IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 802.11  GLK ESS Removal | | | | |
| Date: 2016-02-22 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | Email |
| Philippe Klein | Broadcom Ltd | 5300 California Ave. Irvine, CA 92617 | +972 (54) 3134500 | [philippe.klein@broadcom.com](mailto:philippe.klein@broadcom.com) |

**Abstract**

This submission is an attempt to solve the GLK ESS definition issue.

Remove the GLK ESS from Draft P802.11ak\_D1.5-06 with redline

History:

r0 – initial submission

r1 – new submission - remove option 1, use draft D1.5-06 as baseline, correct figures 4-13b & 4-13c

r2 - xxx

#### Remove the GLK ESS definition and occurrences from the draft

#### *Remove the GLK ESS definition in 3.2:*

## 3.2 Definitions specific to IEEE Std 802.11

#### *Modify 4.3.23.4.3 ass follows*

#### *Modify Fig 4-13b to add the GLK DSAF layer*

#### *Replace the sub paragraph as below*

#### *Modify Fig 4-13c*

#### *Note: The naming of the interface DS\_SAP between the AP and the DSAF needs to be double checked*

##### 4.3.23.4.3 GLK infrastructure BSS

{…}



**Figure 4-13b—Infrastructure BSS with GLK links**

Figure 4-14c shows, as an example, the data plane of an ESS and GLK BSSs.



**Figure 4-13c—Example of the data plane of an ESS with GLK BSSs**

#### *Modify 4.5.3.4 & 4.5.3.5 as follows*

#### 4.5.3.4 Reassociation

***Change text as follows:***

Association is sufficient for no-transition message delivery between IEEE Std 802.11 STAs. Additional functionality is needed to support BSS-transition mobility. The additional required functionality is provided by the reassociation service. In an ESS, reassociation is one of the services in the DSS.

For GLK links, reassociation is an one optional mobility service that could be supported by the GLK APs.

*Note: the mobility service is not a function of the 802.1AC Convergence Function. The GLK links are an overlay above 802.11 and are established whenever a GLK non AP STA is associated to a GLK AP. How STA and AP associate, reassociate or diassociate is orthogonal to the GLK link. However the 802.11ak specification must describe even in general term the mobility service for GLK APs to avoid confusion with the mobility service provided by the DS on non GLK AP or the non GLK part of a “mixed” AP.*

The reassociation service is invoked to “move” a current association of a STA from one AP to another. In an ESS, the reassociation service informs ~~this keeps~~ the DS ~~informed~~ of the current mapping between AP and STA as the STA moves from BSS to BSS within ~~an~~ the ESS.

For GLK links, the reassociation service informs the 802.11 General Link convergence function of the current mapping between the GLK STA and the GLK AP as the STA moves between GLK BSSs . The convergence function destroys the existing GLK link and establishes a new GLK link. The GLK AP and the GLK non-AP STA each coordinate with their IEEE 802.11 General Link convergence functions so that the convergence function destroys, disables, or maintains the existing Internal Sublayer Service SAP. If the convergence function destroys or disables the Internal Sublayer Service SAP, the function then creates or enables a new Internal Sublayer Service SAP. The service then maps these SAPs to each end of the new GLK link. This process allows updates of point to point virtual LANs (see IEEE Std 802.1AC). Reassociation also enables changing association attributes of an established association while the STA remains associated with the same AP. Reassociation is always initiated by the non-AP STA.

#### 4.5.3.5 Disassociation

***Change text as follows:***

The disassociation service is invoked when an existing association is to be terminated. In an ESS, disassociation is one of the services in the DSS.

For GLK links, disassociation is one of the services of the IEEE 802.11 General Link convergence function service.

For a non-GLK STA, the act of becoming disassociated invokes the disassociation service, which voids any existing STA to AP mapping know to the DS, for the disassociating STA. ~~In an ESS, this tells the DS to void existing association information. Attempts to send MSDUs via the DS to a disassociated STA will be unsuccessful.~~ How the information provided by the disassociation service is managed within the DS is not specified by this standard. For a GLK AP, disassociation removes or disables the corresponding Internal Sublayer Service SAP being provided by that GLK AP. The 802.1Q bridge uses this information to disable bridging for the non-AP STA.

For a GLK link, the disassociation service informs the 802.11 General Link convergence function that the GLK STA has disassociated, which destroys the GLK link. The GLK AP and the GLK non-AP STA each coordinate with their IEEE 802.11 General Link Convergence function so that the convergence function destroys or disables the Internal Sublayer Service SAP that was previously mapped to the destroyed GLK link. This process destroys the previously existing point to point virtual LAN (see IEEE Std 802.1AC) between the GLK STA and the GLK AP. Attempts to send MSDUs via a destroyed point to point link will be unsuccessful.