P802.3ae TF Logic Track Summary

Ben Brown

P802.3ae TF Logic Track Chair

13-July-2000

Blue Book Distribution

- Bob Grow, Intel: "History of the Blue Book"
  - Showed the original 1980 Ethernet Blue Book as generated by Digital, Intel & Xerox
  - Blue Books existed for 100 Mbps and 1000 Mbps Ethernet
- Brad Booth, Intel: "Blue Book Structure"
  - Layers for LAN & WAN, WWDM & Serial
  - Interfaces to be specified (XGMII, XAUI & XBI)
  - Adjacent blocks without specific interfaces (PCS/WIS, PMA/PMD)
  - Describes existing and new clauses
  - Reviewed latest nomenclature for PHY Types
  - Backup slides with possible implementations using standardized functions and interfaces

Presentations

- Shimon Muller, Sun: "Open Loop PHY Rate Control"
  - Entire scheme is more precise in response to Steve Haddock's "IPG & Frame Alignment" proposal

- Shimon Muller, Sun: "Changes to Existing Clauses"
  - Describes changes necessary for the "must haves"
    - Open Loop Rate Control
    - New References, Definitions, Abbreviations and Interfaces
    - Half/ Full Duplex Operation
    - Layer Diagram(s)
  - And the "services to humanity"
    - Speed Independence
    - CRC Passing
    - Document Structure
    - MAN/ WAN "friendliness"
    - Editorial Stuff

Presentations (cont.)

- Ed Turner, 3Com: "MDC/MDIO Baseline Proposal"
  - 24 PHYs were tested at UNH IOL for their response to ST=00
  - All 24 ignored them!
- David Law, 3Com: "Management MIB Baseline Proposal"
  - No changes
- Howard Frazier, Cisco: "XGMII Update"
  - Added code point values for I, S, T & E
  - Added some proposed setup & hold numbers
- Steve Haddock, Extreme: "IPG & Frame Alignment"
  - Keep MAC's minimum IPG at 12 bytes (96 bits)
  - Allow RS to "slide" packet to align S with lane 0
  - Results in minimum observed IPG of 9 bytes
  - Maintains minimum average IPG of 12 bytes

Presentations (cont.)

- Rich Taborek, nSerial: "XAUI/XGXS"
  - No changes

- Rich Taborek, nSerial: "/Random[A,K]/R/"
  - In support of 12-byte/3 column IPGs
  - Guarantees an /R/ column even in the shortest IPG
  - Statistically guarantees an /A/ and /K/ in 50% of shortest IPGs

- Rick Walker, Agilent: "64b/66b PCS"
  - Clarified bit ordering from 36-bit RS words to 66-bit frames
  - Added preamble to sample test vector
  - Clean up of state machines

Presentations (cont.)

- Norival Figueira, Nortel: "WIS Update"
  - Suggestions on how to write the standard by cross-reference to ANSI standards (T1.416-1999)
- Osamu Ishida, NTT: "LSS Proposal"
  - No technical changes
- Stuart Robinson, PMC-Sierra: "XBI - Optional Serial PMA Service Interface"
  - Includes some options for REFCLK specs
  - Add waveforms and proposed timing numbers
- Paul Bottorff, Nortel: "SUPI Update"
  - Added detail for lane synchronization and lane deskew
  - Proposed as a PMD Service Interface not a physical instantiation

Presentations (cont.)

- Tom Palkert, AMCC: "SUPI"
  - Suggest change to striping from 16 bits to 16 bytes
  - Compatible with proposed OIF VSR protocol

Motions

- Motion #1 included all non-PMD proposals in the Blue Book
  - Through a procedural maneuver, the motion was divided
- Motion #2: "Open Loop PHY Rate Control"
  - 802.3 Voters   Y: 113   N: 0   A: 7   **Pass**   100%
- Motion #3: "MDC/MDIO Baseline Proposal"
  - 802.3 Voters   Y: 106   N: 0   A: 10   **Pass**   100%
- Motion #4: "Management MIB Baseline Proposal"
  - 802.3 Voters   Y: 105   N: 0   A: 9   **Pass**   100%
- Motion #5: "XGMII Update"
  - 802.3 Voters   Y: 110   N: 0   A: 4   **Pass**   100%
- Motion #6: "XAUI/XGXS" as modified with /Random[A,K]/R/ proposal (taborek_1_0700)
  - 802.3 Voters   Y: 113   N: 0   A: 7   **Pass**   100%
- Motion #7: "64b/66b PCS"
  - 802.3 Voters   Y: 104   N: 4   A: 9   **Pass**   96.3%

Motions

- Motion #8: "WIS Update"
  - 802.3 Voters   Y: 104   N: 4   A: 9   **Pass**   96.3%
- Motion #9: "LSS Proposal"
  - 802.3 Voters   Y: 55   N: 32   A: 43   **Fail**   63.2%
  - Attendees   Y: 76   N: 49   A: 83   60.8%
- Motion #10: "XBI - Optional Serial PMA Service Interface"
  - 802.3 Voters   Y: 85   N: 11   A: 22   **Pass**   88.5%
- Motion #11: "SUPI Update"
  - 802.3 Voters   Y: 83   N: 9   A: 25   **Pass**   90.2%
- Motion #12: "IPG & Frame Alignment"
  - 802.3 Voters   Y: 92   N: 1   A: 6   **Pass**   98.9%

Thanks!