Meeting Minutes

Group: IEEE P802.3cs Physical Layers for increased-reach Ethernet optical subscriber access (Super-PON) Task Force

Event: Interim meeting

Date: 15 January 2019

Location: Long Beach CA USA

Opening

9/12/2018 9:00 AM The meeting was called to order by David Law, the Working Group Chair. Duane Remein volunteered to serve as recording secretary. Claudio DeSanti was confirmed as the Task Force chair.

Motion # 1			
Confirm Claudio DeSanti as P802.3cs Physical Layers for increased-reach Ethernet optical subscriber access (Super-PON) Task Force chair.			
Moved: Duane Remein		Second: Mark Laubach	
For: 14	Against: 0	Abstain: 0	
By rule (75%)			Motion Passed

Unless noted otherwise all files referenced in these minutes are located at the following URL: http://www.ieee802.org/3/cs/public/201901/.

The chair held introductions and proposed an agenda and began his opening report (see Agenda_Long_Beach.pdf) covering meeting decorum.

Motion # 2	
Move to approve the agenda as shown in Agenda_Long_Beach.pdf.	
Moved: Marek Hajduczenia	Second: Frank Effenberger
Procedural (>50%)	Motion Passed by Voice without opposition

Motion # 3	
Move to approve the minutes of the past meeting http://www.ieee802.org/3/SUPER_PON/public/201811/Draft_Minutes_SuperPON_SG_1118_Bangkok.pdf	
Moved: Duane Remein	Second: Kevin Noll
Procedural (>50%)	Motion Passed by Voice without opposition

The Chair continued the opening report covering meeting goals, big ticket items, email reflector, Task Force Web site, meeting ground rules, IEEE structure, IEEE bylaws, IEEE rules, IEEE meeting guidelines, IEEE Participation guidelines, and IEEE 802.3 process.

1/15/2019 9:18: AM – The Chair made a call for patents, there was no response made.

Presentations

11/15/18 9:20 AM the SG began hearing and discussing presentations.

All presentations are in the following format:
Presentation #
Title Presenter affiliation
Comments
Filename: FileRef

Presentation # 1
P802.3cs Architectural Options Liang Du Google
This presentation reviewed project requirements and suggested that we use the C band for US and L band for DS. It also asked two questions: 1)Will dispersion compensation be needed to ease requirements on the network amplifier? 2) Will per channel equalization be needed?
Filename: 201901_01-P802.3cs_Architectural_Options.pdf

Presentation # 2
Burst Mode Wavelength Stabilization Frank Effenberger Huawei
This presentation described experimental results of investigations into burst mode in a tunable TDMA environment. The conclusion of these experiments was that some means of mitigating thermally induced wavelength drift is required in these applications. Two possible mechanisms were briefly described.
Filename: 201901_02-Burst-Mode_Wavelength_Stabilization.pdf

Presentation # 3
Reach, fan-out, power-budget and dispersion tolerance of a Quasi-Coherent Super-PON
Jesper Bevensee Jensen Bifrost
This presentation provided additional details on the quasi-coherent receiver first described in the Nov 2018 meeting. The presentation included experimental results showing visibility of a 25 Gb/s system and an 80 km system.
Filename: 201901_03-Quasi-Coherent_Super-PON.pdf

11/15/18 10:08 AM – break, reconvened at 10:30 AM

Presentation # 4
P802.3cs Chromatic Dispersion Considerations Liang Du Google
This presentation reported simulation results of CD versus laser chirp for both DS and US. It was concluded that dispersion compensation is not needed in the DS if chirp can be close to zero or less. For the US dispersion compensation is indicated.
Filename: 201901_04-P802.3cs_Chromatic_Dispersion_Considerations.pdf

Presentation # 5

Chromatic Dispersion Compensation in Super-PON Networks with FBG-Based, Multi-Channel Chromatic Dispersion Compensators Patrick Lebeau TeraXion

This presentation reviewed characteristics of fiber Bragg grating-based multi-channel dispersion compensation modules.

Filename: 201901_05-Chromatic_Dispersion Compensation_in_Super-PON.pdf

Presentation # 6

P802.3cs Super-PON Link Budget Analysis Xiangjun Zhao Google

This presentation looked at the optical budget for a 50 km x 64 split system. It was concluded that, in the US, a Tunable EML with 3dBm output or a Tunable DML + DCM will be needed. It was also noted that the maximum gain of the network amplifier may be a limiting factor which may require use of a VMUX.

Filename: 201901_06-P802.3cs_Super-PON_Link_Budget.pdf

Presentation # 7

Burst-mode capable EDFAs Liang Du (for Qing Wei) Accelink

This presentation reviewed the characteristics of EDFAs especially with respect to burst mode applications.

Filename: 201901_07-Burst-Mode_capable_EDFAs.pdf

Presentation # 8

PCS Considerations Claudio DeSanti Google

This presentation suggested that Super-PON could adopt either the 802.3av PCS or the 802.3ca PCS.

Filename: 201901_08-PCS_Considerations.pdf

Closing

The Chair opened discussion on a possible ah hoc call in the Feb. time frame (assuming material was available). There was no objections to this proposal.

Future meeting polls were taken.

Location (start date)	**Planned attendance**		
	Will	Will Not	May
Vancouver, BC (3/11/19)	18	0	2
Salt Lake UT (5/20/19)	11	2	4
Vienna Austria (7/15/19)	13	0	5

Motion # 4		
Move to adjourn.		
Moved: Duane Remein	Second: Marek Hajduczenia	
Procedural (>50%)		Motion Passed by Voice without opposition

1/15/2019 12:00 PM

The meeting was adjourned.

Attendance

Full Name	Employeer	Affiliation(s)
Claudio DeSanti	Google	Google
Liang Du	Google	Google
Frank Effenberger	Huawei	Huawei
Vincent Ferretti	Corning	Corning
Jonathan Goldberg	IEEE	IEEE
Marek Hajduczenia	Charter	Charter
Jesper Jensen	Bifrost	Bifrost
Glen Kramer	Broadcom Inc.	Broadcom Inc.
Mark Laubach	Broadcom Inc.	Broadcom Inc.
David Law	HPE	HPE
Patric LeBeau	TeraXion	TeraXion
Hanhyub Lee	ETRI	ETRI
Paul Nikolich	Self	802 Chairman
Kevin Noll	Tibit Communication	Tibit Communication
Phong Pham	US Conel	US Conel
Bill Powell	Nokia	Nokia
Duane Remein	Huawei	Huawei
Alexander Umnov	Corning	Corning
Yu Xu	Huawei	Huawei
James Young	Commscope	Commscope
Xiangjun Zhao	Google	Google