

Session 102: Intelligent Optical Transport Network Development and Deployment: Current Status and Future Outlook

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Session description (1/2)

- Intelligent optical transport networks are expected to generate new revenue generating services such as bandwidth-on-demand, and to provide brand-new control mechanisms such as sophisticated protection and restoration schemes. Control planes such as GMPLS are a key technology for intelligent optical transport networks. Standardization of control planes has made remarkable progress recently in the area of TDM and WSON. As a result, product development, such as on network elements and network management systems, has steadily progressed. And at last commercial products have been deployed to build real intelligent optical transport networks.

Session description (2/2)

- This workshop will explore the current status and the future outlook of the intelligent optical transport network. First we will review the current status of the following areas: (1) standardization development, (2) network deployment in carrier and academic networks, and (3) product development such as network equipment and network management systems. Then we will discuss what we have learned from the past experience and the future outlook for these areas.

Discussion Hints

- Role of control plane
 - What are killer applications? New service (e.g., BoD), New feature (e.g., dynamic recovery), Multi-vendor interoperability, etc...
 - What are barriers for control plane deployment? Migration from the legacy management systems, Familiarity of operating unit, etc...
- What we have learned from the past deployment.
 - Why the intelligent optical transport network was deployed?
 - The objective was achieved? Any issues?
 - What do we still need to develop?
- Future direction of transport technologies
 - OTN : Is ODU XC ready?
 - WSON: Is ROADM flexible enough (e.g., colorless, directionless)?
 - Packet Transport: Is MPLS-TP ready to replace traditional transport equipments?
 - Packet + Optical Integration: Network architecture, Pros&Cons (e.g., CAPEX/OPEX),
- Role of standardization & interoperability
- ...

Enjoy the session!