A decorative L-shaped graphic in the top-left corner, composed of multiple parallel lines in a rainbow color sequence (blue, green, yellow, orange, red) that meet at a black right-angled triangle.

Blue Book Structure

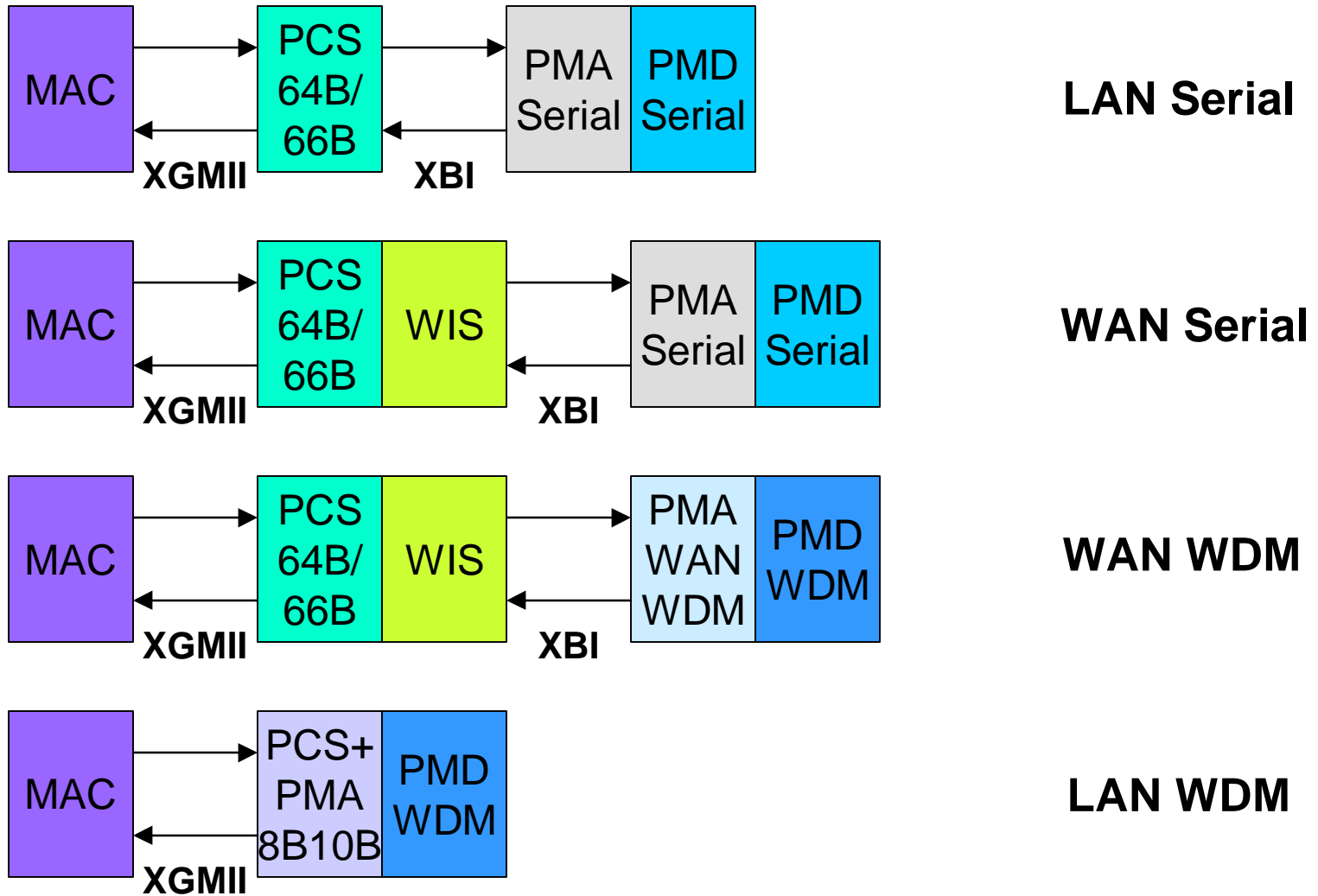
Brad Booth
July 2000



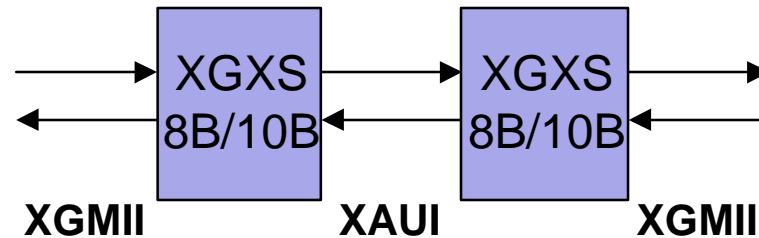
Outline

- P802.3ae Layers and Interfaces
- Existing Clauses
 - Presentation list
- New Clauses
 - Presentation list
- Nomenclature
- Backup
 - Implementation examples

P802.3ae Layers



P802.3ae XAUI: XGMII Extender



- Notes:
 - XGXS - XAUI - XGXS blocks can be used to extend the XGMII with any PCS/PMA combination.
 - When used in conjunction with the LAN WDM, the second XGXS & the PCS+PMA blocks can be simplified to a re-timing block to reset jitter budget.
 - The XGXS / XAUI specification is a sub-clause XGMII clause with reference to the 8B/10B PCS and PMA clause.



P802.3ae Interfaces

- Adjacent blocks (no interface shown) implies no specified instantiation of the interface in the standard.
 - PCS to WIS
 - PMA to PMD
- Interfaces shown are optional instantiations specified in the standard.
 - XGMII, XAUI, XBI

Existing Clauses

- No Presentations on:
 - Clause 1 - Introduction
 - Layer diagram, half duplex & CSMA/CD wording, additions to definitions, additions to abbreviations, speed independent
 - Clause 2 - MAC Service
 - Layer diagram, speed independent
 - Clause 3 - MAC Frame Structure
 - Speed independent

Existing Clauses (cont.)

- No Presentations on:
 - Clause 4 - Media Access Control
 - Layer diagram, parameterized values, speed independent
 - Clause 5
 - Half duplex wording
 - Clause 6 - PLS Service
 - Layer diagram
 - Clause 22 - Reconciliation Sublayer & MII
 - Layer diagram

A decorative border consisting of a vertical rainbow bar on the left and a horizontal rainbow bar at the bottom, meeting at a black arrowhead pointing towards the bottom-left corner.

Existing Clauses (cont.)

- No Presentations on:
 - Annex 31B - MAC Control PAUSE
 - Pause quanta requirements



Existing Clauses (cont.)

- Clause 4 - Media Access Control
 - Rate adaptation
 - Presentation: muller_1_0700; “Proposal for an Open Loop PHY Rate Control Mechanism”
- Clause 22 - Reconciliation Sublayer & MII
 - Management interface registers
 - Presentation: law_1_0700; “IEEE P802.3ae 10Gb/s Ethernet MDC/MDIO Baseline Proposal”



Existing Clauses (cont.)

- Clause 30 - Management
 - PHY/PMD attributes
 - Presentation: law_2_0700; “IEEE P802.3ae 10Gb/s Ethernet Management MIB Baseline Proposal”

New Clauses

- Clause 45 - Introduction to 10G
 - No presentation
- Clause 46 - RS & XGMII including XGMII Extender (XGXS & XAUI)
 - Presentation: frazier_1_0700; “XGMII Update”
 - Presentation: taborek_2_0500; “XAUI/XGXS Proposal”
 - XGXS will reference 8B/10B PCS & PMA in Clause 47

New Clauses (cont.)

- Clause 47 - 8B/10B PCS and PMA
 - Presentation: taborek_2_0500; “XAUI/XGXS Proposal”
 - Only contains 8B/10B PCS & PMA
- Clause 48 - 64b/66b PCS
 - Presentation: walker_1_0700; “64b/66b PCS”
- Clause 49 - WIS
 - Presentation: figueira_1_0700; “WAN Interface Sublayer (WIS) Update”

New Clauses (cont.)

- Clause 50 - LSS
 - Presentation: ishida_1_0700; “Link Signaling Sublayer (LSS) Proposal”
- Clause 51 - Serial PMA including XBI
 - Presentation: robinson_1_0700; “XBI - Optional PMA Service Interface for Serial PMD’s”
 - No presentation on SERDES function as considered straight forward (802.3z)

New Clauses (cont.)

- Clause 52 - WAN WWDM PMA
 - Presentation: bottorff_1_0700; “SUPI Update”
- Clause 53 - 1310nm & 1550nm Serial PMD
- Clause 54 - 1310nm WWDM PMD
 - Presentation: hanson_1_0500; “Proposed Set Of Three 10 Gigabit Ethernet PMDs & Related Specifications”



Nomenclature

- Three part suffix
 - Medium type
 - L = Long wavelength (1300nm)
 - E = Extra long wavelength (1500nm)
 - Coding scheme
 - X = LAN (8B/10B or 64b/66b block coding)
 - W = WAN (SONET encapsulated coding)
 - Wavelengths
 - 1 = Serial (not required as Serial is implied)
 - n = number of wavelengths (4 for WWDM)



Nomenclature Examples

- 1) 10GBASE-LX (1310nm Serial LAN)
- 2) 10GBASE-EX (1550nm Serial LAN)
- 3) 10GBASE-LW (1310nm Serial WAN)
- 4) 10GBASE-EW (1550nm Serial WAN)
- 5) 10GBASE-LX4 (1310nm WDM LAN)
- 6) 10GBASE-LW4 (1310nm WDM WAN)



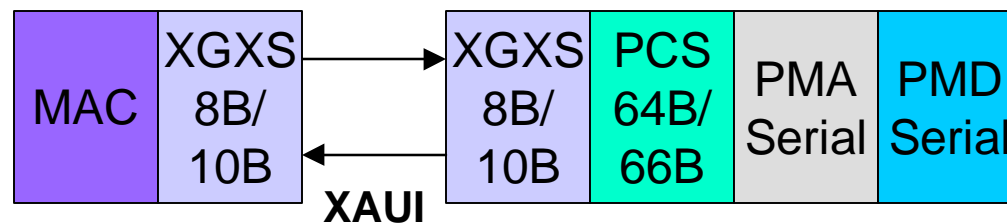
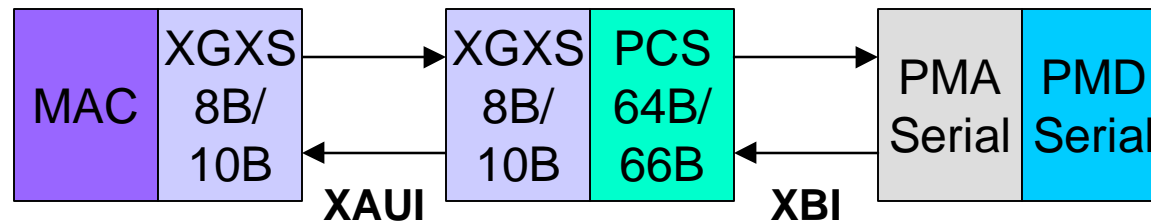
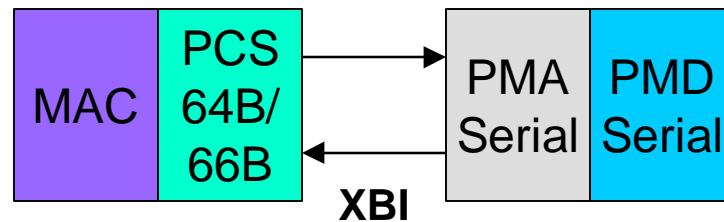
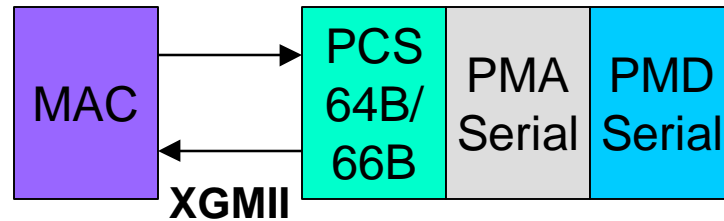
Backup

Implementation Examples

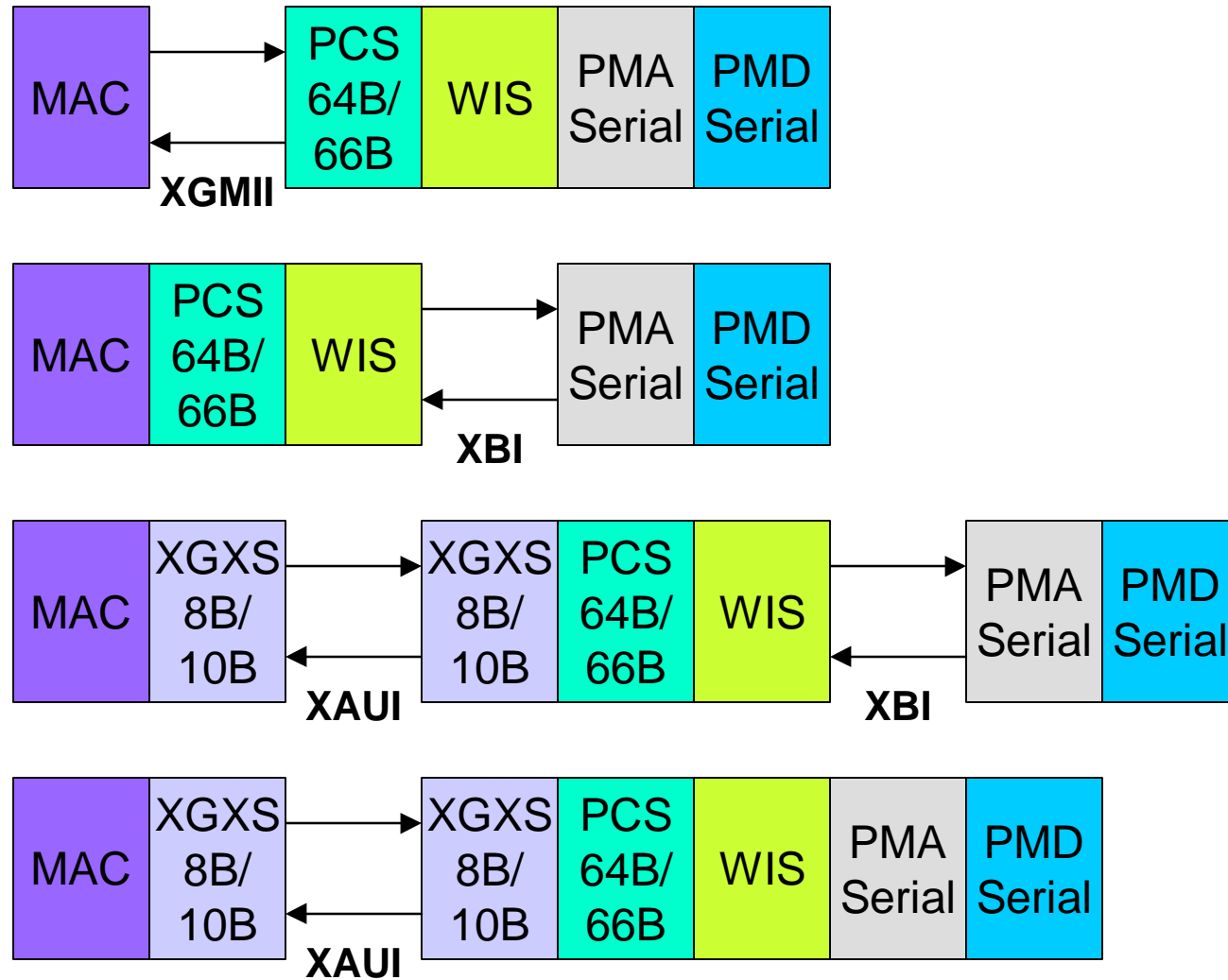
Notes

- **Implementation examples do not imply any standardization effort**
- Implementation examples show possible interface locations or design partitioning
- Any presentations incorporating the following implementations are not outside the scope of the standard

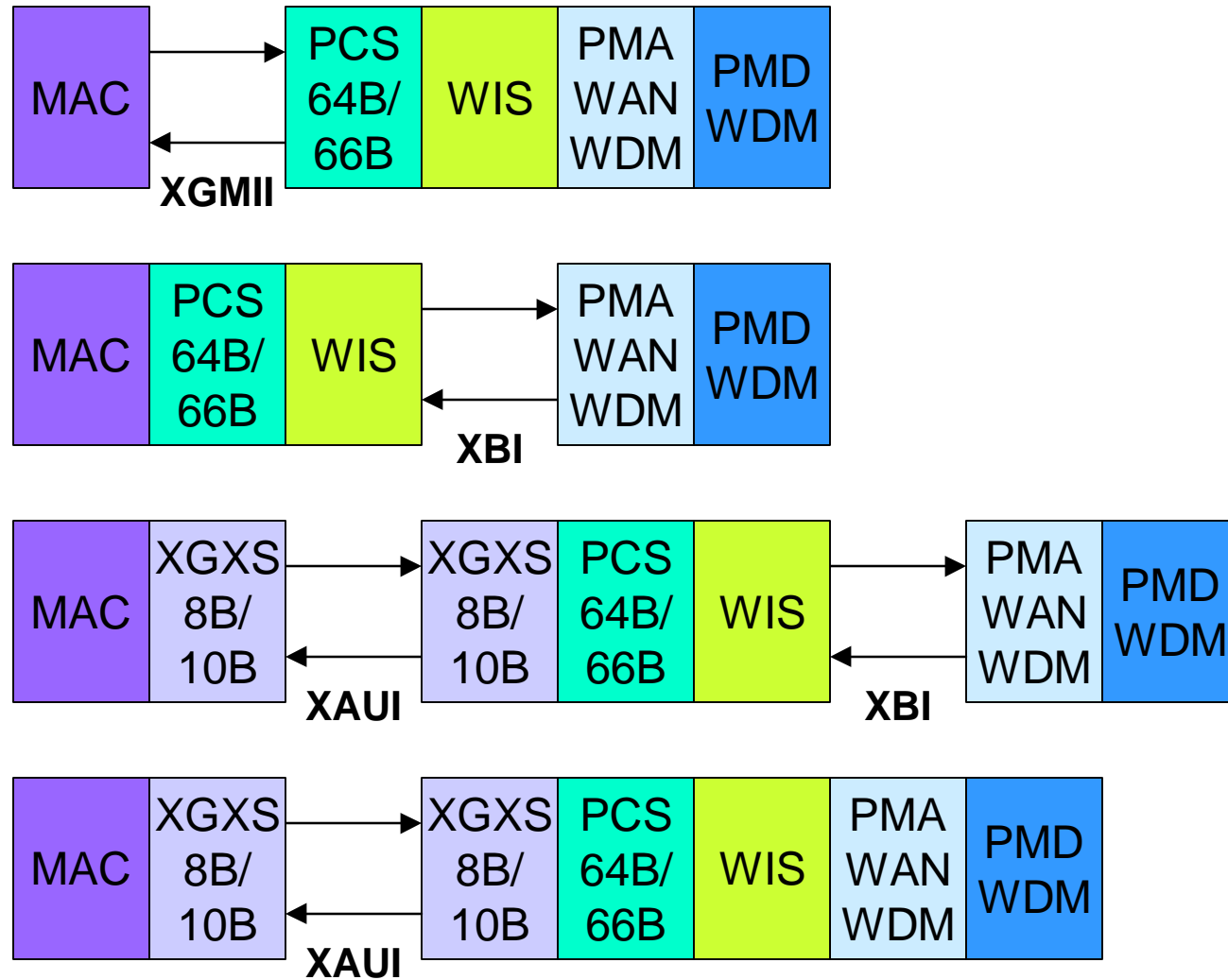
LAN Serial Implementations



WAN Serial Implementations



WAN WDM Implementations



LAN WDM Implementations

