Report

on the

June 1-3, 1999

INTERIM MEETING OF THE 802.3 HIGH SPEED STUDY GROUP

Coeur d'Alene, ID

Jonathan Thatcher

jonathan@picolight.com

Objectives For The Week

- Begin to define the OBJECTIVES for the HSSG

  - It is traditional for 802.3 to derive objectives from market requirements. This means market pull, not technology push

- Put a Plan together to REFINE the OBJECTIVES

- Improve understanding of TECHNICAL PROPOSALS

- **NCITS T11.2 Assistance to HSSG**
  - **Rich Taborek**
- **Requirements and Objectives**
  - **Bruce Tolley -- Market Requirements**
  - **Tad Szostak -- Fiber Survey: BICSI**
  - **Bill St. Arnaud -- 10XGbE in WAN**
  - **Roy Bynum -- Extended Users Perspective**
  - **Mike Bennett -- User perspective on 10 Gig**
  - **Bob Grow -- Objectives for Higher Speed 802.3**
  - **Nader Vijeh -- Requirements for MAN**
- **Architecture**
  - **Mike Salzman -- 10 Gig Architecture and Objectives**
  - **Shimon Muller -- Architecture for a 10-Gigabit Ethernet Standard**
  - **David Law -- Architecting the Standard**
  - **Rich Taborek -- Auto Negotiation**

- **New MII**
  - **Richard Dugan -- Electrical board-level signal rates and multiplex issues for 10GbE**
  - **Shawn Rogers -- GMII "Clay Pigeons"**
  - **Bob Grow -- MII Issues for 10Gbps Operation**
- **Coding**
  - **Changoo Lee -- mB810 Coding**
  - **Paul Bottorf -- Scrambling**
  - **John Ewen -- 10 Gig PHY and Coding**
  - **Rich Taborek -- MAS Technology and Applications**

- **PHY**
  - **Rob Marsland -- A Review of the DARPA sponsored Optical Link for Radar Digital Processor program**
  - **Vipul Bhatt -- WWDM for Metropolitan Area Applications of 10GbE**
  - **Jaime E. Kardontchik -- 10 Gigabit BASE-T**
  - **Brian Peters -- 8x1.25 Gbps WDM for 10G Ethernet**
  - **Brian Lemoff -- WWDM Transceiver Module**
  - **Lisa Buckman -- DFB Laser Source Study**
  - **Paul Kolesar -- 10 Gig Multimode System Update**
  - **Ed Cornejo -- Serial Optical PMD Proposals**
  - **Fred Weniger -- 10 Gig Serialization**
  - **Piers Dawe -- Serial 10 Gb/s Transceiver Link Performance Analysis**

Reflector & Web Site

- **The IEEE has set up a reflector for the HSSG:**

  stds-802-3-hssg@mail.ieee.org

  - **To be added to the reflector, send an E- mail containing the following line: subscribe stds-802-3-hssg <your email address> to majordomo@mail.ieee.org**

  - **To send a message to the HSSG reflector use the email address: stds-802-3-hssg@ieee.org**

- **David Law has set up a complete web structure supporting the activity under http://grouper.ieee.org/groups/802/3/**

  - All past presentations

  - Minutes from past meetings

  - Reflector Archives

    - **HSSG Reflector**

    - **Ad hoc Reflectors**

Passed Motions

- Confirm Jonathan Thatcher as the chair of the HSSG. (acclamation)
- Adopt as objectives for the Higher Speed Study Group:
  - Preserve the 802.3/Ethernet frame format at the MAC Client service interface. (acclamation)
  - Meet 802 Functional Requirements, with the possible exception of Hamming Distance. (Y: 63 N: 2 A: 16)
  - Preserve minimum and maximum FrameSize of current 802.3 Std. (acclamation)
  - Support full-duplex operation only. (acclamation)
  - Support star-wired local area networks using point-to-point links and structured cabling topologies. (Y: 55 N: 11 A: 17)
  - Specify an optional Media Independent Interface. (Y: 52 N: 0 A: 6)

Failed Motions

- Support media selected from ISO/IEC 11801 (Y: 18 N: 38 A: 16)
  - Support fiber media selected from ISO/IEC 11801-A and, if possible, copper media. (Y: 31 N: 43 A: 5)

Tabled Motions

- Support operation at the MAC/PLS service interface at data rate of:

  a. 10,000 Mb/s in the local area environment

  b. ~10,000 Mb/s in the metropolitan area environment

    – *MOTION TO AMEND:* Strike item (b)

- Provide a family of Physical Layer specifications which support a link distance of:

  a. At least 100m on multimode fiber

  b. At least 3 km on single mode fiber

    – *MOTION TO AMEND:*

      - Change item (a) to read Building LANs, item (b) to read Campus LANs and add item (c) Metropolitan Area Networks and item (d) Access to Wide Area Networks. (Y: 24 N: 20 A: 10)

- 'Provide specification for both the single-channel (serial) and multi-channel (L1 Link Aggregation) transmission based scheme'

Actions from the June, 1999, Interim, HSSG Meeting

1. Jonathan Thatcher -- Ad hoc chair to bring together parties interested in undertaking a fibre survey and form a motion by the end of the week's meeting. **(complete)**
2. Jonathan Thatcher - Place item 'Report from Fibre Survey' on September Agenda. **(complete)**
3. Mr David Law - Configure a reflector for Fibre survey AdHoc. **(complete)**
4. Geoff Thompson -- 'Media AdHoc': Draft acceptable alternative Objective 8 with supporting presentation. (Geoff Thompson) **(complete)**
5. Jonathan Thatcher: Place time on July agenda for report from 'Media' Ad-hoc **(complete)**
6. Jonathan Thatcher - Add consideration of postponed Grow/Muller Objective 6 (Speed) motion to July agenda. **(complete)**
7. Jonathan Thatcher - Add consideration of postponed Grow/Dineen Objective 9 (Distance) motion to July agenda. **(complete)**
8. Jonathan Thatcher - Add consideration of postponed Muller/Taborek motion to July agenda. 'Provide specification for both the single-channel (serial) and multi-channel (L1 Link Aggregation) transmission based scheme' **(complete)**
9. Walter Thirion – Send e-mail to HSSG reflector to invite further participants. (**complete)**
10. David Law – Configure e-mail reflector and web page for this AdHoc **(complete)**
11. **Speed AdHoc – Recommend new speed objective and provide backup presentation material as necessary.**
12. Del Hanson – Send e-mail to HSSG reflector to invite further participants. **(complete)**
13. David Law – Configure e-mail reflector and web page for the AdHoc **(complete)**
14. **Distance AdHoc – Recommend new media/distance objective and provide backup presentation material as necessary.**
15. Jonathan Thatcher - Send e-mail to the HSSG reflector listing issues and, where appropriate, the persons with actions to provide presentation. **(complete)**
16. **Paul Bottorff to provide presentation for Wide Area Networks**
17. **Paul Bottorff to provide presentation on this issue in relation to scrambling at the July meeting**
18. **Kamran Azadet to provide presentation on Error Correction.**
19. Jonathan Thatcher – Arrange for Al Widmer to provide a presentation on 8B/10B coding and FEC at July meeting **(complete)**
20. Geoff Thompson to provide a proposal for 802.3 standards in process. **(complete)**
21. Jonathan Thatcher to draft the response to not supporting CSMA/CD in relation to the 5 criteria. **(complete)**