

P802.1AX

Submitter Email: tony@jeffree.co.uk

Type of Project: Modify Existing Approved PAR

PAR Request Date: 17-Sep-2013

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, Modification to a Previously Approved PAR for the Revision of a Standard

Root PAR: P802.1AX **Approved on:** 15-May-2012

1.1 Project Number: P802.1AX

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and metropolitan area networks--Link Aggregation

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

Contact Information for Working Group Chair

Name: Anthony Jeffree

Email Address: tony@jeffree.co.uk

Phone: +44-161-973-4278

Contact Information for Working Group Vice-Chair

Name: Glenn Parsons

Email Address: gparsons@ieee.org

Phone: 613-667-1569

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: 11/2014

4.3 Projected Completion Date for Submittal to RevCom: 10/2015

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

5.2 Scope: Link Aggregation provides protocols, procedures, and managed objects that allow:

1. One or more parallel instances of full duplex point-to-point links to be aggregated together to form a Link Aggregation Group, such that a Medium Access Control (MAC) Client can treat the Link Aggregation Group as if it were a single link.

2. A resilient interconnect using multiple links among one or more nodes in a network and one or more nodes in another, separately administered, network, along with a means to ensure that frames belonging to any given service will use the same physical path in both directions between the two networks.

This standard defines the MAC independent Link Aggregation capability, and general information relevant to specific MAC types that support Link Aggregation. The capabilities defined are compatible

Changes in scope: Link Aggregation provides protocols, procedures, and managed objects that allow: 1. One or more parallel instances of full duplex point-to-point links, ~~operating at the same data rate,~~ to be aggregated together to form a Link Aggregation Group, such that a Medium Access Control (MAC) Client can treat the Link Aggregation Group as if it were a single link. 2. A resilient interconnect using multiple links among one or more nodes in a network and one or more nodes in another, separately administered, network, along with a means to ensure that frames belonging to any given service will use the same physical path in both directions between the two networks. This standard defines the MAC independent Link Aggregation capability, and general information relevant to specific MAC types that support Link Aggregation. The capabilities defined are compatible with previous versions of this standard.

with previous versions of this standard.

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

5.4 Purpose: Link Aggregation allows the establishment of full duplex point-to-point links that have a higher aggregate bandwidth than the individual links that form the aggregation, and the use of multiple systems at each end of the aggregation. This allows improved utilization of available links in bridged LAN environments, along with improved resilience in the face of failure of individual links or systems. In applications connecting separately administered networks, the networks are isolated from each other's fault recovery events.

5.5 Need for the Project: There is a need to enhance Link Aggregation, its protocols, procedures and managed objects, to provide a resilient interconnect using multiple links among one or more nodes in a network and one or more nodes in another, separately administered, network. Furthermore there is a need to correct some known problems identified in the maintenance process. The scope of these changes is most appropriately handled as a revision.

5.6 Stakeholders for the Standard: The stakeholders for this standard are the semiconductor manufacturers, system product manufacturers (e.g., switch and Network Interface Controllers), network providers (e.g. installers, support, enterprises), bandwidth providers (e.g., carriers), and users of Link Aggregation as currently defined in IEEE Std 802.1AX-2008.

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): This modification to the Scope is intended to remove the current scope restriction that the links aggregated by the protocol need to be of the same data rate. The actual changes to the body of the standard as a result of this relaxation are in fact very minor, as the existing standard has no mechanism for enforcing that the data rates are the same.