IEEE P802.11
Wireless LANs

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| Clause 5 Proposed Changes |
| Date: 2015-03-11 |
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|  |  |  |  |  |

Abstract

This document contains proposed changes to Clause 5, for TGak consideration

R0 – Initial discussion document.

R1 – Updates per face-to-face review

# CID 33

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| --- | --- | --- | --- | --- |
| 33 | 14.17 | 5.2 | Since the real problem is that the non-GLK 802.11 MAC Service does not meet all the requirements of a MAC Service that can support 802.1Q Bridging. | Add text to 5.2 the describes two different MAC Service semantics - GLK and non-GLK. The non-GLK MAC Service supports LPD, does not prevent group-addressed frame reflection, ability to carry SA and DA that do not match either end of the WM link (through the use of four address format), etc. The GLK MAC Service supports EPD, does prevent reflected group-addressed frames, etc. Then, there is yet another MAC Service for GLK APs, which adds the port-vector parameter. So, there are three different MAC Services in 802.11.The effects of this impact language in clause 4 that talks about the MAC Service. For example, in 4.3.21.4.2, the difference between a GLK IBSS and a non-GLK IBSS is this difference in the service provided. Review clause 4 (and perhaps other parts of the document) for such places where the MAC Service differences should be discussed. |

**Discussion:**

After discussion, it has been agreed that the concept at the 802.1Q level that is needed for the station vector parameter is the service\_access\_point\_identifier parameter described in 802.1Q-2012-Ed. So, this concept is the basis for the proposal below.

**Proposed changes:**

***Change text as follows:***

**5.1 Overview of MAC services**

**5.1.1.1 General**

This service provides peer LLC entities or bridges with the ability to exchange MSDUs. To support this service, the local MAC uses the underlying PHY-level services to transport an MSDU to a peer MAC entity, where it is delivered to the peer LLC or bridge.

***Change text as follows:***

**5.1.5.2 Non-AP non-GLK STA role**

The MAC data plane architecture of a non-AP non-GLK STA is …

***Change the caption on Figure 5-3 to add “Non-GLK”.***

***Change text as follows:***

**5.1.5.3 Non-GLK AP role**

In a non-GLK AP, the MAC …

***Change the caption on Figure 5-4 to add “Non-GLK”.***

***Insert new Clause after the last subclause of 5.1.5, as follows:***

**5.1.5.5a GLK STA role**

In a GLK STA, the MAC data plane architecture includes provision of the GLK MAC service interface to an 802.1AC IEEE 802.11 General Link convergence function in its role-specific behavior block, as shown in Figure 5-6a (Role-specific behavior block for GLK STA).This block performs destination address filtering as described in 9.2.8 (MAC data service), and provides access to the 802.1AC convergence function and ultimately to the bridge ports for MSDUs that are not addressed to this STA.



**Figure 5-6a—Role-specific behavior block for GLK STA**

***Change text as follows:***

**5.2 Non-GLK MAC data service specification**

**5.2.1 General**

The IEEE Std 802.11 MAC supports the following service primitives when GLK is not in use as defined in ISO/IEC 8802-2: 1998:
— MA-UNITDATA.request
— MA-UNITDATA.indication
— MA-UNITDATA-STATUS.indication

***Insert new Clause after 5.2, as follows:***

**5.3 GLK MAC data service specification**

**5.3.1 General**

In a GLK STA, the MAC data plane architecture includes a MAC service with an additional parameter, a set of service\_access\_point\_identfiers.

A GLK STA coordinates with the 802.1AC [Bn] IEEE 802.11 General Link convergence function to create a virtual point-to-point LAN for each GLK link to an associated or peered GLK STA. This point-to-point LAN is presented by the convergence function as a unique ISS SAP which is ultimately mapped to an 802.1Q bridge port. Each such SAP is identified by a locally unique service\_access\_point\_identifier, generated by the STA and the convergence function.

When GLK is in use, the MAC service primitives presented have an additional parameter: station vector. On an MA-UNITDATA.request, this parameter is a set of service\_access\_point\_identifiers specifying the one or more GLK links that are to be used for this request. On an MA-UNITDATA.indication, it is a vector of exactly one service\_access\_point\_identifier specifying the GLK link that carried this MSDU.

The IEEE Std 802.11 MAC supports the following service primitives when GLK is in use as defined in ISO/IEC 8802-2: 1998:
— MA-UNITDATA.request
— MA-UNITDATA.indication
— MA-UNITDATA-STATUS.indication

IEEE Std 802.11 places restrictions and semantics on the parameter values for these primitives, as described in 5.3.2 (MA-UNITDATA.request) to 5.3.4 (MA-UNITDATA-STATUS.indication).

Discussion: Do we duplicate the subsequent 7 pages, just adding the station vector parameter, and tweaking language to replace LLC with 802.1Q bridge, etc/ If not duplicating, how else do/can we show this service definition?

Make the new GLK stuff 5.2.2 (not 5.3). Make service primitive details the next section (in common), and just show the differences where needed.

**Proposed resolution: Revised**

Make the changes as shown in 11-15/0415r0.