

P802.1AX

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Type of Project: Revision to IEEE Standard 802.1AX-2008

PAR Request Date: 18-Jan-2012

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for a Revision to an existing IEEE Standard

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

Changes in title: ~~IEEE~~ 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

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

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None

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: 45

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, operating at the same data rate, to be aggregated together to form a Link Aggregation Group, such that a 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.

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

Changes in scope: Link Aggregation ~~allows~~ provides ~~one~~ 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 MAC Client can treat the Link Aggregation Group as if it were a single link.

2. ~~To A this resilient end, interconnect it using specifies~~ multiple ~~the links establishment among of one data or terminal more equipment nodes (DTE) in a DTE network logical and links one or more nodes in another, consisting separately of administered, A network, parallel along instances with of a full means duplex to point~~ ensure that frames belonging to ~~point links any operating given at service will use the same data physical rate 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.~~

Changes in purpose: Link Aggregation allows the establishment of full duplex point-to-point links that have a

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.

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):