently queued management frames to the peer QMF STA in accordance with the changes to the QMF policy that were indicated in the QMF Policy Change frame.

If a reject status is received in a QMF Policy frame within dot11QMFPolicyChangeTimeout of having transmitted a QMF Policy Change frame with the same dialog token to the STA that transmitted the QMF Policy frame as a response to a QMF Policy Change frame, then the configuration change request is rejected and the requesting QMF STA shall continue to transmit Management frames to the peer QMF STA in accordance with the previously configured QMF policy. The requesting QMF STA shall not transmit a QMF

Policy Change frame with a previously rejected QMF policy to a peer QMF STA within dot11QMFPolicyChangeTimeout from the time the requesting STA received the rejection frame.

If the requesting STA does not receive a QMF Policy frame in response to a QMF Policy Change frame within dot11QMFPolicyChangeTimeout, then the requesting STA shall continue to transmit frames according to the previously configured QMF policy.

If a QMF STA has received an Extended Capabilities element with the QMFReconfigurationActivated subfield equal to zero or has not received an Extended Capabilities element from a destination QMF STA, the QMF STA shall not transmit a QMF Policy Change frame to the destination QMF STA.

A QMF STA in an MBSS or a QMF AP may set dot11QMFReconfigurationActivated to true or false. A non-AP QMF STA in an infrastructure BSS shall set dot11QMFReconfigurationActivated to true and shall set the QMFReconfigurationActivated subfield to one in transmitted (re)association requests. A non-AP QMF STA with dot11QMFReconfiguationActivated equal to true shall accept any received QMF Policy frame from its associated AP. A QMF STA with dot11QMFReconfigurationActivated equal to false shall respond with a QMF Policy frame, with the current QMF Policy element and Status Code set to 37 (The request has been declined).

The QMFReconfigurationActivated subfield shall be set to one in the Extended Capabilities element when dot11QMFReconfigurationActivated is true. The QMFReconfigurationActivated subfield shall be set to zero in the Extended Capabilities element when dot11QMFReconfigurationActivated is false.

The SME of a peer QMF STA uses the MLME-QMFPOLICY primitives (see 6.3.83.2 to 6.3.83.3) to transmit a QMF Policy frame to a peer STA. The SME of a peer STA uses the MLME-QMFPOLICY.request primitive to transmit a QMF Policy frame to a peer STA. The MLME of a peer QMF STA shall set the Dialog Token to 0 and set the Status Code to 0 (Successful) when the QMF Policy frame is transmitted unsolicited to the peer STA.

The SME of a peer QMF STA uses the MLME-QMFPOLICYCHANGE primitives (see 6.3.83.4 to 6.3.83.7) to exchange the QMF Policy Change and QMF Policy frames. The SME of a peer STA uses the MLME-QMFPOLICYCHANGE.request primitive to transmit a QMF Policy Change frame to a peer STA. The value of the dialog token in the MLME-QMFPOLICYCHANGE.request shall be set to a value in the range of 1 to 255.

The SME of the peer STA evaluates the QMF policy and uses the MLME-QMFPOLICYCHANGE.response primitive to transmit a QMF Policy frame to the STA including the result of the QMF policy change. The value of the dialog token in the MLME-QMFPOLICYCHANGE.response shall be set to the value of the dialog token received in the corresponding MLME-QMFPOLICYCHANGE.indication.

When the QMF STA SME receives an MLME-QMFPOLICYCHANGE.confirm or MLME-QMFPOLICY.indication with Result Code of SUCCESS, it shall set the new QMF policy using the MLME-QMFPOLICYSET.request.

10.25.2.3 QMF policy configuration in an infrastructure BSS

A QMF AP shall include the QMF Policy element in Beacon frames that it transmits. Non-AP QMF STAs acquire QMF policy configuration information from QMF Policy elements received in Beacon, Association Response, Reassociation Response, Probe Response, and QMF Policy frames. The interpretation of the QMF Policy element is described in 10.25.3.

An associated QMF STA transmitting QMFs shall transmit those frames in accordance with the QMF policy received from its associated AP in the following order of precedence, from highest to lowest: