

P802.3bs Nomenclature

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Introduction

There has been some debate as to whether the nomenclature in the P802.3bs project that includes letters based on Roman numerals CC for 200 and CD for 400 should be changed to make it easier to understand.

There was a straw poll (#3) and a motion (#4) in the Whistler meeting related to this topic. See next pages.

The purpose of this contribution is **not** to endorse any approach or to debate which nomenclature should be chosen, but to clarify what the alternative nomenclature would be if it was to be adopted.

Previous documents:

[anslow_3bs_01_0315 page 7](#)

[lusted_3bs_01_0315](#)

[P802.3 D1.2 comments #25 and #26](#)

Straw poll from the Whistler meeting

Straw poll #3 in the Whistler meeting showed very strong support for keeping the naming consistent between 200 Gb/s and 400 Gb/s. In other words, if the naming for 200G is changed, the 400G names should be changed also.

Straw Poll #3

A consistent nomenclature (e.g. CCMII / CDMII or 200GMII / 400GMII, CCAUI / CDAUI or 200GAUI / 400GAUI, etc) should be selected for implementation in IEEE P802.3bs.

Yes: 55, No: 1, Abstain: 0

Motion from the Whistler meeting

Motion #4 Move:

- Use existing roman numeral based nomenclature (i.e. CC or CD) for generation of Draft 1.4
- Pre-submit Draft 1.5, with nomenclature based on Roman numbers, for consideration to proceed to WG Ballot
- Direct editorial team to create two “candidate” versions of Draft 2.0, one version with nomenclature based on Roman numbers and one version based on Arabic numbers.
- Discuss nomenclature @ July 2016 IEEE 802 Plenary and resolve which “candidate” version (nomenclature is based on Roman or Arabic numbers), and present the selected version for consideration to proceed to go to WG Ballot

Yes: 53, No: 0, Abstain: 0

P802.3bs D1.4 Roman numeral related names

P802.3bs draft 1.4 contains the following names that are related to the Roman numerals CC for 200 and CD for 400:

CCMII for the ***200 Gb/s Media Independent Interface (and Extender)***

CCXS for the ***200 Gb/s Extender Sublayer***

CCAUI-n for the ***200 Gb/s Attachment Unit Interface***

CCAUI-4 for the ***200 Gb/s four-lane Attachment Unit Interface***

CCAUI-8 for the ***200 Gb/s eight-lane Attachment Unit Interface***

CDMII for the ***400 Gb/s Media Independent Interface (and Extender)***

CDXS for the ***400 Gb/s Extender Sublayer***

CDAUI-n for the ***400 Gb/s Attachment Unit Interface***

CDAUI-8 for the ***400 Gb/s eight-lane Attachment Unit Interface***

CDAUI-16 for the ***400 Gb/s sixteen-lane Attachment Unit Interface***

Names in the base standard

The IEEE 802.3 base standard contains:

GMII for the ***Gigabit Media Independent Interface***

XGMII for the ***10 Gigabit Media Independent Interface***

XLGMII for the ***40 Gb/s Media Independent Interface***

CGMII for the ***100 Gb/s Media Independent Interface***

XAUI for the ***10 Gigabit Attachment Unit Interface***

XLAUI for the ***40 Gb/s Attachment Unit Interface***

CAUI-n for the ***100 Gb/s Attachment Unit Interface***

CAUI-4 for the ***four-lane 100 Gb/s Attachment Unit Interface***

CAUI-10 for the ***ten-lane 100 Gb/s Attachment Unit Interface***

Names in draft amendments

P802.3by draft 3.2 (on the 29 June RevCom agenda) contains the following names:

25GMII for the ***25 Gigabit Media Independent Interface***

25GAUI for the ***25 Gigabit Attachment Unit Interface***

P802.3cd adopted the following names in the Whistler meeting:

50GMII for the ***50 Gigabit Media Independent Interface***

50GAUI for the ***50 Gigabit Attachment Unit Interface***

Candidate non Roman numeral related names

If there is agreement to change the names on page 5 it is proposed to change them to:

200GMII for the ***200 Gb/s Media Independent Interface (and Extender)***

200GXS for the ***200 Gb/s Extender Sublayer***

200GAUI-n for the ***200 Gb/s Attachment Unit Interface***

200GAUI-4 for the ***200 Gb/s four-lane Attachment Unit Interface***

200GAUI-8 for the ***200 Gb/s eight-lane Attachment Unit Interface***

400GMII for the ***400 Gb/s Media Independent Interface (and Extender)***

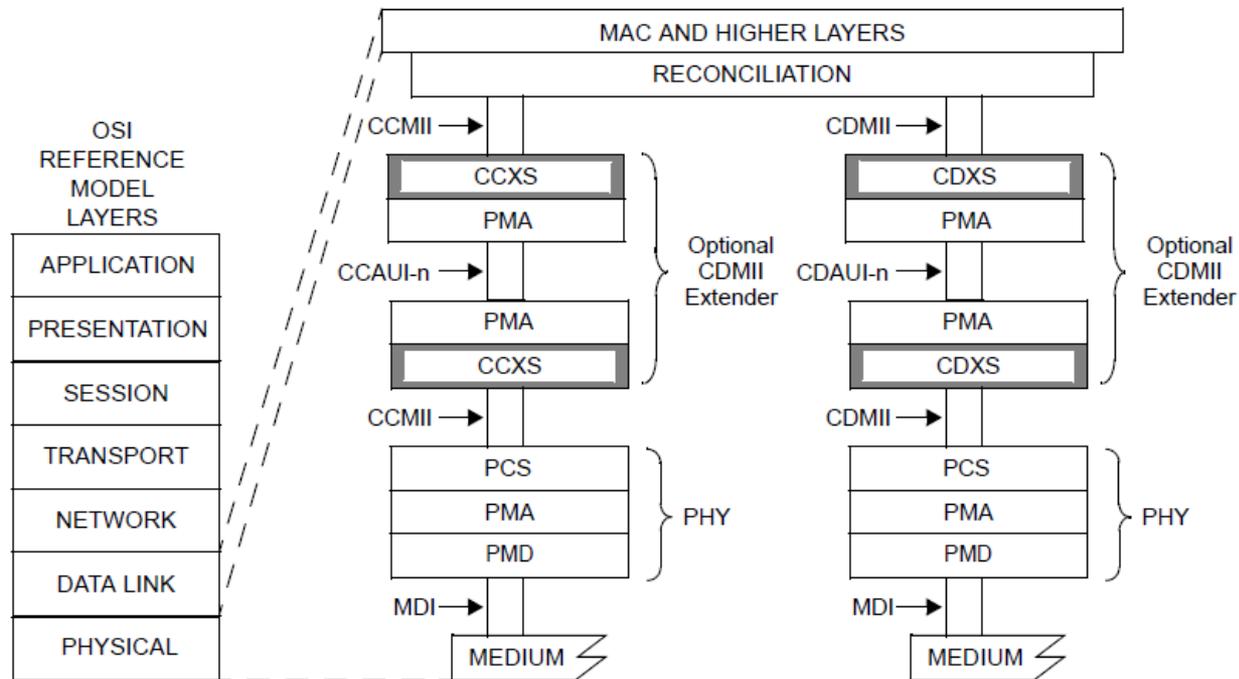
400GXS for the ***400 Gb/s Extender Sublayer***

400GAUI-n for the ***400 Gb/s Attachment Unit Interface***

400GAUI-8 for the ***400 Gb/s eight-lane Attachment Unit Interface***

400GAUI-16 for the ***400 Gb/s sixteen-lane Attachment Unit Interface***

Example diagram from current draft



CCAUI-n = 200 Gb/s n-LANE ATTACHMENT UNIT
INTERFACE

CCMII = 200 Gb/s MEDIA INDEPENDENT INTERFACE

CCXS = CCMII EXTENDER SUBLAYER

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

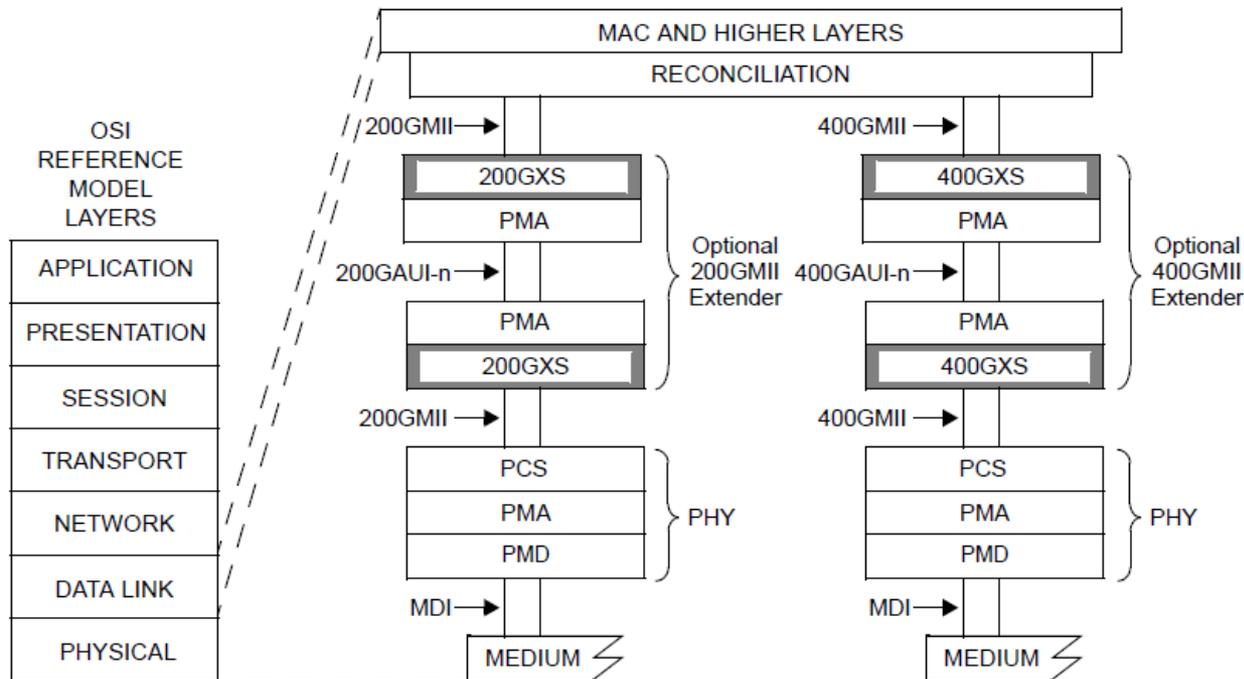
PCS = PHYSICAL CODING SUBLAYER

PMA = PHYSICAL MEDIUM ATTACHMENT

PMD = PHYSICAL MEDIUM DEPENDENT

Figure 118-1—CCXS and CDXS relationship to the ISO/IEC Open System Interconnection (OSI) reference model and the IEEE 802.3 Ethernet model

Example diagram with alternative names



200GAUI-n = 200 Gb/s n-LANE ATTACHMENT UNIT
INTERFACE
200GMII = 200 Gb/s MEDIA INDEPENDENT INTERFACE
200GXS = 200GMII EXTENDER SUBLAYER
400GAUI-n = 400 Gb/s n-LANE ATTACHMENT UNIT
INTERFACE
400GMII = 400 Gb/s MEDIA INDEPENDENT INTERFACE

400GXS = 400GMII EXTENDER SUBLAYER
MAC = MEDIA ACCESS CONTROL
MDI = MEDIUM DEPENDENT INTERFACE
PCS = PHYSICAL CODING SUBLAYER
PMA = PHYSICAL MEDIUM ATTACHMENT
PMD = PHYSICAL MEDIUM DEPENDENT

Figure 118-1—200GXS and 400GXS relationship to the ISO/IEC Open System Interconnection (OSI) reference model and the IEEE 802.3 Ethernet model

Thanks!