RailTel Builds DWDM/ OTN Backbone Network using Tejas TJ1600 Converged Platform

Indian Railways is one of the largest rail networks of the world covering 68,000 km route and carrying 8 billion+ passengers every year.

RailTel, the network infrastructure arm of Indian Railways is one of the largest telecom infrastructure providers in the country owning a Pan-India optic fiber network. Its network is utilized for several projects of national interest such as National Knowledge Network, Bharat Net as well as by critical Government and Enterprise customers.

Due to the exponential data demand, RailTel needed to enhance the core DWDM backbone capacity. It was looking for a robust future-proof solution from a trusted technology partner to fulfill its requirements.

Challenges

- Pan-India network build – both new routes as well as alien channels on 3rd party equipment
- Need right sized solutions for different capacity requirements
- Interoperability with existing network system

Solutions

- Tejas TJ1600 family of versatile DWDM/ OTN solutions offering from 2.4 Tbps to 10 Tbps Shelf capacity
- Flex-grid ROADM based network with 100G & 200G Line Rates
- 100G/ 200G alien wavelength on existing different OEMs
- Tejas Alien Cloud Simulator (TACS), a unique Alien Wave design toolkit helps to create precise deployment plan
- Tejas NMS for end-to-end manageability

Results

- Tejas worked with RailTel and demonstrated the solution through a POC set-up between the 2 major cities of Mumbai and Pune

- On successful demonstration, full-scale solution was deployed - spread across India including 15 states and 230+ sites

- The network caters to diverse application requirements for Enterprise, Datacenter, CSPs and Government Bodies

- Significant capex savings through alien wave solution on 3rd party equipment

Key Value Propositions

- A range of DWDM/ OTN platforms supporting from 100 Gbps to 1.2 Tbps Line rates and supporting multiple client traffic types

- Unified network management using Tejas NMS

- Proven interoperability for a number of global optical OEMs

- Sub wavelength traffic grooming

- Seamless integration on a 3rd party DWDM network without guard band

- Alien Cloud Simulator: In-house network feasibility study tool to simulate and evaluate the network prior to deployment

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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