### **COMMITTEE T1 – TELECOMMUNICATIONS** T1X1.5

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### **CONTRIBUTION TO T1 STANDARDS PROJECT**

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PROJECT Optical Hierarchical Interfaces

### **ABSTRACT**

This document contains the slide presentation for T1X1.5/2001-099.

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# Detecting and Correlating External Path-Related Faults By Cohesive OXC and DWDM Protocols (ANSI T1X1.5/2001-099)

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## Outline

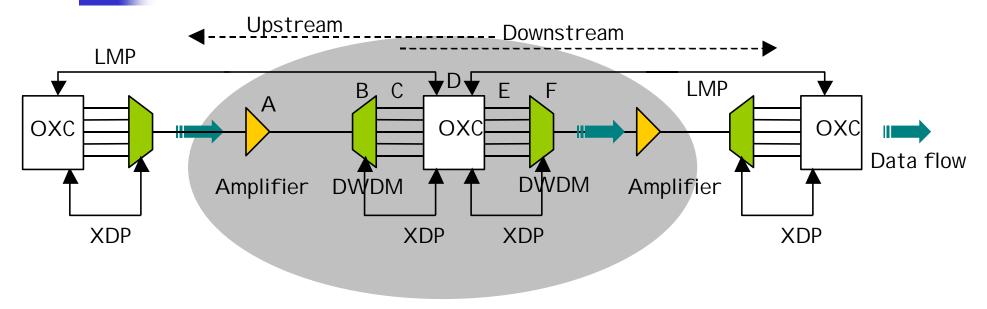
- Why do we need OXC-DWDM Protocol (XDP)?
- Requirements
- Conclusions

April 4, 2001





# Why Do We Need OXC-DWDM Protocol?



To communicate electrical faults to optical crossconnects

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# Requirements

- Control channel management
  - Negotiate: Configuration, monitoring, support features
- Monitoring requirements
  - Types: Event-driven, polled
  - Per  $\lambda$  monitoring, per group monitoring ( $\lambda$ , DWDM)
    - How about generalizing OSC and terminating on OXC?
- Fault analysis
  - Group error/ degradation correlation and reporting
  - Individual error reporting





## Conclusions

- OXC- DWDM protocol is important
  - For fault analysis
  - Faster error recovery times
- Should negotiate
  - Configuration correlation
  - Monitoring support such as Fiber, DWDM, Bundles Others
  - Feature support such as LOL, LOF behavior
- Monitoring should be
  - Event-driven
  - Polled
  - Periodic report

April 4, 2001 5