IEEE P802.11  
Wireless LANs

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| 802.11 GLK Draft PAR | | | | |
| Date: 2012-11-13 | | | | |
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Abstract

This is a draft PAR for the IEEE 802.11ak Project as approved by the IEEE 802.11 General Link (GLK) Study Group and the IEEE 802.11 Work Group.

# PAR

**P802.11**

**Submitter Email:**   
**Type of Project:** Amendment to IEEE Standard 802.11-2012   
**PAR Request Date:** TBD   
**PAR Approval Date:   
PAR Expiration Date:   
Status:** Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

**1.1 Project Number:** P802.11ak  
**1.2 Type of Document:** Standard   
**1.3 Life Cycle:** Full Use

**2.1 Title:** Standard for Information technology--Telecommunications and information exchange between systems Local and metropolitan area networks--Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications-- Amendment: Enhancements For Transit Links Within Bridged Networks

**3.1 Working Group:** Wireless LAN Working Group (C/LM/WG802.11)   
**Contact Information for Working Group Chair**

**Name:** Bruce Kraemer   
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**3.2 Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM)   
**Contact Information for Sponsor Chair**

**Name:** Paul Nikolich   
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**4.1 Type of Ballot:** Individual   
**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:**2015-05  
**4.3 Projected Completion Date for Submittal to RevCom:**2016-07

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 45

**5.2.a. Scope of the complete standard:** The scope of this standard is to define one medium access control (MAC) and several physical layer (PHY) specifications for wireless connectivity for fixed, portable, and moving stations (STAs) within a local area.

**5.2.b. Scope of the project:**This amendment specifies protocols, procedures, and managed objects to enhance the ability of IEEE P802.11 media to provide internal connections as transit links within IEEE Std 802.1Q bridged networks.  
 **5.3 Is the completion of this standard dependent upon the completion of another standard:**Yes. This amendment will require features to be standardized in parallel with IEEE P802.1Qbz. This project will be amending the IEEE Std 802.11-2012, and the IEEE P802.1Qbz project will make the corresponding changes that are necessary for the overall solution.  
 **5.4 Purpose:** The purpose of this standard is to provide wireless connectivity for fixed, portable, and moving stations within a local area. This standard also offers regulatory bodies a means of standardizing access to one or more frequency bands for the purpose of local area communication.

**5.5 Need for the Project:**There are a large number of new products including home entertainment systems and industrial control equipment that have both an IEEE 802.11 wireless station capability and a wired IEEE 802.3 Ethernet capability. IEEE 802.11 has media operating in the gigabit per second range and has standardized security and quality of service improvements. These developments raise a demand for the bridging of IEEE 802.11 media with the same bridging services as other media: as media internal to the network as well as media offering access to the network.  
 **5.6 Stakeholders for the Standard:**Vendors, users, administrators, designers, customers, and owners of mixed IEEE 802.11 wireless and other IEEE 802 networks.

**Intellectual Property   
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No  
**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

**7.1 Are there other standards or projects with a similar scope?:**   
Yes. IEEE Std 802.11-2012 includes a definition for a Mesh Network which addresses a part of this need. However, the wired and wireless parts of a mixed wired and wireless mesh network are opaque to each other, resulting in inefficiencies.  
  
**7.2 Joint Development**  
**Is it the intent to develop this document jointly with another organization?:** No  
  
**8.1 Additional Explanatory Notes (Item Number and Explanation):**

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**References:**

1. IEEE Std 802.1Q-2011, “Media Access Control Bridges and Virtual Bridge Local Area Networks”, 31 August 2011.
2. IEEE Std 802.11-2012, “… Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications”, 6 February 2012.