

P802.1AB-amendment

Submitter Email: marina.gutierrez@tttech.com

Type of Project: Amendment to IEEE Standard 802.1AB-2016

PAR Request Date: XX-July-2017

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.1???

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
Amendment: YANG Data Model

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

Contact Information for Working Group Chair

Name: Glenn Parsons

Email Address: gparsons@ieee.org

Phone: 613-963-8141

Contact Information for Working Group Vice-Chair

Name: John Messenger

Email Address: jmessenger@advaoptical.com

Phone: +441904699309

3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

Contact Information for Sponsor Chair

Name: Paul Nikolich

Email Address: p.nikolich@ieee.org

Phone: 857.205.0050

Contact Information for Standards Representative

Name: James Gilb

Email Address: gilb@ieee.org

Phone: 858-229-4822

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 7/2018

4.3 Projected Completion Date for Submittal to RevCom: 10/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2.a. Scope of the complete standard: 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 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 [B9]).

5.2.b. Scope of the project: This amendment specifies a UML-based information model and a YANG data model that allows configuration and status reporting for bridges and bridge components with regards to topology discovery (as specified by this standard) with the capabilities currently specified in clauses 10.1 - 10.3 and 10.5. It further defines the relationship between the information and data model and models for the other management capabilities specified in this standard and for IEEE 802.1Q-2014.

5.3 Is the completion of this standard dependent upon the completion of another standard: Yes, IEEE 802.1Qcp and IEEE 802.1Qci.

5.4 Purpose: An IETF MIB (IETF RFC 2922 [B9]) and 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 re-configurations that correct configuration inconsistencies or malfunctions identified in b) above.

5.5 Need for the Project: YANG (RFC 6020) is a formalized data modeling language that can be used by NETCONF, a widely accepted protocol that is being used to simplify network configuration. Other SDOs (e.g. IETF and the Metro Ethernet Forum) have adopted YANG, and are developing a broad range of data models. Development of a YANG data model for manageable entities specified in IEEE Std 802.1Q will support this industry wide effort.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment.

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?: No

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): #2.1 While 'YANG' (developed by the IETF) appears to be an acronym its expansion 'Yet Another Next Generation' is not meaningful. It is vital that 'YANG' appear in the project title to inform potential participants and the target readership of the amendment.