EPoC
Proposal for Project Objectives

IEEE 802.3 EPOC Study Group
Minneapolis – May 2012

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Objective 1 (adopted)

- Specify a PHY to support subscriber access networks capable of supporting burst mode and continuous mode operation using the EPON protocol and operating on point-to-multipoint RF distribution plants comprised of either amplified or passive coaxial media.

Motion to modify objective 1 to read as shown above:

moved by Jorge Salinger; Second By Ed Boyd

Yes: 36 No: 1 Abstain: 2

OBJECTIVE 2 (previously adopted)

- Maintain compatibility with 1G-EPON and 10G-EPON, as currently defined in IEEE Std. 802.3 with minimal augmentation to MPCP and/or OAM if needed to support the new PHY.

OBJECTIVE 3 (adopted)

- Define required plant configurations and conditions within an overall coaxial network operating model.

- Move to accept above as objective 3.
- Moved by Kevin Noll; John Ulm

- Yes: 38
- No: 0
- Abstain: 0

OBJECTIVE 4 (adopted)

- Provide a physical layer specification that is capable of:
  - A baseline data rate of 1 Gb/s at the MAC/PLS service interface when transmitting in 120 MHz, or less, of assigned spectrum under defined baseline plant conditions;
  - A data rate lower than the baseline data rate when transmitting in less than 120 MHz of assigned spectrum or under poorer than defined plant conditions;
  - A data rate higher than the 1Gb/s baseline data rate and up to 10 Gb/s when transmitting in assigned spectrum and in channel conditions that permit.

- Move to accept above as objective 4.
- Moved by Matt Schmitt; Second by Kevin Noll

- Yes: 36
- No: 0
- Abstain: 2

OBJECTIVE 5 (previously adopted)

- PHY to support symmetric and asymmetric data rate operation.

OBJECTIVE 6 (previously adopted)

- PHY to support symmetric and asymmetric spectrum assignment for bidirectional transmission.

OBJECTIVE 7 (previously adopted)

- PHY to support independent configuration of upstream and downstream transmission operating parameters.

OBJECTIVE 8 (previously adopted)

- PHY to operate in the cable spectrum assigned for its operation without causing harmful interference to any signals or services carried in the remainder of the cable spectrum.

OBJECTIVE 9 (adopted)

- PHY to have a downstream frame error ratio better than 10^-6 at the MAC/PLS service interface.
- PHY to have an upstream frame error ratio better than 5x10^-5 at the MAC/PLS service interface.

Straw poll

- As an Option, in minimally impaired upstream,
  Upstream Frame Error Rate ≤ 10-6
  OR
  Upstream Bit Error Rate ≤ 10-8
  with Goal of Upstream Bit Error Rate ≤ 10-10

- Remove the text as above from objective 9.
  - YES: 28
  - NO: 0
  - Abstain: 1

Straw Poll 2

- Downstream Frame Error Rate ≤ 10-6
  OR Downstream Bit Error Rate ≤ 10-8
  with Goal of Downstream Bit Error Rate ≤ 10-10
- Upstream Frame Error Rate ≤ 10-4
  OR Upstream Bit Error Rate ≤ 10-6

- Remove text in italics above.
  - Yes: 30
  - No: 3
  - Abstain: 1

Straw Poll 3

- Remove completely objective 9.

- Yes: 2
- No: 22
- Abstain: 2

Motion 1

- Moved by Tom Kolze; second by Victor Hou
- Accept objective 9 as :
- PHY to have a downstream frame error ratio better than 10^-6 at the MAC/PLS service interface.

- Yes: 25
- No: 4
- Abstain: 8

Motion 2

- Moved by Tom Kolze; Rich Prodan
- Amend objective 9 to add:
- PHY to have an upstream frame error ratio better than 5x10^-5 at the MAC/PLS service interface.

- Yes: 33
- No: 0
- Abstain: 7