Power Utility Major Achieves Enhanced Resiliency in Metro WDM Network with Tejas GMPLS WSON Solution

The customer is one of the India's largest utility companies with a country wide optical network. The company delivers bandwidth and connectivity services to ISPs, government agencies, defense, enterprises and supports Government of India projects like National Knowledge Network, BharatNet etc.

Given the criticality of the network, the customer wants state of the art and cost-effective network resiliency in its Metro Core networks.

Challenges

- Automated discovery of network and dynamic re-routing of optical lambdas in case of failure
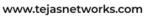- Sub 50ms switching time

Solutions

- TJ1600 OTN/ DWDM systems with GMPLS WSON control plane
- Tejas NMS for end-to-end manageability
- The solution supports constraint-based routing, finding the lowest cost path that meets all specified constraints
- The routing algorithm supports several constraints including Link disjoints, Node disjoints, Bandwidth, Node excludes, SRLG, Latency, Optical impairments

Results

- Tejas GMPLS WSON was enabled on TJ1600 platforms supporting 100G+ live traffic in key Metro WDM networks
- Service class: 1+R as per customer requirement with sub 50ms switching time; Other options available: 1+0, 1+1+R, 1+1+F
- Automated discovery of network topology – Nodes, Links, Connectivity matrix
- Automated discovery of network resources – Network Element (NE), Link properties, Optical parameters

- The on-the-fly dynamic provisioning and management of Lambdas

Key Value Propositions

- Automatic reconfiguration and routing of circuits in response to network faults in a deterministic manner

- Routing and Wavelength Assignment (RWA) feature enables assignment of wavelengths and routing of light-paths with optimum network resources usage

- SLA management with various service classes providing different restoration and back-up combination

- Capitalize on the efficiency of colorless and directionless ROADMs for switching and reduce the number of wavelengths and transponders resulting in cost savings in the Layer 0 DWDM

- For higher-layer equipment such as cross-connects and routers, fewer ports are needed, leading to substantial day 0 savings

Tejas Networks

Tejas Networks is a global broadband, optical and wireless networking company, with a focus on technology, innovation and R&D. Tejas' carrier-class products are used by telecom service providers, utilities, government, and defence networks in 75+ countries. To know how we can help you fulfill your business objectives, contact us today!

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