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| Draft PAR Confirmation Number: xxxxxxxxxxxx | |
| Submittal Email: tony@jeffree.co.uk | |
| Type of Project: PAR for a revision to existing Standard 802.1Q-2005 | |
| 1.1 Project Number: P802.1Q | |
| 1.2 Type of Document: Standard for | |
| 1.3 Life Cycle: Full | |
| 1.4 Is this project in ballot now? No | |
| 1.5 Is the balloting group aware of the PAR modification? | |
| 2.1 Title of Standard: 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 Name of Working Group: Higher Layer LAN Protocols Working Group(C/LM/WG802.1) | |
| Contact information for Working Group Chair Anthony Jeffree 11a Poplar Grove Sale, Cheshire M33 3AX GB tony@jeffree.co.uk | |
| Working Group Vice Chair: Paul Congdon 9489 Treelake Road Granite Bay, CA 95746 US, Email: paul.congdon@hp.com | |
| 3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks(C/LM) | |
| Contact information for Sponsor Chair: Paul Nikolich 18 Bishops Lane Lynnfield, MA 01940 US p.nikolich@ieee.org | |
| Contact information for Standards Representative: | |
| 4.1 Type of Ballot: Individual | |
| 4.2 Expected Date of Submission for Initial Sponsor Ballot: 2009-12 | |
| 4.3 Projected Completion Date for Submittal to RevCom: 2010-12 | |
| 5.1 Approximate number of people expected to work on this project: 50 | |
| | Old Scope: For the purpose of compatible interconnection of information technology equipment using the IEEE 802 MAC Service supported by interconnected IEEE 802 standard LANs using different or |

5.2 Scope of Proposed Standard: 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 Bridged Local Area Networks and Virtual LANs (VLANs).

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 is dependent upon the completion of another standard: No

If yes, please explain:

5.4 Purpose of Proposed Standard: **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/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board?

Yes

If yes, state date: 2008-03-17

If no, please explain:

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

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

and answer the following: Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

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

If Yes, the following questions must be answered:

Technical Committee Name and Number:

Other Organization Contact Information:

Contact person:

Contact Email address:

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

If yes, please explain:

7.4 Additional Explanatory Notes: (Item Number and Explanation)

Contact the [NesCom Administrator](#)