
myProject™ - P802.11aa PAR Detail

Submitter Email: ganesh.venkatesan@intel.com

Type of Project: Amendment to IEEE Standard

PAR Request Date: 14-Feb-2008

PAR Approval Date: 27-Mar-2008

PAR Expiration Date: 31-Dec-2012

PAR Signature Page on File: Yes

Status: Amendment to an Existing IEEE Standard, Std 802.11-2007

Project: 802.11

Root Project: 802.11-2007

1.1 Project Number: P802.11aa

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

1.4 Is this project in ballot now? No

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: MAC enhancements for robust audio video streaming

3.1 Working Group: Wireless LAN Working Group (C/LM/WG802.11)

Contact Information for Working Group Chair

Bruce Kraemer

Email: bkraemer@marvell.com

Phone: 321-751-3988

Contact Information for Working Group Vice-Chair

Jon Rosdahl

Email: jrosdahl@ieee.org

Phone: 801-756-1496

3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks (C/LM)

Contact Information for Sponsor Chair

Paul Nikolich

Email: p.nikolich@ieee.org

Phone: 857.205.0050

Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: 11/2010

4.3 Projected Completion Date for Submittal to RevCom: 11/2011

5.1 Approximate number of people expected to work on this project: 50

5.2 Scope: This amendment specifies enhancements to the 802.11 MAC (Medium Access Control) for robust audio video

streaming, while maintaining co-existence with other types of traffic. The MAC enhancements specified in this amendment enable: Graceful degradation of audio video streams when there is insufficient channel capacity, by enabling packet discarding without any requirement for deep packet inspection, Increased robustness in overlapping BSS environments, without the requirement for a centralised management entity, Intra-Access Category prioritization of transport streams by modifying EDCA timing and parameter selection without any requirement for deep packet inspection, Improved link reliability and low jitter characteristics for multicast/broadcast audio video streams, Interworking with relevant 802.1AVB mechanisms (802.1Qat, 802.1Qav, 802.1AS)

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This amendment specifies a standard for robust audio video stream transport over 802.11 for consumer/enterprise applications.

5.5 Need for the Project: 802.11 devices are widely deployed. While the devices, including 802.11n Draft 2.0 devices, provide reliable data and voice performance, the performance of video streaming is not always of acceptable quality. A set of enhancements to 802.11 MAC can improve video streaming performance significantly while maintaining data and voice performance. A variety of 802.11-like proprietary implementations exist in the market today causing market fragmentation, co-existence and inter-operability issues. In addition, there are several competing and emerging wireless technologies that target this application space. Enhancing the 802.11 MAC to address video streaming performance issues will extend the applicability to 802.11 and eliminate the need for proprietary implementation and/or competing standards.

5.6 Stakeholders for the Standard: Semiconductor manufacturers, consumer electronic device manufacturers and service providers delivering entertainment content to homes.

Intellectual Property

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes

If yes, state date: 09/19/2007

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No

6.1.c. 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? No

7.2 Future Adoptions

Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? No

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

7.4 Additional Explanatory Notes: (Item Number and Explanation) Section 5.2/5.5 Expanded titles for referenced documents: 802.1Qat: Standard for Local and Metropolitan Area Networks - Virtual Bridged Local Area Networks - Amendment: 9: Stream Reservation Protocol (SRP)." 802.1Qav: Standard for Local and Metropolitan Area Networks---Virtual Bridged Local Area Networks - Amendment: Forwarding and Queuing Enhancements for Time-Sensitive Streams." 802.1AS: "Standard for Local and Metropolitan Area Networks - Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks." 802.11n: 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 4: Enhancements for HigherThroughput
