IEEE P802.11
Wireless LANs

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| Priority Code Point to UP to AC Comments Resolution |
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Abstract

This document proposes a resolution of CC17 comments related to Priority Code Point to UP and UP to AC mappings in 802.11ak D0.02.

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# Background

IEEE 802.1Q and IEEE 802.1D by default interpret priority code points in a slightly different way. For example, by default in 802.1D priority 2 is lower than priority zero while in 802.1Q it is higher. Prior to 802.11ak, 802.11 had exclusively used the 802.1D interpretation.

P802.11ak drafts D0.01 and D0.02 propose to handle this for GLK associations, which must be usable as transit links in an 802.1Q conformant network, by adjusting the default UP (User Priority) to AC (Access Category) mappings so as to work better with 802.Q priorities and by providing that this mapping be configurable. There is an implicit assumption in D0.01 and D0.02 that the Priority Code Point of frames received is used as the UP.

To resolve the comments listed below, this document proposes that the 802.11ak Draft be changed so that the UP to AC mappings are untouched. Instead, there would be a configurable Priority Code Point to UP mapping whose default was not the identity mapping.

# Comments

## CID 7

Comment: There seem to be three voice categories in Table 9-1

Commenter’s Suggested Remedy: Make GLK priority 2 'Background' rather than 'Voice if that is correct.

New Response: Accept

## CID 39

Comment: If the UP mapping is configurable, we need MIB variables to configure them.

Commenter’s Suggested Remedy: When such configuration is added to the MIB, it should be described here.

New Response: Revise: Add Priority Code Point to UP mapping to MIB instead of UP to AC mapings.

## CID 67

Comment: Some HW may have assumptions of UP to AC mapping. Sniffers and wIDS systems may again not know roles, and some products may be detecting and reacting to the presence of Voice from co-channel AP.

Commenter’s Suggested Remedy: Rather than changing UP, a simple mapping table can be employed for PCP to UP on transmission and should be explicitly called out. The option remains to carry VLAN tagged frame using existing PCP definitions.

New Response: Accept.

# Draft Changes

***Change text in Introduction Point 3:***

1. Priority Code Points in 802.1Q have a different default meaning that they do in IEEE Std 802.1D. For example, in 802.1Q, priority 2 is, by default, higher priority than priority 1 while in 802.1D it is lower. Thus GLK STAs use a ~~different UP to AC~~ Priority Code Point to UP mapping by default and that mapping may be configured.

***Revised text change to Clause 5.1.1.2, Determination of UP, including addition of a brief table:***

The QoS facility supports eight priority values, referred to as *UPs*. The values a UP may take are the integer values from 0 to 7 and are identical to the IEEE Std 802.1D priority tags. An MSDU with a particular UP is said to belong to a traffic category (TC) with that UP. The UP is provided with each MSDU at the medium access control service access point (MAC\_SAP) either directly, in the UP parameter, or indirectly, in a TSPEC or SCS Descriptor element designated by the UP parameter. For an MSDU received on a GLK MAC\_SAP, there will be a priority code point determined by a VLAN tag in the frame or, in the absence of such a tag, a default value determined by the MAC\_SAP. This priority code point is mapped into a UP with a configurable mapping that defaults to the mapping below.

|  |  |
| --- | --- |
| GLK Priority Code Point | UP |
| 7 | 7 |
| 6 | 7 |
| 5 | 6 |
| 4 | 5 |
| 3 | 4 |
| 2 | 3 |
| 1 | 1 |
| 0 | 0 |

***Delete from the Draft all changes to Clause 9.2.4.2, HCF contention based channel access (EDCA).***

***Need to add configuration and default for Priority Code Point to UP mapping to Annex C, ASN.1 encoding of the MAC and PHY MIB.***

***Delete from the draft all changes to Annex V.3.3, Example of QoS mapping from different networks.***