

Epsilon Telecommunications

Ethernet, SDH and Wavelength Services

Optical Bandwidth Consumption Booms

With capacity reserved on 22 subsea networks spanning North America, Europe and Asia Pacific, Epsilon provides its 400 international service provider customers with capacity and managed inter-connection services. Epsilon refers to its network as a “carrier-neutral interconnect platform” - essentially connecting multiple customers to a single optical switch and hooking them up to local networks and resources. The network is managed from two operating centers (NOCs) in Singapore and London.

To manage the demand in growth, Epsilon’s requirements were two-fold: manage the demand for 1Gbit/s, 2.5 Gbit/s and 10Gbit/s services in metro markets, and reduce the cost of ownership of real estate, power consumption and fiber utilization to allow new wavelengths to be turned on quickly and easily, and new services to be provisioned simply and affordably.



Ethernet, SDH and Wavelength services



- **Industry:** Wholesale Carrier
- **Geography:** Global
- **Service Portfolio:** Ethernet, SDH and Wavelength services

Challenges

As demand for optical, packet and wavelength services for customers throughout Singapore, Hong Kong, Malaysia and Indonesia increased, Epsilon looked for a flexible and rapid interconnect platform that would ensure its metro network could support these services quickly and efficiently.

Products

- BTI 7000 Series
- Dynamic Optical Layer
- proNX™ Service Manager

Solution

- Simple Ethernet connectivity for local network interoperability
- Flexible service bandwidth—from 100 Mbps to 10 Gbps—to address all customer requirements
- On-demand service and network bandwidth scaling with Carrier Ethernet and WDM underpinning
- Simplified network, ease of management, operational efficiencies—expedited customer requests

BTI's Dynamic Optical Layer brings together ROADM-on-a-Blade and DWDM Line Amplifier modules with an Intelligent Control System that automatically monitors and adjusts the optical layer to meet changing demands. This makes it easy for service providers like Epsilon to instantly deploy wavelength services with improved optical performance and scalability.

“ This is a pioneering project. With BTI Systems, we have gained a strong and competent partner in helping us to make optimal use of our network resources to establish connections for our customers in a market where bandwidth consumption for optical services is exploding faster everywhere around the world.”

George Szlosarek, CTO of Epsilon Telecommunications

Innovation at the Optical Layer

Epsilon sought to innovate at the optical layer, to remove the operational complexity in metro networks. This would allow it to focus more on customers' services and less on characterizing optical performance.

CTO, George Szlosarek, said there were only three viable options to explore-- BTI Systems™, Cyan Inc. and Transmode Systems AB. Having assessed the market and discussed requirements, it didn't take long to decide he was sticking with existing metro optical supplier BTI.

“Its feature set is unsurpassed, it's incredibly responsive to requirements and its equipment is incredibly reliable,” says Szlosarek, who claims that in the past six years of having BTI products in his metro rings he hasn't seen “a single card failure.”

With a focus on creating high-capacity, application-aware service infrastructures for the metro, BTI Systems worked closely with Epsilon to shape and define the industry leading interconnect requirements for this project. This collaboration was instrumental in the development of BTI's Dynamic Optical Layer technologies. Having played an important role in the definition of BTI's Dynamic Optical Layer – launched in August 2011 – Epsilon has now completed the world's first deployment of this next generation solution, creating a flexible metro network to deliver services through its Singapore Hub.

Lead Deployment of Dynamic Optical Layer

Szlosarek and his team have deployed BTI's Dynamic Optical Layer ROADM and DWDM amplifier capabilities in its Singapore network. With over 10 wavelengths already lit, plans to upgrade its London metro with the same technology early in 2012 are well underway.

Service Flexibility and Rapid Delivery

The Dynamic Optical Layer deployment is providing full wavelength and service flexibility across all of Epsilon's major collocation facilities in Singapore today.

The early results are very encouraging for Epsilon, with the CTO noting that the “ROADM capabilities are making operations very simple now.”

