Draft consensus presentation on Terminology around DWDM

Peter Stassar, Huawei

IEEE P802.3ct Task Force, Terminology Ad Hoc Call, 16 February 2021

Consensus presentation on terminology around DWDM

Peter Stassar (Huawei), Pete Anslow (Independent), John d'Ambrosia (Futurewei), David Law (HPE), Gary Nicholl (Cisco), Steve Trowbridge (Nokia), Tom Huber (Nokia), Eric Manilof (Ciena)

IEEE P802.3ct Task Force, Interim Teleconference Call, 18 February 2021

Introduction

During the interim teleconference meetings on 28 January and 4 February 2021 4 presentations were given on terminology around DWDM systems, stassar_3ct_01_210128, stassar_3ct_01_210204, and dambrosia_3ct_01_210204.

During 2 ad hoc calls on 12 and 16 February the authors developed this consensus presentation with a recommendation to the Task Force to use it as a basis for creating responses to comments and proposed remedies to P802.3ct D3.1.

What do we have so far in D3.1

- **1.4.160a black link**: A multi-channel link specified using a methodology where the input, output, and transfer characteristics of the uni-directional transmission path between TP2 to TP3 for a given DWDM channel are specified, without specifying how the transmission path is implemented. (See, for example, IEEE Std 802.3, Clause 154, Figure 154–3)
- **1.4.237a DWDM channel**: The transmission path between a DWDM PHY transmitting to another DWDM PHY.
- **1.4.237b DWDM link**: One DWDM PHY transmitting to one other DWDM PHY through the transmission path between them.
- **1.4.237c DWDM PHY**: An Ethernet PHY that is capable of running over one DWDM channel in each direction of transmission.
- **1.4.237d DWDM** system: An aggregate of DWDM links optically multiplexed and demultiplexed onto and off either a single optical fiber or a single optical fiber per direction.

Consensus proposal on terminology to ct Task Force

- Removal of definitions for "DWDM system" and "DWDM link"
- Merging terms "DWDM link" and "black link" into "DWDM black link".
- Maintain definition for "DWDM PHY".
- Definition for "DWDM black link": DWDM black link: An aggregate of pairs of DWDM channels supporting one or more full-duplex connections
- Modify definition for "DWDM channel" to: DWDM channel: The transmission path from a transmitting DWDM PHY (TP2) to a receiving DWDM PHY (TP3)
- Modify definition for black link to: "black link approach: The specification of the input, output, and transfer characteristics of the uni-directional transmission path from TP2 to TP3 for a given DWDM channel within a DWDM black link, without specifying how the transmission path is implemented. (See, for example, IEEE Std 802.3, Clause 154, Figure 154–3)"

Related to Figure 154-3

TBD

Thanks!