

Thoughts on Proposed Text for CDMII Extender / CDXS Sublayer

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Foreword

- Comment # 33 – CDXS Sub-clause yet to be completed
- This presentation is intended to initiate discussion on text for Clause 118 CDMII Extender and CDMII Extender Sublayer (CDXS)

Proposed Text for 118.1

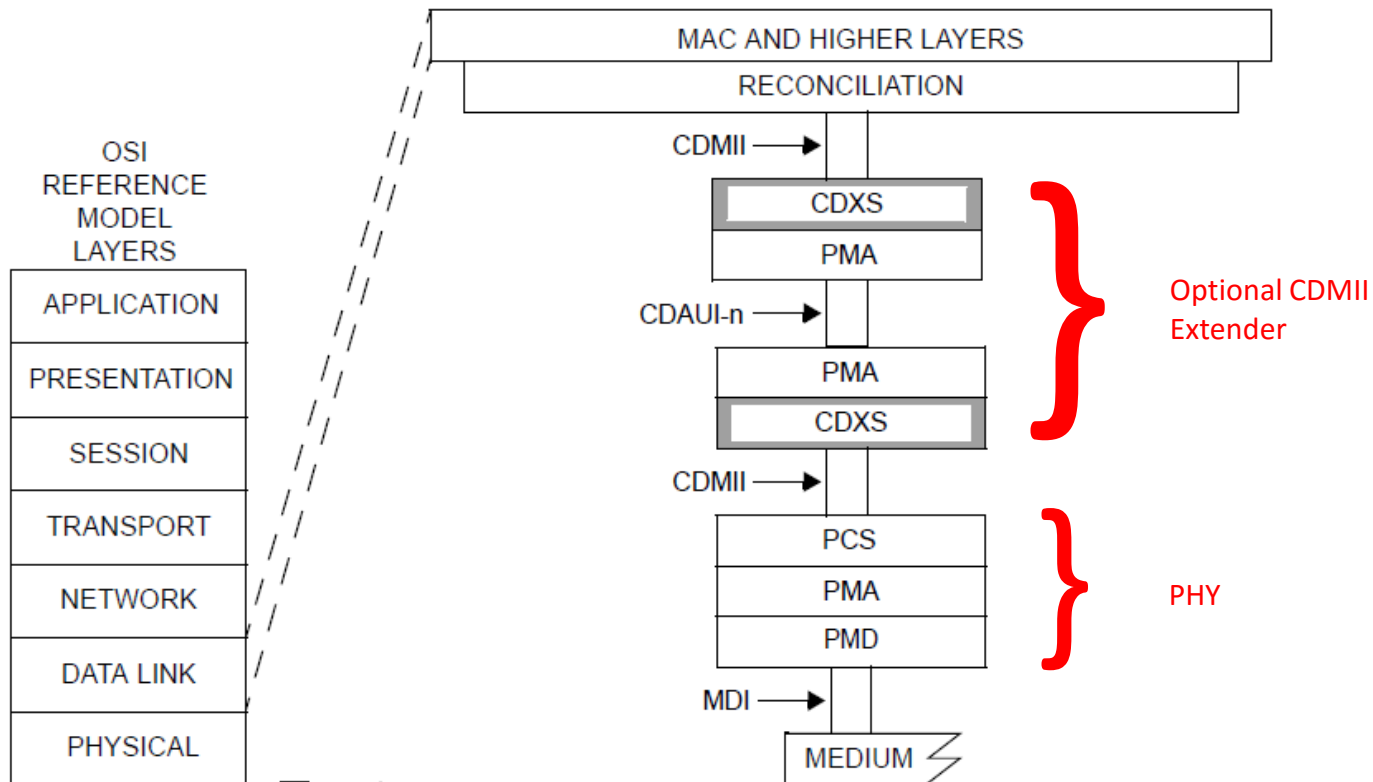
118.1 Overview

This clause defines the functional characteristics for the optional CDMII Extender and CDMII Extender Sublayer (CDXS). Figure 118–1 shows the relationship of the CDMII Extender and CDXS sublayer with other sublayers to the ISO Open System Interconnection (OSI) reference model.

The CDMII Extender is composed of a CDXS at the RS end, a CDXS at the PHY end with a physical instantiation of CDAUI-n between two adjacent PMA sublayers. Its purpose is to allow the extension of the CDMII to the PCS via a physical instantiation.

The CDMII Extender with the optional Energy-Efficient Ethernet (EEE) capability (see 78.3).... NEED OTHER TEXT??

Update Figure 118-1



CDAUI-n = 400 Gb/s n-LANE ATTACHMENT UNIT INTERFACE

CDMII = 400 Gb/s MEDIA INDEPENDENT INTERFACE
 CDXS = CDMII EXTENDER SUBLAYER
 MAC = MEDIA ACCESS CONTROL

MDI = MEDIUM DEPENDENT INTERFACE
 PCS = PHYSICAL CODING SUBLAYER
 PMA = PHYSICAL MEDIUM ATTACHMENT
 PMD = PHYSICAL MEDIUM DEPENDENT

Proposed Text

118.1.1 Summary of major concepts

The following is a list of the major concepts of CDMII Extender:

- a) Simple signal mapping to the CDMII
- b) The optional CDMII Extender can be inserted between the Reconciliation Sublayer and the PHY to transparently extend the physical reach of the CDMII to the PCS Sublayer
- c) Independent transmit and receive data paths
- d) The CDXS leverages all functions in the Clause 119 PCS and supports physical instantiations of CDAUI-n with adjacent Clause 120 PMA sublayers.
- e) Optionally extend LPI signaling to PHY for EEE

Proposed Text

118.1.2.1 CDXS Sublayer (CDXS)

The CDXS is identical in function to Clause 119 PCS.

118.1.2.2 CDAUI-n

A CDMII Extender may use any of the following physical instantiations of CDAUI-n.

- CDAUI-16 Chip-to-Chip (Annex 120B)
- CDAUI-16 Chip-to-Module (Annex 120C)
- CDAUI-8 Chip-to-Chip (Annex 120D)
- CDAUI-8 Chip-to-Module (Annex 120E)

Add layer diagrams illustrating each width

Management

- Need to provide management / register functions in Clause 45 with appropriate pointers in Clause 118.
- Reference 119.3 for example of necessary management functions.

Other Modifications

- Suggest removing examples of CDAUI-n layering diagrams for CDMII Extender from CDAUI Annexes
 - Fig 120B-1
 - Fig 120D-1
- In all layer diagrams in 120 Annexes: Change “PCS” to “400GBASE-R PCS”

Thank You