

SMF Ad Hoc report

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Introduction

The 40 Gb/s and 100 Gb/s Fiber Optic Task Force SMF Ad Hoc has:

- Held four conference calls since the Phoenix meeting:
 - 5 February 2013
 - 12 February 2013
 - 19 February 2013
 - 5 March 2013
- Reviewed 6 presentations:
 - SMF Straw Polls [dove_01_0213_smf](#)
 - 500 m SMF Objective Baseline Proposal [anderson_01_0213_smf](#)
 - 100Gb/s SMF PMDs [cole_01b_0213_smf](#)
 - Loss Budgeting for Single-mode Channels [kolesar_01_0213_smf](#)
 - CWDM Solution for 500m SMF Economical Feasibility [shen_01a_0313_smf](#)
 - 500 m SMF Objective Baseline Proposal [anderson_01_0313_smf](#)
- Meeting minutes and presentations can be found at:
 - <http://www.ieee802.org/3/bm/public/smfadhoc/meetings/index.html>

Proposals

[dove_01_0213_smf](#) reviewed the straw poll results from Phoenix and recommended aspects of the various proposals for the Task Force to focus on.

[anderson_01_0213_smf](#) contained a 4 fiber parallel SMF baseline proposal. Several aspects of this were identified as in need of refinement.

[cole_01b_0213_smf](#) compared the cost and power between the evolving 100GBASE-LR4 and the proposed parallel SMF solution.

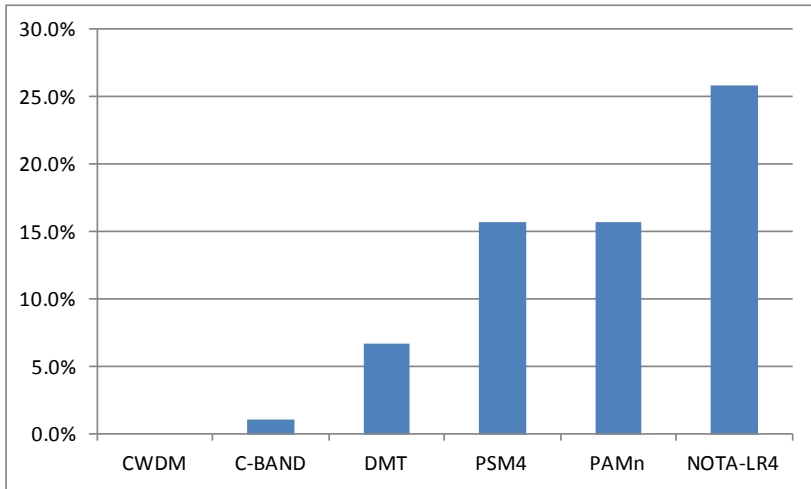
[kolesar_01_0213_smf](#) used a statistical approach to derive a proposed minimum loss budget for both 2-fiber and parallel SMF channels appropriate to a structured cabling environment.

[shen_01a_0313_smf](#) provided analysis on the economic feasibility of a CWDM proposal in comparison with 100GBASE-LR4 and a parallel SMF solution.

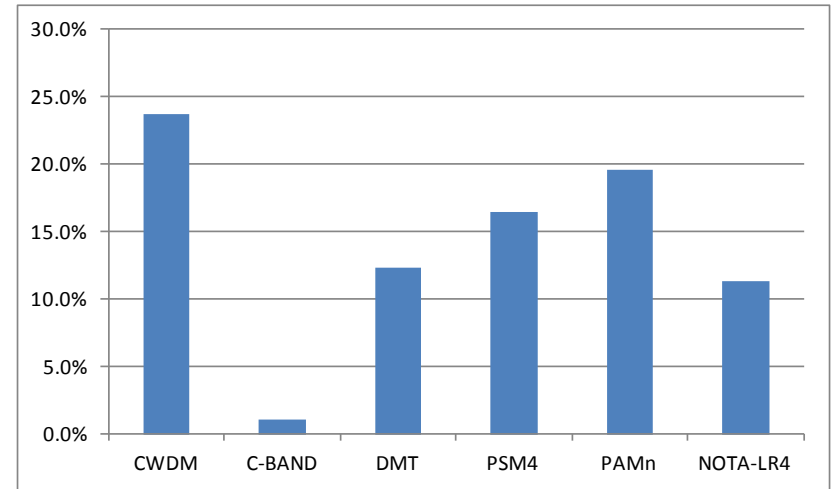
[anderson_01_0313_smf](#) contained an updated version of the 4 fiber parallel SMF baseline proposal.

Consensus?

I would support a baseline proposal for a SMF PMD based on:



Straw poll #5 San Antonio
(65% voted)



Straw poll #1 from Phoenix
(85% voted)

So there was still no consensus on a new PMD proposal in Phoenix (although a considerably different distribution between the two polls).

This means that more presentations are required to build sufficient consensus to allow a decision on how the 500m over SMF objective will be met.

Future meetings

The Task Force has an objective:

Define a 100 Gb/s PHY for operation up to at least 500 m of SMF

The Distinct Identity response contains:

6. The amendment will enable new PHY types over SMF which consist of the existing 100GBASE-LR4 and 100GBASE-ER4 optical PMDs with four electrical interconnect lanes in each direction. The amendment will define a new 100 Gb/s SMF PMD in addition to these if it can be shown that a SMF PMD with a shorter reach than 100GBASE-LR4 has sufficient cost, density, or power difference to justify an additional SMF PMD type.

Presentations aimed at reaching consensus on a baseline proposal targeted at meeting this objective would be appropriate for future SMF Ad Hoc meetings.

Thanks!