Network Elements Inc.
enabling the Next Generation Internet

AMCC
APPLIED MICRO CIRCUITS CORPORATION

Optical Internetworking Forum Report to IEEE 802.3ae

Hilton Head SC

March 2001

Tom Palkert, AMCC

tomp@amcc.com

Raj Savara, Network Elements

rsavara@networkelements.com

Optical Internetworking Forum

- The mission of the Optical Internetworking Forum (OIF) is to foster the development and deployment of interoperable products and services for data switching and routing using optical networking technologies.
- Physical and Link Layer (PLL) working group
  - Specifies implementation agreements related to physical and data-link layer interfaces between Optical Internetworking elements, reusing existing standards when applicable.
- How can the OIF PLL group and IEEE 802.3ae work together?

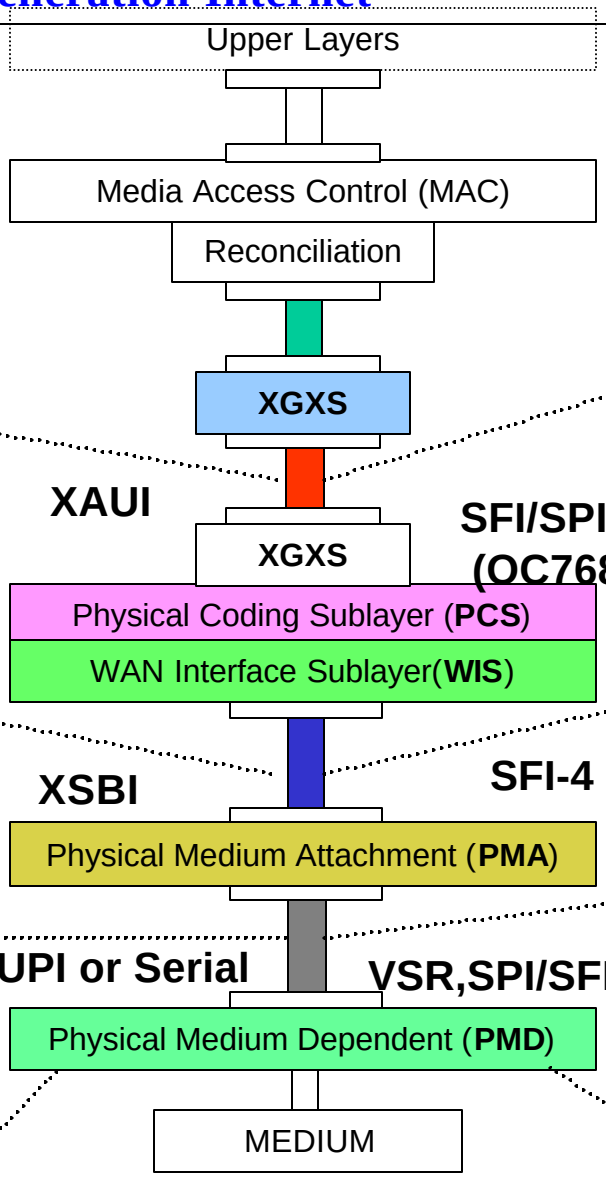
Network Elements Inc.

enabling the Next Generation Internet

AMCC
APPLIED MICRO CIRCUITS CORPORATION

802.3ae proposed specs

OIF PLL specs



- 4x3.125 Gbps (8B10B)
- Uses 16x2.5/3.125Gpbs XAUI 'like' connections.
- 16x622 MHz LVDS (WAN) or 16x644MHz LVDS (LAN)
- 16x622 MHz LVDS spec formed the basis for the XSBI
- 4x2.5 Gbps (WAN) or 1x9.956 Gbps (WAN) or 1x10.3 Gbps (LAN)
- 1x10 Gbps, 4x2.5 Gbps or 16x2.5/3.125 Gbps
- 10Gbps serial (1300 nm DFB, 850 nm VCSEL)
- 10Gbps serial (1300 nm DFB, 850 VCSEL), 4x2.5Gbps (Parallel or CWDM),

OIF activity

- OC192 VSR proposals that relate to 802.3ae:
  - Four fiber VSR OC192 - Passed Principle ballot
  - OC-192 1310 nm VSR - Passed Principle ballot
  - Serial Short Wave VSR Interface for Multimode Fiber - Passed Principle ballot
  - CWDM short wave 4 wavelength VSR- Passed Straw ballot
- SFI/SPI-5 baseline specification uses 16x2.5/3.125G I/O. (40 Gbps)

Proposal for sharing presentations

- OIF has authorized the liaisons to forward documents that we think would be of interest to IEEE.
  - I will post the SFI/SPI-5 common electrical specification and solicit contributions.