

New Ethernet Applications Ad Hoc Teleconference
 “Next-Gen MMF PMDs”

Friday February 10, 2017 11am EST

Hosted by Robert Lingle, Jr.

John Kamino volunteered to serve as recording secretary for the meeting.

Slide set posted on:

http://www.ieee802.org/3/ad_hoc/ngrates/public/calls/17_0210/index.html
 lingle_nea_02_170210.pdf

17 attendees participated in the 2/10/17 call

Name	Affiliation	1/27/2017	2/10/2017
Qing Xu	Belden	x	x
Derek Cassidy	BT	x	
Gary Nichol	Cisco	x	x
Paul Kolesar	CommScope	x	
Sunny Yang	CommScope	x	
John Abbott	Corning	x	x
Steve Swanson	Corning		x
Bruce Chow	Corning	x	
David Piehler	Dell	x	x
Steffen Koehler	Finisar	x	
Vipul Bhatt	Finisar	x	
John Petrilla	Foxconn	x	
John D'Ambrosia	Futurewei	x	x
Frank Chang	InPhi	x	x
Adrian Young	Leviton	x	x
Dale Murray	LightCounting	x	x
David Lewis	Lumentum	x	
Piers Dawe	Mellanox	x	x
Paul Vanderlaan	Nexans	x	
Rakesh Sambaraju	Nexans	x	x
Robert Lingle	OFS	x	x
John Kamino	OFS	x	x
Mabud Choudhury	OFS	x	x
Jose Castro	Panduit	x	x
Rick Pimpinella	Panduit	x	x
Brett Lane	Panduit		x
Adrian Amezcua	Prysmian	x	
Mike Dudek	Qlogic/Cavium	x	x
Ken Jackson	Sumitomo	x	
total		26	17

Robert Lingle reviewed lingle_nea_01_170210.pdf.

Guidelines for IEEE-SA Meetings
Participation in IEEE 802 Meetings
Agenda
No questions/comments

Robert Lingle reviewed 1/27/17 meeting minutes.

2 names and affiliations added
No other corrections/additions

Adrian Young will have presentation at the next meeting with data on 40G vs. 4x10G breakout.

Robert encouraged participation from all companies that can provide hard data to support the CFI.

Reviewed draft 0.1 of CFI slide deck.

1. Title Slide "400 Gb/s Ethernet over Parallel MMF and 200 Gb/s Ethernet over Duplex MMF Call For Interest Consensus Presentation".

- J. D'Ambrosia stressed the importance of keeping the scope broad, and keeping as many PHY options open as possible to build support for the CFI. It will be up to the study group and task force (if created) to select the best option(s). He also emphasized the importance of legacy support for broad market potential.
- S. Swanson, R. Pimpinella, M. Dudek, Q. Xu and others discussed the different options for 200 and 400G.
- A. Young suggested wordsmithing the title to approximately: *Next Generation 400 and 200 Gb/s Ethernet PHYs over Fewer Multimode Fiber Pairs*

2. Slide 4 "CFI Objectives"

- Need to change objectives to align with changes in title

3. Slide 5 "Overview : Motivation"

- J. D'Ambrosia – if new title is reduced fiber count – this is the key selling point, so re-write motivation around that. Data on 100g SR10 vs SR4 would be a good slide. Could also include swdm4 and bidi market.
- Conclusion: *Leverage emerging technologies to develop cost-optimized lower fiber count solutions over installed base as well as greenfield MMF cabling for 200 and 400 Gb/s*

- **Section on Market Need**
- Discuss the historical lowest cost paradigm for MMF – still persists based on what we can see right now.
- Point to installed base as well as new MMF that is being installed (OM3/4/5)
- 40 and 100G parallel and duplex MMF PMDs used in router-switch, switch-switch, and breakout applications
- Show recent history of 100G SR4 usage here
- Need end-user input for this section. A China DC company will contribute a slide stating how it will use 400GBASE-SR4.n. Can we get other end-user input?
- 400G parallel and 200G duplex need to be represented

Section on “Technical Feasibility”

- Slide on 50 Gb/s PAM-4 over MMF
- Slide on OM5 MMF, optimized for multiple wavelengths
- Slide on 4-wavelengths on MMF
- Slide on 2 wavelengths on MMF

Section “Why Now?”

- Show LightCounting recent history of 100G SR4 deployment to illustrate that next-gen MMF PMDs are needed as soon as new switch speeds are commercial. We expect the same for 400G
- Move material comparing next-gen 400G solution to SR16 to Market Needs section

These basic changes will be reflected in a new version of CFI deck.

Meeting adjourned 12:55pm