

## Inaugural Meeting: 12/5 NGMMF Study Group Ad Hoc Teleconference Meeting Notes

Tuesday, December 5, 2017

Hosted by Robert Lingle, Jr., Acting Chair NGMMF SG

Meeting started at 11:03 am ET

Agenda and Kick-Off presentation posted on:

[http://www.ieee802.org/3/NGMMF/public/adhoc/lingle\\_ngmmf\\_01a\\_120517.pdf](http://www.ieee802.org/3/NGMMF/public/adhoc/lingle_ngmmf_01a_120517.pdf)

Review of Criteria for Standards Development presentation posted on:

[http://www.ieee802.org/3/NGMMF/public/adhoc/zimmerman\\_ngmmf\\_01a\\_120517.pdf](http://www.ieee802.org/3/NGMMF/public/adhoc/zimmerman_ngmmf_01a_120517.pdf)

28 attendees participated in the 12/05/17 call. If you participated in the meeting but are not listed or if you attended and company affiliation is incorrect, please email Mabud Choudhury, [mchoudhury@ofsoptics.com](mailto:mchoudhury@ofsoptics.com) with a correction.

	<b>Name</b>	<b>Company</b>
1	Adrian Amezcua	Prysmian
2	Adrian Young	Leviton Mfg.
3	Brett Lane	Panduit
4	Dale Murray	LightCounting
5	David Law	HPE
6	David Piehler	Dell EMC
7	Earl Parsons	CommScope
8	Frank Chang	Inphi
9	George Zimmerman	CME/CommScope
10	John Abbott	Corning Inc.
11	John Johnson	Broadcom Ltd.
12	John Kamino	OFS
13	Jonathan Ingham	FIT
14	Jonathan King	Finisar
15	Kenneth Jackson	Sumitomo
16	Mabud Choudhury	OFS
17	Martin White	Cavium
18	Paul Kolesar	CommScope
19	Paul Vanderlaan	Berk-Tek
20	Peter Pepeljugoski	IBM
21	Peter Pondillo	Corning Inc.
22	Piers Dawe	Mellanox
23	Rakesh Sambaraju	Nexans
24	Rick Pimpinella	Panduit
25	Robert Lingle	OFS
26	Steffen Koehler	Finisar
27	Steve Swanson	Corning Inc.
28	Sunny Xu	CommScope

3 Teleconference meetings scheduled (including 12/5/17 meeting) prior to Geneva January Interim Meeting. Due to conflicts with non-IEEE meetings, 3 different days of week had to be picked. Announced on reflector:

1. Tuesday, 12/05/17, 11am – 1pm Eastern
2. Monday, 12/18/17, 11am – 1pm Eastern
3. Thursday, 01/11/18, 11am – 1pm Eastern

Please direct request for calendar invitation for meetings to [rlingle@ofsoptics.com](mailto:rlingle@ofsoptics.com).

For Attendance, need to state Employer and Affiliation. David Law covered employer/affiliation for contract work/consulting: depending on how funded, if asked to attend meeting, if attending on own. There is FAQ on employer/affiliation and can contact David for clarification.

Agenda reviewed and accepted.

Participation in IEEE 802 Meetings and Guidelines for IEEE-SA Meetings, including Patent Policy, reviewed.

David Law will cover “Presentation on Cost Discussions to IEEE 802.3 Working Group” during 12/18/17 meeting. Important as dealing with relative costs as part of Economic Feasibility

Slide 7 from Kick-Off presentation:

IEEE 802.3 NGMMF SG Information covered.

Home Page: <http://www.ieee802.org/3/NGMMF/index.html>

Reflector: <http://www.ieee802.org/3/NGMMF/reflector.html>

Robert Lingle, Jr. is Acting Chair for SG. Robert’s goals are to ensure IEEE-SA, 802, 802.3 policies and procedures are followed, to insure that all positions get a fair hearing, and to move the project towards completion in timely fashion driving towards 75% consensus.

Slide 8:

Scope discussed per SG chartering motion.

**Action Item:** The specific standards for MMF will be updated for posted version of presentation.

Slide 9:

Table shows possible PMDs that are in scope in red. Goal is to draw out contributions for PMDs for which there is serious interest at the beginning of the process, during teleconferences before Geneva, with contributions at Geneva Interim.

Question was raised about labeling such as SR2.1 and SR4.1 instead of SR2 and SR4

**Action Item:** Robert will update table such that single-wavelength options are labeled SR.

Slide 10:

We are in Study Group Phase generating PAR, 5C/CSD and Objectives. Per Stephen Covey’s “Begin with End in Mind” goal is to identify what we need to do to progress from Study Group to Task Force in March. There have been Study Groups with 1 meeting to generate required PAR, CSD and Objectives to request to move Task Force at the following plenary. The key is to build consensus. The need to move rapidly by March was discussed. View that market for and standardization of 400G-SR4 requires aggressive timeline or that MSA/proprietary 400G will be developed instead. There was discussion about

400G vs. 200G. All agree there is more consensus for 400G than 200G objectives. Goal would be to work through issues by March.

Focus needs to be to have solid PAR and CSD; can be less specific for objectives to the degree that precedent allows. Need to submit documents to WG 30 days before March.

Slide 11:

There was discussion on Boilerplate Objectives. It would be useful to have a short presentation that covers why boilerplate objectives are relevant.

Support for OTN objective needs to be clarified as MMF objective.

Slide 12:

Referenced MMF objectives from previous standards/projects as template for generating NGMMF objectives. One possible objective could be for new PMDs to work with existing PCS/PMA. Possible objective defining link segment for MMF and appropriate portion of PMD/PCS/PMA/PHY.

There was discussion about whether the the number of pairs or wavelengths should be included in the objective?

George Zimmerman covered "Review of the 5 Criteria" presentation.

Important to understand that there are different levels of audience, with PAR having the highest level of audience (SG, WG, EC and SA Board), CSD having the next level of audience (SG, WG and EC), and Objectives having the least levels of audience (SG and WG).

Slide 8, Managed Objects:

Fairly standard language is in place that can be reused.

Slide 9, Coexistence:

Typically applies to wireless projects. Typically is not applicable to 802.3 projects.

In dealing with 5 Criteria, it is important not to apply the concept of "plain and ordinary meaning" since the 5 Criteria are actually driven by very specific questions.

Slide 11, Broad Market Potential (BMP):

Not necessarily referencing large dollar market. Standard shall have potential for multiple vendors and numerous users. No matter how many units sold, if there is only one vendor, then it's a spec not a standard.

Discussion about BMP time horizon – there is no time window for BMP because some companies have different time horizons.

Slide 12, Compatibility:

Clause 30 management. Usually not a problem for PHY projects

Slide 13, Distinct Identity:

New CSD has simplified Distinct Identity – more narrow than in the past. Instead of "one unique solution per problem," the requirement is to be "substantially different."

Slide 14, Technical Feasibility:

Technical Feasibility is only 5 Criteria item that has time frame – technical feasibility within timeline of project. Straight forward requirements.

Slide 15, Economic Feasibility:

Newer CSD wording for Economic Feasibility. Substantial changes – requirement expanded out. Wording now for cost for performance analysis is “may be addressed” not “shall.” Provide evidence for, not prove. Reasonable idea of cost target – something relative to cost of existing systems.

Useful to think of PAR, CSD and Objectives as a pyramid. PAR is the base (change is very difficult). CSD is the next level and base for objectives. Objectives are top level (easiest to change in terms of output of Study Group).

Presentations/contributions should address the CSDs

Meeting closed at 1:05 pm ET.