

**IEEE P802.3cn Task Force:**  
50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s  
over Single-Mode Fiber and DWDM

**Proposed Draft Structure: IEEE P802.3ct**

John D'Ambrosia,  
Chair, IEEE P802.3cn Task Force  
Futurewei, Subsidiary of Huawei  
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# Introduction

- This presentation provides an overview to address the creation of a draft to address the IEEE P802.3ct objectives
  - [http://www.ieee802.org/3/cn/proj\\_doc/3ct\\_Objectives\\_181113.pdf](http://www.ieee802.org/3/cn/proj_doc/3ct_Objectives_181113.pdf)
- The draft structure proposed in this presentation is pending approval of the IEEE P802.3ct PAR by the IEEE-SA Standards Board [anticipated – Feb 2019]

# Initial Steps

- Modification to the following clauses
  - Clause 1 – Introduction
  - Clause 30 - Management
  - Clause 45 - Management Data Input/Output(MDIO) Interface
  - Clause 78 - Energy-Efficient Ethernet (EEE)
  - Clause 80 - Introduction to 40 Gb/s and 100 Gb/s networks
  - Clause 116 - Introduction to 200 Gb/s and 400 Gb/s networks

# 80 km 100 GbE Objective

- The physical layer specification is named 100GBASE-ZR
- Not similar to any other IEEE 802.3 specifications
- Define channel model
- Work on specification methodology is necessary
- New PCS / FEC / PMD sublayers
- PMA sublayer may leverage
  - existing PMA sublayer
  - shared common PMA sublayer between both objectives
  - objective specific PMA sublayer
- Anticipating new CGMII Extender
- Define Tx Metrics

# 80 km 400 GbE Objective

- The physical layer specification is named 400GBASE-ZR
- Not similar to any other IEEE 802.3 specifications
- Define channel model
- Work on specification methodology is necessary
- New PCS [FEC] / PMD sublayers
- PMA sublayer may leverage
  - existing PMA sublayer
  - shared common PMA sublayer between both objectives
  - objective specific PMA sublayer
- Define Tx Metrics