100G Next Gen Optics MMF ad hoc meetings review

24th January 2012

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100G Next Gen Optics MMF ad hoc

- Formed at November 2011 plenary
  - 5 teleconferences meetings > 60-90 minutes each
  - Typically 20-30 experts, diverse backgrounds across the industry
  - Meeting notes and presented materials are available on the 100G Next Gen Optics website:

http://www.ieee802.org/3/100GNGOPTX/public/mmfadhoc/meetings/index.html

and

http://www.ieee802.org/3/100GNGOPTX/public/tools/index.html

1st meeting (22nd Nov. 2011): MMF ad hoc aims

"Discussion was wide ranging and turbulent"

…but some themes emerged:

- The MMF ad hoc should develop objectives which can then be judged against the 5 criteria by the study group as a whole.
- *We haven't agreed objectives yet*
- MMF objectives should have supporting work which estimates 'performance' (e.g. % link coverage for data centers), and 'relative cost', and 'relative power burn'.
  - Graphs of relative link cost vs reach, and/or relative power consumption vs reach would be a desirable output from this ad hoc into the main study group.
- *We've had multiple contributions of supporting work on coverage, relative cost, power, and with reasonable agreement*
- *Graphs and tables will be seen in presentations this meeting !*

Topics addressed

- Cost/power vs coverage optimization tool
  - PMD Solution Set Analyzer
- Relative cost and power of 100G-SR4 module vs reach
  - 100G-SR10 with CPPI interface as reference
  - Focus on retimed modules, Tx and Rx EQ, from simple to more complex adaptive schemes, and FEC
    - MMF Ad-Hoc December Review
    - Power and Complexity of 100G-SR4 Implementations
    - 100G-SR4-Rel-power-cost-jan2012
    - 100G Next Gen SR4 vis-a-vis SR10
- Mode Partition Noise handling in the spreadsheet model
  - still under discussion
    - Mode partition noise handling in spreadsheet model
    - 10GEPBud3_1_16a_25G with MPN changes pepeljugoski for web
    - Standard-MPN-vs-revised-MPN-model