

SMF Ad Hoc report

Pete Anslow, Ciena, SMF Ad Hoc Chair

IEEE P802.3bs Task Force, Ottawa, Canada, September 2014

Activity

The IEEE P802.3bs 400 Gb/s Ethernet Task Force SMF Ad Hoc has:

- Held two conference calls since the San Diego meeting:
 - 5 August 2014 – 36 attendees
 - 19 August 2014 – 61 attendees
- Reviewed 4 presentations:
 - SNR Penalties of SMF PMD Alternatives [cole_01a_0814_smf](#)
 - Compared the ideal and design penalties of a variety of candidate optical modulation formats.
 - Optical Specifications of SMF PMD Alternatives Study [cole_02_0814_smf](#)
 - Contained a set of idealised optical budgets for the candidate optical modulation formats as a starting point for comparison
 - Technical feasibility of 56Gbaud PAM4 optical link budget based on experimental measurements [mazzini_01a_0814_smf](#)
 - Provided experimental measurements of a 56GBd PAM4 optical link to investigate technical feasibility.
 - Impact of Clipping for Optical DMT [nishihara_01_0814_smf](#)
 - Provided an simulation based analysis of the performance impact of various clipping levels on optical DMT
- Meeting minutes and presentations can be found at:
 - <http://www.ieee802.org/3/bs/public/adhoc/smf/index.shtml>

Going forward

There are SMF contributions to this meeting proposing:

- 50 Gb/s NRZ
- 50 Gb/s PAM4
- 100 Gb/s PAM4
- 100 Gb/s Nyquist PAM4
- 100 Gb/s DMT

However, these are (in general) not consensus presentations that provide all of the detail required to enable them to be adopted as a baseline for one of the project objectives. To allow us to adopt something as a baseline we need:

- A good level of consensus to enable a motion to reach 75% approval
- Confidence in economic feasibility and broad market potential
- A detailed power budget
- Measurements of key parameters such as dispersion tolerance etc.

Thanks!