TP2 con-calls summary

June 23 – July 14 (5 calls)

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San Francisco, July 2005

ClariPhy Communications, Inc.

Participants

- Lew Aronson
- Majid Barazande-Pour
- Ernie Bergmann
- David Cunningham
- John Dallesassee
- Piers Dawe
- Mike Dudek
- John Ewen
- Joe Gwinn
- John Jaeger
- Jonathan King
- Paul Kolesar
- Ryan Latchman
- Tom Lindsay
- Gaurav Maholtra
- Jim McVey
- Jan Peeters Weem
- Petar Pepeljugoski
- Petre Popescu
- Albrecht Rommel
- Norm Swenson
- Vivek Telang
- Andre Van Schyndel
- Paul Wachtel
- Others?

Background

- Vancouver presentation by Aronson regarding pre-emphasis initiated numerous subsequent discussions about what TWDP is (or should be) telling us
- TWDP received many related comments in D2.0 balloting
  - Penalty normalization
  - Determination of OMA and bias values
  - EQ length
- Goal of calls since London has been to resolve the discussions and comments

Presentations and highlights of calls

- **TWDP focus**
- ClariPhy, 6/23 - *Progressing TWDP - Follow-on from London*
  - Organizational goals, decisions required, technical options
- ClariPhy, 6/28 – *Analysis of SNR, TWDP and Implementation Penalty vs. measured waveforms for finite EQ lengths*
  - Data/results of OMA and OMSD normalization methods, EQ lengths
- Broadcom, 7/12 – *Correlation of Measured Waveform Penalties with Equalizer Lengths*
  - Generally trends are monotonic, some waveforms are more sensitive than others
- ClariPhy, 7/12 – *Penalty sensitivities due to Rx impairments vs. TP2 waveforms*
  - Wide variety of sensitivities to sample offsets, Rx bandwidth, and IP length
- ClariPhy, 7/5 & 7/12 – *Effect of non-linearities on penalties for good waveforms*
  - up to ~0.5 dB penalty due non-linearities of real transmitters

July 14 call: Summary recommendations for TWDP

- With all the discussions, our understanding of the issues has improved dramatically
- The present TWDP algorithm works, enables a successful standard, and the standard should go forward
- Improvements are being evaluated and should have an opportunity to be considered, if timely, but *unless and until* we have something demonstrably better, we should not make a change

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Still in work

- Limit(s)
  - Stressors & PIE-D
  - Adjustment of limit(s) relative to TP3 and reference Gaussian results