
myProject™ - P802.1AB PAR Detail

Submitter Email: tony@jeffree.co.uk

Type of Project: Modification to Approved PAR

PAR Request Date: 21-Jul-2008

PAR Approval Date: 26-Sep-2008

PAR Expiration Date: 31-Dec-2011

Status: Modification to a Previously Approved PAR for the Revision of a Standard 802.1AB-2005

Root PAR: P802.1AB **Approved on:** 27-Feb-2007

Project Record:

1.1 Project Number: P802.1AB

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and metropolitan area networks -- Station and Media Access Control Connectivity Discovery

Old Title: Standard for Local and metropolitan area networks -- Station and Media Access Control Connectivity Discovery

3.1 Working Group: Higher Layer LAN Protocols Working Group (C/LM/WG802.1)

Contact Information for Working Group Chair

Name: Anthony Jeffree

Email: tony@jeffree.co.uk

Phone: +44-161-973-4278

Contact Information for Working Group Vice-Chair

Name: Paul Congdon

Email: paul.congdon@hp.com

Phone: 916-785-5753

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

Contact Information for Sponsor Chair

Name: 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: 11/2008

4.3 Projected Completion Date for Submittal to RevCom: 07/2009

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

5.2 Scope: The scope of this standard is to define a protocol and management elements, suitable for advertising information to stations attached to the same IEEE 802 LAN, for the purpose of populating physical topology and device discovery management information databases. The protocol facilitates the identification of stations

Old Scope: The scope of this standard is to define a protocol and management elements, suitable for advertising information to stations attached to the same IEEE 802 LAN, for the purpose of populating physical topology and device discovery management

connected by IEEE 802 LANs/MANs, their points of interconnection, and access points for management protocols. This standard defines a protocol that: a) Advertises connectivity and management information about the local station to adjacent stations on the same IEEE 802 LAN. b) Receives network management information from adjacent stations on the same IEEE 802 LAN. c) Operates with all IEEE 802 access protocols and network media. d) Establishes a network management information schema and object definitions that are suitable for storing connection information about adjacent stations. e) Provides compatibility with the IETF PTOPO MIB (IETF RFC 2922 [B15]).

information databases. The protocol facilitates the identification of stations connected by IEEE 802 LANs/MANs, their points of interconnection, and access points for management protocols. This standard defines a protocol that: a) Advertises connectivity and management information about the local station to adjacent stations on the same IEEE 802 LAN. b) Receives network management information from adjacent stations on the same IEEE 802 LAN. c) Operates with all IEEE 802 access protocols and network media. d) Establishes a network management information schema and object definitions that are suitable for storing connection information about adjacent stations. e) Provides compatibility with the IETF PTOPO MIB (IETF RFC 2922 [B15]).

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

5.4 Purpose: An IETF Standard MIB (IETF RFC 2922 [B15]), as well as a number of vendor specific MIBs, have been created to describe a network's physical topology and associated systems within that topology. This standard specifies the necessary protocol and management elements to: a) Facilitate multi-vendor inter-operability and the use of standard management tools to discover and make available physical topology information for network management. b) Make it possible for network management to discover certain configuration inconsistencies or malfunctions that can result in impaired communication at higher layers. c) Provide information to assist network management in making resource changes and/or reconfigurations that correct configuration inconsistencies or malfunctions identified in b) above.

Old Purpose An IETF Standard MIB (IETF RFC 2922 [B15]), as well as a number of vendor specific MIBs, have been created to describe a network's physical topology and associated systems within that topology. However, there is no standard protocol for populating these MIBs or communicating this information among stations on the IEEE 802 LAN. This standard specifies the necessary protocol and management elements to: a) Facilitate multi-vendor inter-operability and the use of standard management tools to discover and make available physical topology information for network management. b) Make it possible for network management to discover certain configuration inconsistencies or malfunctions that can result in impaired communication at higher layers. c) Provide information to assist network management in making resource changes and/or reconfigurations that correct configuration inconsistencies or malfunctions identified in b) above.

5.5 Need for the Project: New destination addresses and explicit forwarding rules for LLDP frames are needed to accurately determine the topology over transparent forwarding devices such as those defined by 802.1ad and 802.1aj. Additionally, new and developing 802 standards, such as 802.3at, 802.1at and 802.1au, have the need to rapidly discover the boundary in the topology for which particular capabilities are operating. New information elements and a more rapid exchange of LLDP frames is necessary to support the timely discovery of this boundary. Users of this standard will be able to accurately exchange information on a greater set of 802.1 topologies and will experience a more rapid convergence of information.

5.6 Stakeholders for the Standard: This standard will be of interest to all current 802 LAN users as well as new use cases such as consumer electronics, telecom and data center networking

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: 07/16/2008

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 International Activities

a. Adoption

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

b. Joint Development

Is it the intent to develop this document jointly with another organization? No

c. Harmonization

Are you aware of another organization that may be interested in portions of this document in their standardization development efforts? No

8.1 Additional Explanatory Notes (Item Number and Explanation): The Purpose has been changed to remove the second sentence; this was removed as it was not necessary to include it in the Purpose in the final standard.
