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## Case study of a Global giant telecom operator : in Top 10

### ***Need of the customer:***

To build Pan India DWDM network of 10g system of a fibre route more than 20000 Km. The business need is to provide one of the most resilient protected economical GMPLS Based 10g DWDM with MD-ROADM to cater the needs of :

- A. Service Major enterprise customers on capacities like 1G, 2.5G at lowest cost and perfect protection to match 99.99 % SLA.
- B. Meeting the expanding Voice traffic needs and mitigating the reduction in ARPU ( Average revenue per user )
- C. Create a homogenous back haul system for Mobile infrastructure.
- D. A unique compliant NMS with perfect management by operation team.

### ***What UTL offered?***

UTL 10G DWDM system merged with 2.5G WDM on access side offered best network design and link design amongst all contenders. Creating 1/n protection system and customized approach for traffic management yielded one of the best stable networks for end customer. UTL designed high gain amplifiers in a way to mitigate any fluctuation on optical parameters and MD-ROADM brought additional resilience.

UTL designed a robust link level network considering all fibre parameters. Minute values of PMD, CD etc are built to link planning. UTL WDM with its inherent feature of non regeneration long haul DWDM parameters created links with minimum cards and maximum protections. The Optical supervisory channels were designed in UTL DWDM system which are rugged and resilient and uses the sideband. This gave an enhanced DCN network for unmatched network monitoring at all times.

### ***Deployed solution :***

The network got deployed in record time with more than 5000 nodes. This is one of the biggest DWDM network in India and world.

The main features of deployed solution are :

- 10G line side interfaces and customer interfaces are at 1G and 2.5G till 10G level.
- The network is mixture of metro and long haul solution.
- There self healing rings on start topology and express traffics on mesh topology.
- Links are deployed of lengths more than 800km without regeneration to carry long haul traffic.
- Multiple ROADM locations are created to ensure system & traffic protections.

### ***Advantages to end customer:***

This network built by UTL on UTL WDM system had unique advantages listed as below but not limited :

- A. A TEC compliant 10G 40 Channel system upgradable to 80 Channel with 8D ROADM and GMPLS.
- B. Truly long haul system which optimized the cost for expansion.
- C. The UTL DWDM provided on field 1000 Km links without any regeneration.
- D. Un matched service and support with zero SLA violations.
- E. Provided Fastest ROI and best TCO