

Closing Report

IEEE P802.3ca 100G-EPON

Curtis Knittle
CableLabs

Macau, March 14-16, 2016

Agenda

NG-EPON

- Motions and Straw Polls
- Weekly meetings
- Work plans

Bi-Weekly Meetings

- ❑ Still occurring every other week

- ❑ Request for agenda items should be made by Monday for a Thursday meeting
 - If no requests by COB Tuesday AOE, meeting is cancelled

- ❑ Work areas need more detail
 - MPCP: Kramer
 - RS: Remein
 - PCS: Hajduczenia
 - PMD: Effenberger

 - Could each work area lead generate:
 - a list of area-specific questions or decisions to be made?
 - What contributions are needed in order to make these decisions?
 - Dependencies on decisions
- ❑ Jorge Salinger is the official taskmaster

- ❑ This will lead to a more enlightenment and a more accurate timeline

Questions (Carried over from Atlanta Mtg)

- ❑ What information is needed to select wavelengths?
 - coexistence with 1G-EPON? (Ans: No)
 - Coexistence with GPON?
 - coexistence with RFoG?
- ❑ Is the group absolutely set on 4 wavelengths @ 25 Gb/s?
 - Ans: seems to be the only approach discussed thus far.
- ❑ Generational approach? (Ans: Yes)
 - 1st gen = 1 wavelength pair, 25 Gb/s:
 - Motion passed: All 25G ONUs on same wavelength pair
 - 2nd gen = 2 wavelength pairs, 50 Gb/s, 25 Gb/s ONUs supported:
 - Motion passed: all 50G ONUs on same two wavelength pairs;
 - 3rd gen = 4 lambda, 100 Gb/s, 50 Gb/s, 25 Gb/s ONUs supported
 - Do we need to formalize .3ca generations? (i.e. .3ca gen1, .3ca gen2, etc.?)
- ❑ Channel bonding, i.e., ability to deliver more than 25 Gbps per ONU
 - Ans: Motion passed: Downstream bonding per kramer_3ca_2a_0316.pdf
 - Ans: Upstream bonding needs more study, but moving along well.
- ❑ Support for 25/50/100 on a single OLT port (multiple generations of .3ca coexisting on a single port)
 - Ans: Yes, although do we need to state this explicitly?

Questions

- ❑ Ability for multilane ONU (with 2, 3, or 4 lanes) to shed some lane and operate on a subset of supported lanes (say, ONU with 4 lanes operates only on 2, effectively; this can be used for power saving, for example, or when one lane is busy)
 - Yes, supported implicitly by bonding proposed in [kramer_3ca_2a_0316.pdf](#)
- ❑ Ability to connect 25G ONUs on multiple channels (e.g., some 25G ONUs connect on channel 1, some on channel 2, etc. – this would allow OLT to support 4 independent PONs, in a manner similar to NG-PON2 today – each channel becomes an independent PON)
 - No: motion passed that all 25G ONUs use same wavelength pair
- ❑ Support for tunable optics (additional tuning protocol will be needed, together with transceiver specification, tuning range, etc.)
 - Still open
- ❑ Ability to disable FEC on per OLT port basis (affecting all ONUs)
 - Still open
- ❑ Ability to disable FEC on per ONU basis (affecting just selected ONU)
 - Still open

Straw Poll #1

- All 25G ONUs and 25G OLTs use the same wavelength pair for downstream and upstream transmission.

- Agree: 17
- Disagree: 1
- No opinion: 3

Motion #3

All 25G ONUs and 25G OLTs shall use the same wavelength pair.

(Technical \geq 75%)

Move: Jorge Salinger

Second: Marek Hajduczenia

For: 17

Against: 0

Abstain: 4

Motion passes

Straw Poll #2

All 50G ONUs and 50G OLTs shall use the same two wavelength pairs, one of which is the same wavelength pair as used by 25G ONUs and 25G OLTs.

For: 10

Against: 4

Abstain: 7

Motion #4

All 50G ONUs and 50G OLTs shall use the same two wavelength pairs.

(Technical \geq 75%)

Move: Frank Effenberger

Second: Glen Kramer

For: 22

Against: 0

Abstain: 3

Motion passes

Motion #5

All 100G ONUs and 100G OLTs shall use the same four wavelength pairs, two of which are the same wavelength pairs as used by 50G ONUs and 50G OLTs.

(Technical \geq 75%)

Move: Jorge Salinger

Second: Duane Remein

For: 23

Against: 0

Abstain: 3

Motion Passes

Motion #6

Move to adopt the proposal for downstream channel bonding presented in kramer_3ca_2a_0316.pdf as baseline.

(Technical \geq 75%)

Move: Jorge Salinger

Second: Alan Brown

For: 16

Against: 0

Abstain: 8

Motion Passes

Straw Poll #3

Adopt the proposal for upstream channel bonding presented in [kramer_3ca_2a_0316.pdf](#) as baseline.

For: 8

Against: 4

Abstain: 13

What is the importance of having a common PMD with a comparable ITU PON System?

Important: 10

Not important: 6

No opinion: 9

Straw Poll #5

I would support an upstream wavelength range in O-band with 20nm width for the 25G single channel system

Agree: 13

Disagree: 8

No opinion: 4

I prefer to have all wavelengths allocated in O-band.

Agree: 14

Disagree: 6

No opinion: 3

I prefer to have the 25G wavelength pair allocated in O-band.

Agree: 13

Disagree: 4

No opinion: 6

Straw Poll #8

I prefer to use NRZ transmission for 25G per channel operation.

Agree: 15

Disagree: 2

No opinion: 6

Motion #7

Move to adopt NRZ transmission for each 25G channel.

(Technical \geq 75%)

Move: Jorge Salinger

Second: Duane Remein

For:

Against:

Abstain:

Motion Tabled

Motion #8

Move to table Motion #7 from the Macau task force meeting until end of the May task force meeting.

(Procedural \geq 50%)

Move: Glen Kramer

Second: Marek Hajduczenia

For: 20

Against: 0

Abstain: 3

Motion passes

Thank you!