P802.3bt

This PAR is valid until 31-Dec-2017. The original PAR was approved on 11-Dec-2013, modified on 12-May-2016.

PAR Extension Request Date: 24-Apr-2017
Extension Request Submitter Email: david_law@ieee.org
Number of Previous Extensions Requested: 0
1. Number of years that the extension is being requested: 2
2. Why an Extension is Required (include actions to complete): An extension is required to complete sponsor ballot. The project started as a set of changes to the existing IEEE Std 802.3-2015 Clause 33 DTE Power via MDI and work was slowed as we were careful not to break existing implementations. The split to a new clause has greatly eased that concern. The group has had 17 significant drafts and has resolved over 4,500 comments in an effort to cover all the technical issues required to expand to 4-pair power. The work left to complete is the Sponsor Ballot phase of the project.

3.1. What date did you begin writing the first draft: 20-Oct-2014
3.2. How many people are actively working on the project: 25
3.3. How many times a year does the working group meet?
  In person: 6
  Via teleconference: 0
3.4. How many times a year is a draft circulated to the working group: 6
3.5. What percentage of the Draft is stable: 90%
3.6. How many significant work revisions has the Draft been through: 17
4. When will/did initial sponsor balloting begin: 01-Jul-2017
When do you expect to submit the proposed standard to RevCom: 01-May-2018
Has this document already been adopted by another source? (if so please identify): No

For an extension request, the information on the original PAR below is not open to modification.

Submitter Email: david_law@ieee.org
Type of Project: Modify Existing Approved PAR
PAR Request Date: 18-Mar-2016
PAR Approval Date: 12-May-2016
PAR Expiration Date: 31-Dec-2017
Status: Modification to a Previously Approved PAR for an Amendment
Root PAR: P802.3bt **Approved on:** 11-Dec-2013

1.1 Project Number: P802.3bt
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Ethernet Amendment: Physical Layer and Management Parameters for DTE Power via MDI over 4-Pair

3.1 Working Group: Ethernet Working Group (C/LM/WG802.3)
Contact Information for Working Group Chair
  Name: David Law
  Email Address: david_law@ieee.org
  Phone: +44 1631 563729
Contact Information for Working Group Vice-Chair
  Name: Adam Healey
  Email Address: adam.healey@broadcom.com
  Phone: 6107123508

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: 8572050050
Contact Information for Standards Representative
  Name: James Gilb
  Email Address: gilb@ieee.org

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2017
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2017

5.1 Approximate number of people expected to be actively involved in the development of this project: 30
5.2.a. Scope of the complete standard: This standard defines Ethernet local area, access and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) provide an architectural and optional implementation interface to selected Physical Layer entities (PHY). The Physical Layer encodes frames for transmission and decodes received frames with the modulation specified for the speed of operation,
transmission medium and supported link length. Other specified capabilities include: control and management protocols, and the provision of power over selected twisted pair PHY types.

5.2.b. Scope of the project: The scope of this project is to augment the capabilities of the IEEE Std 802.3 standard with 4-pair power and associated power management information. The project will augment the methodology for the provision of power via balanced cabling to connected Data Terminal Equipment with 802.3 interfaces. Optional augmented power limit will be made available for certain structured cabling systems. Improvements introduced for 4-pair systems, excluding raising the power limit, are optionally enabled for 2-pair systems. Compatibility with existing equipment will be maintained.

Changes in scope of the project: The scope of this project is to augment the capabilities of the IEEE Std 802.3 standard with 4-pair power and associated power management information. The project will augment the methodology for the provision of power via balanced cabling to connected Data Terminal Equipment with 802.3 interfaces. Optional augmented power limit will be made available for certain structured cabling systems. Improvements introduced for 4-pair systems, excluding raising the power limit, are optionally enabled for 2-pair systems. Compatibility with existing equipment will be maintained.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: This document will not include a purpose clause.
5.5 Need for the Project: Since the publication of IEEE Std 802.3at-2009, significant market demand has emerged for more efficient power delivery and for applications with power levels greater than those defined in the standard. Example applications include thin clients, multi-radio wireless access points, pan / tilt / zoom cameras, digital signage, building automation, industrial sensors / actuators etc.

5.6 Stakeholders for the Standard: Ethernet component providers (e.g., cabling and integrated circuit), system product providers (e.g., switch and end stations), network providers (e.g., installers, network support) and network implementers (e.g., enterprise, building automation and industrial automation).

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 4.2 and 4.3: Update of dates based on current project plan.
Item 5.2.b: During the development of this project new features are being defined for 4-pair operation. This modification will permit some of these features to be defined for new 2-pair operation as well.