Tejas Delivers a High-Capacity Multi-Country Optical Backbone for a Major International Sporting Event

A leading global communications service provider was tasked with building a robust and high-capacity network to support a major international sporting event held in Europe. The event required high-capacity, and real-time data exchange to support large-scale broadcast operations and ensure uninterrupted coverage for global audiences.

To address these requirements, the service provider decided to deploy a purpose-built optical transport network connecting key locations across three countries, including a dense metro aggregation layer in a major European city. The network would combine owned fiber infrastructure with leased capacity to create a resilient multi-terabit backbone capable of supporting dynamic traffic patterns during the event.

Challenges

- Designing and deploying a high-capacity optical network within tight timelines to support a large-scale, time-bound international event
- Meeting stringent requirements for reliability and service continuity for live broadcast applications
- Ensuring seamless connectivity across multiple countries with a mix of owned fiber and leased infrastructure
- Enabling unified visibility and management across a heterogeneous transport environment

Solutions

- Tejas TJ1600 DWDM optical transport solution was selected for the multi-country deployment by the service provider
- The deployment leveraged high-capacity coherent optical technologies supporting a mix of 400G, 200G, and 100G wavelengths to build a scalable multi-terabit backbone
- Integrated resiliency, monitoring, and unified management enabled reliable operations, real-time network visibility, and seamless service provisioning across both fiber and leased infrastructure

Results

- Successfully delivered a high-performance optical backbone supporting approximately 2.8 Tbps of traffic, ensuring smooth execution of large-scale broadcast operations
- Enabled reliable and low-latency transmission of live video feeds and data across multiple countries, enhancing the overall viewing experience for global audiences
- Advanced protection switching mechanisms enabling automatic traffic rerouting across multiple pre-engineered paths in the event of failures, ensuring near-instant service restoration and high availability
- Integrated OTDR (Optical Time Domain Reflectometry) capabilities provided real-time fiber monitoring and precise fault localization, significantly reducing troubleshooting time
- A unified management framework enabled end-to-end service provisioning and monitoring across both owned fiber and leased capacity, ensuring operational visibility and control

Key Value Propositions

- Proven capability to deliver large-scale, mission-critical networks with stringent performance requirements
- Comprehensive portfolio spanning the full network stack—from advanced optical and broadband solutions to wireless and satellite-IoT, enabling end-to-end network deployments
- Field-proven DWDM platforms for multi-terabit transport supported by advanced protection and monitoring for resiliency and real-time visibility

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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