

IEEE 802.3 NGBASE-T Study Group

25th September 2012, Geneva, Switzerland

Filling in the PAR

Bennett, Mike – LBNL

Booth, Brad – Dell

Chalupsky, David – Intel

Wael William Diab – Broadcom

Supporters welcome

Overview

- A Project Authorization Request (PAR) must be completed by this Study Group before it can progress to a Task Force
- The intent of this presentation is to get the discussion going with a goal of getting some or all of the PAR responses approved by the Study Group at this or the next meeting.
 - Wording in the responses is a first pass
- Supporters / contributors / feedback welcome

Major PAR form questions

The PAR form is completed on-line in the myProject system. Many of the PAR questions are proforma and are automatically complete by selecting a IEEE 802.3 amendment project. These items include sponsor and the Working Group officers.

This slideset therefore provides the nine major items from the PAR form to assist in consensus building leading up to approving a completed draft PAR form.

PAR item 2.1 – Project title

Project title: Standard for Ethernet Amendment:

Physical Layer and Management Parameters for 40 Gb/s Operation,
Type 40GBASE-T

Help text: The title of the base standard is uneditable. Please enter the amendment title in the text box. The title should be sufficiently unambiguous, understandable by a NesCom member not from the society that submitted the PAR. All acronyms shall be spelled out in the title.

PAR item 4.2 and 4.3 Project dates

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:

September 2015

Help text: Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the invitation pool prior to Sponsor Ballot.

4.3 Projected Completion Date for Submittal to RevCom:

March 2016

Help text: Enter the date the draft standard is planned to be submitted to RevCom for processing (not to exceed four years from the date of PAR submission). **It is suggested to allow at least six months after Initial Sponsor Ballot for the ballot process.** Cutoff dates for submitting draft standards to RevCom are generally in February, May, August, and October. Check the appropriate calendars for the specific dates as the draft matures. Use a best guess estimate for the PAR.

PAR item 5.2A – Standard scope

5.2A 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.

Help text: If this Amendment will change the scope statement of the complete document (base + Amendment), it can be edited and should be explained in the Additional Explanatory Notes field at the end of the PAR form. If this Amendment will not change the scope statement of the complete document the pre-populated text should be left as is.

PAR item 5.2B – Project scope

5.2B Scope of the Project:

Specify a Physical Layer (PHY) for operation at 40 Gb/s on standard copper cabling, using existing Media Access Controller, and with extensions to the appropriate physical layer management parameters.

Help text: State what the Amendment is changing or adding.

PAR item 5.3 – Project contingency

5.3 Is the completion of this standard contingent upon the completion of another standard (Yes or No)? If **yes**, please explain below:

No

Help text: Your explanation should include how the standard is dependent upon the completion of another standard. Also, if applicable, why a PAR request is being submitted if the standard currently under development is not yet complete. The title and number of the standard which this project is contingent upon shall be included in the explanation.

PAR item 5.4 – Project purpose

5.4 Will the completed document (base + amendment) contain a purpose clause:

- Yes No

Note: IEEE Std 802.3 does not contain a Purpose Clause.

PAR item 5.5 – Project need

5.5 Need for the Project:

With continued growth of server capabilities, network and Internet traffic, datacenters continue to require higher data rates for equipment interconnections. The IEEE 802.3 BASE-T family of technologies allows for seamless upgrade between older rates and newer rates. Currently, IEEE Std 802.3 does not support 40 Gb/s BASE-T operation . There is a market need for a low cost 40 Gb/s BASE-T solution with auto-negotiation capability for datacenter applications.

Help text: The need for the project details the specific problem that the standard will resolve and the benefit that users will gain by the publication of the standard. The need statement should be brief, no longer than a few sentences.

PAR item 5.6 – Stakeholders

5.6 Stakeholders for the Standard:

Stakeholders identified to date includes but are not limited to: users and producers of systems and components for servers, network storage, networking systems and data centers.

Help text: The stakeholders (e.g., telecom, medical, environmental) for the standard consist of any parties that have an interest in or may be impacted by the development of the standard.

Study Group Motion

- Move to adopt the responses to the PAR as revised in diab_01a_0912.pdf
- M: W. Diab
- S: M. Bennett
- Tech ($\geq 75\%$)
- All:
 - Y: 34 N: 0 A: 1
- Motion Passes