

CASE STUDY

Rapidly Growing Service Provider Gets Urgently Needed WDM Network Management Capabilities



CUSTOMER NAME NET2EZ

CHALLENGE

- Inadequate diagnostic and management tools
- High cost

SOLUTION

- The Infinera TM-Series and TG-Series optical networking platform
- Transport Network Manager (TNM), the management system of the Infinera TM-Series and TG-Series

RESULTS

- Robust suite of management capabilities
- Stable and trouble free infrastructure
- Responsive design and product support
- Network performance to meet the needs of new markets



Net2EZ Has 7 Datacenters, with 3 Additional Datacenters Planned. They Use Multiple 10 Gb/s and 1 Gb/s Connections Between Sites.



Focused on delivering top notch IT infrastructure, California based Net2EZ runs seven datacenters across the United States, with three additional locations planned. Leading content networks, enterprises and communications service providers rely on the company for uninterrupted operation to support their mission critical applications.

Net2EZ data centers are built to handle the growth of the most demanding high power and high-density requirements. The networks that connect these data centers need to be equally robust.

The Challenges

Net2EZ's growing environment called for a change in their equipment performance, in order to compete with emerging technology and equipment. With a rapidly growing network, they were not able to obtain the management

information they needed – and quickly. They weren't able to tell if equipment was up or down, or how much loss was occurring on a particular wavelength. For example, to ensure that a redundant fiber link was working and that both links were active, someone had to physically check the equipment and make sure the lights were all green.

“The support has been great! I ask a lot of design support questions, especially with this passive project coming up in LA and the Infinera team is very helpful.”

***—Daniel Faubel, Director of
Network Engineering***

Net2EZ chose not to initiate a multi-vendor product evaluation process, but relied on references from similar companies. Another large network service provider referred Net2EZ to Infinera and recommended the company's equipment, emphasizing product stability and cost effectiveness.

The Infinera Solution

Initially, Net2EZ chose to replace two point-to-point 10 Gb/s Ethernet links in Virginia with Infinera TM-Series optical networking products, and are bringing on four additional 10 Gb/s links. Most of their network is 10 Gb/s, and they expect to continue with this cost effective strategy.

Infinera provides a wide range of products to meet specific application needs. The TM-Series is a modular family of coarse wavelength division multiplexing (CWDM) and dense wavelength division

multiplexing (DWDM) carrier-class optical transport products that provide the transport of any service between 100 Mb/s and 10 Gb/s in multi-reach transport applications. The TG-Series is used for passive optical networking. Net2EZ is using the TM-Series and the TG-Series.

For these applications, Net2EZ is using the TM-Series and TG-Series. The TM-Series packet optical networking platform includes several chassis and a wide variety of active DWDM capabilities. In addition to point to point connections, it provides a variety of options for delivering cost efficient service availability, including link aggregation, ring protection, equipment protection and multiple rings.

Net2EZ is using TM-Series 10 Gb/s transponders with forward error correction to provide redundant fiber paths.

The TG-Series passive optical access platform provides an easy way to implement wavelength division multiplexing (WDM), especially in rugged environments, and is typically used to increase capacity in the network, or replace active sites with passive WDM equipment, reducing operating expenses while also increasing capacity.

Net2EZ continues to expand their network in other areas and DWDM technology allows them to increase capacity. For example, Net2EZ has a large network in Los Angeles, connecting three datacenters. They are using dark fiber for the network connections.

By using passive or active DWDM, they can gain additional capacity, avoiding the need for additional dark fiber links, which can be difficult or impossible to obtain in a congested area. Additional capacity will provide growth opportunities for current applications and also allow clients to purchase new services, including 1 Gb/s or 10 Gb/s wavelengths.

Benefits

The Infinera solution immediately provided Net2EZ, with strong network management capabilities. They were able to access detailed information about their network, and eliminate potential failures. “We have redundant fiber between two buildings, and we were having loss issues.

"We've actually never had to take any corrective action because of the equipment itself. It's been rock solid. It's awesome. So we go into the management capabilities just to proactively check things. There's absolutely no reactive action needed."

—Daniel Faubel, Director of Network Engineering

With the TM-Series equipment we are able to tell if we are having problems without actually having to unplug the fiber, and run a fiber tester to figure it out. And, we are able to access our Virginia network and make the diagnosis remotely from Los Angeles. We said to our vendors, "We need you to clean up the fiber and figure out why we're getting this decibel loss." said Daniel Faubel.

They were also able to confirm that the recommendation they received was accurate. The product has been very stable, and even with more features and capabilities, the Infinera solution was 40% less expensive than the previous solution.

The Infinera technology will also improve Net2EZ's ability to penetrate new markets. Net2EZ was recently certified for use by the New York Stock Exchange, and is expanding capacity in New York. For financial

applications, executing trades even microseconds ahead of the competition can mean the difference between making or losing large sums of money.

The TM-Series strong latency performance, measured at four nanoseconds, will have strong appeal to prospective financial clients.

About Infinera

Infinera (NASDAQ: INFN) provides Intelligent Transport Networks, enabling carriers, cloud operators, governments and enterprises to scale network bandwidth, accelerate service innovation and simplify optical network operations. Infinera's end-to-end packet-optical portfolio is designed for long-haul, subsea, datacenter interconnect and metro applications. Infinera's unique large scale photonic integrated circuits enable innovative optical networking solutions for the most demanding networks. To learn more about Infinera visit www.infinera.com, follow us on [@Infinera](https://twitter.com/Infinera) and read our latest blog posts at blog.infinera.com.

About Net2EZ

Founded in 2001 to support the exponential growth of social networking pioneers, Net2EZ continues to power the growth of today's net-centric business with high power, high performance and high value managed data centers.

Leading content networks, enterprises, and communications service providers rely on Net2EZ for uninterruptable operation to support their mission critical application.

Net2EZ data centers are purpose-built to handle the growth of most demanding high power and high-density requirements. With strategic footprint and access to key network interconnection points in North America, Net2EZ Managed Network Services provide site diversity and redundancy for net-centric applications.

More info at www.net2ez.com