
myProject™ - P802.1Q PAR Detail

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Type of Project: Revision to IEEE Standard

PAR Request Date: 22-Mar-2008

PAR Approval Date: 19-May-2008

PAR Expiration Date: 31-Dec-2012

Status: Revision to an Existing IEEE Standard, Std 802.1Q-2005

Project:

Root Project: 802.1Q-2005

1.1 Project Number: P802.1Q

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

1.4 Is this project in ballot now? No

2.1 Title: Standard for Local and Metropolitan Area Networks---Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks

Old Title: IEEE Standard for Local and Metropolitan Area Networks---Virtual Bridged Local Area Networks

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

Contact Information for Working Group Chair

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

Contact Information for Sponsor Chair

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: 12/2009

4.3 Projected Completion Date for Submittal to RevCom: 12/2010

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

5.2 Scope: This standard specifies Media Access Control (MAC) Bridges that interconnect individual Local Area Networks (LANs), each supporting the IEEE 802 MAC service using a different or identical media access control method, to provide

Old Scope: For the purpose of compatible interconnection of information technology equipment using the IEEE 802

Bridged Local Area Networks and Virtual LANs (VLANs).

MAC Service supported by interconnected IEEE 802 standard LANs using different or identical media

access control methods, this standard specifies the operation of MAC Bridges that support Virtual LANs (VLANs). To this end it

- a) Positions the support of VLANs within an architectural description of the MAC Sublayer;
- b) Defines the principles of operation of the VLAN-aware Bridge in terms of the support and preservation of the MAC Service, and the maintenance of Quality of Service;
- c) Specifies an Enhanced Internal Sublayer Service provided to the Media Access Independent functions that provide frame relay in a VLAN-aware Bridge;
- d) Establishes the principles and a model of Virtual Bridged Local Area Network operation;
- e) Identifies the functions to be performed by VLAN-aware Bridges, and provides an architectural model of the operation of a Bridge in terms of Processes and Entities that provide those functions;
- f) Specifies a frame format that allows a VLAN Identifier (VID) and priority information to be carried by VLAN tagged user data frames;
- g) Specifies the rules that govern the addition or removal of VLAN tags to and from user data frames;
- h) Specifies the rules that govern the ability to carry user data in either Canonical format or Noncanonical format in VLAN-tagged frames;
- i) Establishes the requirements for automatic configuration of VLAN topology;
- j) Establishes the requirements for VLAN-aware Bridge Management in a Virtual Bridged Local Area Network, identifying managed objects and defining management operations;
- k) Defines the operation of the Multiple Spanning Tree algorithm and protocol (MSTP);
- l) Describes the protocols and procedures necessary to support interoperation between MST and SST Bridges in the same Virtual Bridged Local Area Networks;
- m) Specifies the requirements to be satisfied by equipment claiming conformance to this standard.

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

5.4 Purpose: MAC Bridges, as specified by this standard, allow the compatible interconnection of information technology equipment attached to separate individual LANs. **Old Purpose** The standard provides common interoperable solutions to the establishment of Virtual LAN Bridged infrastructures. Revision is needed in order to deal with editorial and technical corrections, to remove obsolete material, and also to reflect changes necessary as a result of enhancements to IEEE Std 802.1D - Standard for Local and Metropolitan Area Networks: Media Access Control (MAC) Bridges, upon which IEEE Std 802.1Q depends.

5.5 Need for the Project: This revision project is needed in order to incorporate approved amendments and to ensure that consistency is maintained in the consolidated text. It is also necessary to merge the MAC bridging technology defined in IEEE Std 802.1D with the VLAN Bridging technology defined in IEEE Std 802.1Q in order to create a single standard for IEEE 802 Bridging technologies. This will have benefits both for the users of these standards and also in terms of the long-term maintainability of the resultant standard.

5.6 Stakeholders for the Standard: Manufacturers, distributors, vendors, and users of Virtual LAN bridging equipment and components thereof.

Intellectual Property

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

If yes, state date: 03/17/2008

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

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Person Name:

Contact Person Phone:

Contact Person Email:

b. Joint Development

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

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Person Name:

Contact Person Phone:

Contact Person Email:

c. Harmonization

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

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Person Name:

Contact Person Phone:

Contact Person Email:

8.1 Additional Explanatory Notes: (Item Number and Explanation) Item 5.2: The revised Scope is significantly shorter than the old Scope; the intent is that the existing bulleted list will be retained within the Scope subclause of the standard, and will be

extended appropriately as amendments are incorporated into the standard in the future, but that the Scope as far as the PAR is concerned will be just the introductory paragraph that gives the overall scope of the standard.