



Customer

One of the leading global data center providers

Challenge

Customer needs an efficient solution that can

- Handle traffic variability without over-engineering
- Ensure reliable and on-demand access to end customers
- Support additional capacity without significant investment
- React quickly to 'On-demand' nature of service requests
- Handle big data through effective load balancing features

Solution

- TJ1400 is a versatile and compact aggregation platform used for small data centers, that can deliver both traditional TDM and premium data services
- TJ1600 is a core network platform used for large data centers, that integrates multiple technologies in one platform with best-in-class density and feature set
- Unified and multilayered network management using TJ5500 NMS



A leading International Data Center provider selects Tejas Optical products for Cloud Connectivity

Introduction

The customer is a leading provider of data center services for Fortune 500 companies. The customer intends to inter-connect all its existing and upcoming data centers using a high capacity, Intelligent Optical Network (ION) which meets the stringent latency, reliability, scalability, and service velocity expectations of its clients. There is serious competition from larger telecom rivals who are leveraging their extensive fiber networks to target the same segment.

Key Challenges

The customer faced several challenges in deploying the first-ever ION network

1. **Big Data:** The network should have sophisticated 'load balancing' features to handle today's mega datasets and massive petabyte-scale file transfers.
2. **Network Resilience:** The network should be constantly alert to adverse changes in quality of experience and instantly 'self-heal' through pro-active re-routing of traffic from congested or deteriorated links before an actual network failure.
3. **Scalability:** The network should support additional capacity without the need for large investments or massive rewiring.
4. **Bandwidth-on-Demand:** The network should react fast enough to the 'on-demand' nature of service requests on the customer's datacenter network.
5. **Network Flexibility and Management:** The network should ensure optimal bandwidth allocation during traffic fluctuations and heavy bandwidth requirements without over-engineering. It should also handle variability in terms of service granularities (64 kbps to nx10GE) and types of services required at different network locations.

Tejas Networks Solution

Tejas' solution involves deployment of Tejas packet optical family of products which comprises an end-to-end packet transport network including i) TJ1400 – for small datacenters needing 10G speeds, ii) TJ1600 – for large datacenter interconnect

needing 100G speeds, and iii) TJ5500 – the unified Network Management System.

- i. TJ1400 is a versatile, yet compact platform that can cost-effectively connect small data centers requiring 10G speeds. TJ1400 is one of the first products in its class to seamlessly bridge voice and packet worlds with support for MSPP, POTP, and PTN configurations on the same chassis. The platform supports advanced packet transport standards in Carrier Ethernet, MPLS-TP, IP, and OTN areas. It can optimally serve transport needs for data centers, wireless backhaul, enterprise, and wholesale service delivery.
- ii. TJ1600 integrates SDH, OTN, C/DWDM, and Carrier Ethernet technologies in one platform with best-

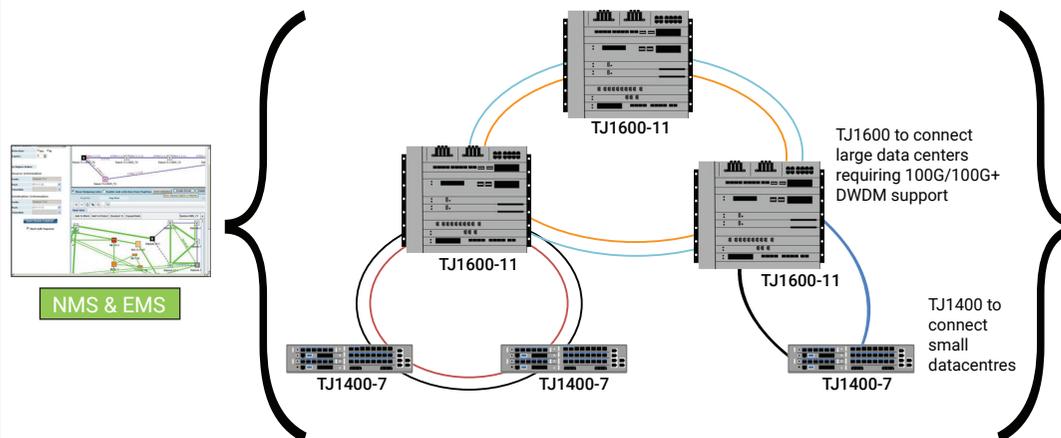


Results

- Phase 1 of the project involved successfully interconnecting all data centers within a city
- Tejas Networks was selected for phase-2 of the project that involved expansion and interconnection of datacenters spread across 3 locations in US and Mexico

“We are pleased to offer our innovative Tejas packet optical family for enabling high bandwidth data center and cloud connectivity for a leading global data center provider. We have fully met customer expectations in terms of deployment time, latency, quality, scalability, reliability, and support.”

-Mr. Arnob Roy,
COO, Tejas Networks



in-class density and feature set. TJ1600 can cost-effectively connect large data centers requiring 100G DWDM support. It enables extensive reuse of chassis commons, service cards, traffic slots, and interfaces during network upgrades or modernization.

- iii. Tejas TJ5500 Network Management System is a unified, multilayered management platform with full FCAPS functionality for the complete range of Tejas products and technologies.

Why Tejas Networks

After a thorough technical and commercial evaluation, the customer selected Tejas'

packet transport solution as the best fit for their application needs. The key benefits offered by Tejas Solution are:

Network Resilience and Speed: Tejas products combine sub-50ms 1+1 protection switching with 100-300ms fast rerouting of traffic using ASON/GMPLS control plane thereby delivering bandwidth efficiency, superior network resilience, and lower latency.

Scalable: Tejas products support up to 96 high speed DWDM channels at 10G and 100G/100G+ rates in a small compact form factor. This ensures that the customer's cloud data center infrastructure can be fully leveraged and monetized in a cost-effective manner. The network is very flexible and

allows easy addition of new data centers.

Multilayer Transport: MPLS-TP and OTN provides low-latency, low-cost bypass at Layer 2 compared to expensive IP routing at higher layers. Similarly, multi-degree ROADM support enables cost-effective optical layer bypass (Layer 0) and for building cost-effective IDC networks.

Sophisticated Quality of Service: Tejas products support multi-level Hierarchical QoS (HQoS) with advanced traffic management features such as congestion-based service prioritization and granular hardware-based performance counters for real-time billing and monitoring of service parameters like latency, jitter, etc. They also ensure faster centralized restoration of circuits with simultaneous fiber-cut protection. These features are especially useful for delivering premium SLA-driven services.

Results

Tejas Networks successfully completed the first phase of interconnection of datacenter and cloud networks through optical fiber for a US city. The customer has selected Tejas for phase-2 expansion which will start by mid of 2019.



Software Enabled Transformation

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