IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Remaining DEE3 Assigned Comments | | | | |
| Date: 2016-01-20 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Donald Eastlake | Huawei Technologies | 155 Beaver Street, Milford, MA 01757, USA | +1-508-333-2270 | d3e3e3@gmail.com |
|  |  |  |  |  |

Abstract

This document proposes resolutions for the remaining LB212 comments currently assigned to Donald E. Eastlake 3rd.

**Table of Contents**

CID 50 2

CID 62 2

CID 134 2

CID 412 3

CID 53 3

4.3.18.4 IEEE Std 802.11 components and mesh BSS 3

13.2.3 Mesh profile 4

# CID 50

**Comment:** I think that including "DLS/TDLS" in this picture raises some very interesting questions. In the case of non-GLK, the MAC can simply determine whether any particular MSDU can use a direct link based on the RA. In the case of GLK, the MAC cannot determine this. So it falls to the job of the bridge to select DLS as an apparent port (or set of ports). This is far from obvious.

**Proposed Change:** Add in clause 4 a description of how DLS/TDLS interacts with bridging. This might include one or more ports that identify DLS peers. Confirm that the MAC unitdata SAP supports this functionality - i.e. allows the bridge to select a DLS peer as the immediate recipient for a bridged MSDU.  
  
Alternatively determine that DLS and TDLS is not commercially relevant, and avoid the complexity of supporting it.

**Resolution: Revise:** Insert at the end of the last paragraph of 4.3.24.3.1 the following: “The decision which peer STA an MSDU is sent to is made by an attached IEEE Std. 802.1Q bridge. This includes such cases as deciding, at a GLK non-AP STA in an instrastructure BSS, between sending an MSDU to its associated AP or over any DLS/TDLS link that might exist.”

# CID 62

**Comment:** "Editor's Note: We plan to take four address use by 802.11ah into account at a later  
date because 802.11ah is not in the 802.11REVmc D4.0 base for this draft."  
  
This is not the way to handle this. 802.11ah \*is\* in your baseline, and you can propose changes to it to support GLK.

**Proposed Change:** Add support for 802.11ah features, or indicate that it cannot support GLK.  
  
Pay particular attention to the 802.11ah relaying function.

**Resolution: Revise:** Insert a new paragraph in 4.3.23.1 as follows: “GLK STAs can be Mesh STAs. All Mesh STAs in a GLK MBSS are Mesh STAs. GLK STAs can support GLK peering through DMG Relays but GLK S1G STAs do not support and cannot use S1G Relays.”

# CID 134

**Comment:** Figure 4-14c is a useful general overview of the GLK architecture and I think it would be more useful to appear earlier in the text.

**Proposed Change:** Move Figure 4-14c to clause 4.3.23.1 and re-number as required. Some of the text associated with the Figure may need to be moved and re-written.

**Resolution: Revise:** Insert at the end of the first paragraph in 4.3.23.1: “For an infrastructure GLK example, see Figure 4-13b (Infrastructure BSS with GLK links).”

# CID 412

**Comment:** "A GLK mesh STA coordinates with the 802.1AC IEEE 802.11 General Link Convergence function": the text in this paragraph looks more like it belongs in cause 4 than in a normative clause. Either specify what frames the mesh STA uses or reference the subclause that specifies those communications.

**Proposed Change:** Reference the clause(s) that specify the frames, elements, etc. used in the coordination with the convergence function.

**Resolution: Revise:** Change the paragraph beginning with the cited sentence as follows:

“A GLK mesh ~~STA coordinates with the 802.1AC IEEE 802.11 general link convergence function to create~~ gate creates a virtual point-to-point LAN to each mesh gate in the MBSS other than itself. Each of these point-to-point LANs is presented by the convergence function as a unique Internal Sublayer Service SAP that 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 (see 5.2.1a (GLK MAC data service specification)).”

# CID 53

**Comment:** I do not understand how GLK interacts with Mesh. For example, is GLK a property of the mesh pairing, requiring all nodes in the mesh to support GLK?  
  
If not, how can selection of GLK be made if the capabilities of the end node are not known?

**Proposed Change:** Add to clause 4 a description of how GLK works with mesh. Consider adding in clause 13 support for GLK as part of the set of characteristics that determine if you can pair with a mesh.

**Resolution: Revise:** Revise: Change text as at the bottom of submission 11-16/170.

## 4.3.18.4 IEEE Std 802.11 components and mesh BSS

***Change text as follows:***

However, instead of existing independently, an non-GLK MBSS might also access the distribution system (DS) or a GLK MBSS might access one or more bridged LANs. The MBSS interconnects with other BSSs ~~through the DS~~ in this way. Then, mesh STAs can communicate with nonmesh STAs. Therefore, a logical architectural component is introduced in order to integrate the MBSS with the DS or bridged LAN — the mesh gate. Data move between an MBSS and the DS or bridged LAN via one or more mesh gates. Thus, the mesh gate is the logical point at which MSDUs from an MBSS enter either the ~~IEEE Std 802.11~~ DS, via the DSAF, or a bridged LAN. Once an MBSS contains a mesh gate that connects it to the ~~IEEE Std 802.11~~ DS or bridged LAN, the MBSS can be integrated with other infrastructure BSSs too, given that their APs connect to the same DS or bridged LAN. Several mesh gates are shown in Figure 4-9 (Example MBSS containing mesh STAs, mesh gates, APs, and portals) connecting different MBSSs to the DS.

When an MBSS accesses the ~~IEEE Std 802.11~~ DS or a bridged LAN through its mesh gate, the MBSS can be integrated with a non-IEEE-802.11 LAN. To integrate the ~~IEEE Std 802.11~~ DS to which this MBSS connects, the DS needs to contain a portal. See 4.3.7 (Integration with non-IEEE Std 802.11 LANs). Consequently, mesh gate and portal are different entities. The portal integrates the IEEE Std 802.11 architecture with a non-IEEE-802.11 LAN (e.g., a traditional wired LAN), whereas the mesh gate integrates the MBSS with the ~~IEEE Std 802.11~~ DS or a bridged LAN.

## 13.2.3 Mesh profile

***Insert a new item in the mesh profile list in as follows:***

g) GLK support — specified by dot11GLKImplemented