

P802.11ak

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Type of Project: Amendment to IEEE Standard 802.11-2012

PAR Request Date: 09-Oct-2012

PAR Approval Date: 05-Dec-2012

PAR Expiration Date: 31-Dec-2016

Status: PAR for an Amendment to an existing IEEE Standard

Root Project: 802.11-2012

1.1 Project Number: P802.11ak

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: IEEE 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

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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: 05/2015

4.3 Projected Completion Date for Submittal to RevCom: 08/2016

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

If yes please explain: 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 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

If Yes please explain: 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.

and answer the following

Sponsor Organization: C/LM

Project/Standard Number: 802.11-2012

Project/Standard Date: 29-Mar-2012

Project/Standard Title: IEEE 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

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): 5.3: IEEE P802.1Qbz title: Standard for Local and metropolitan area networks--Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks Amendment: Enhancements to Bridging of 802.11