

Case Study**Atlantech Online Upgrades with LambdaDriver**

Atlantech Online, a Washington, D.C. regional service provider that serves a customer base of federal agencies and small and large enterprise customers, offers transport services, leased wavelengths, point-to-point circuits, MPLS, datacenter collocation and, as of the beginning of 2006, voice services. As its reputation and its customer base grew, it faced a bandwidth issue and needed to find a cost-effective solution for managing the necessary network expansion. Atlantech decided the most effective way to increase its bandwidth was to better leverage its existing fiber infrastructure with a DWDM solution from MRV Communications.

Background

Atlantech's 300-km Gigabit Ethernet backbone ring connects its three points of presence in Arlington and Ashburn, VA, and Silver Spring, MD, allowing the carrier to offer its services throughout metropolitan Washington D.C. With those three locations, Atlantech has been in business since 1995 and originally built its service using standard time division multiplexing (TDM) and then leased lit fiber services but reached the point at which its growth rate plateaued.

Although it had been a profitable regional carrier since its inception, as Atlantech's reputation and customer base grew, the company needed to expand its network beyond the leased fiber lines that it had started with. Leasing additional lines was not a cost-effective alternative, so it needed another way to expand its network.

At the same time, the company was adding advanced network services like point-to-point connections and storage area networking (SAN) that were of keen interest to its customers, so Atlantech chose to implement a wavelength division multiplexing (WDM) system that would provide the bandwidth and scalability to allow it to offer Fibre Channel over Ethernet (FCoE) capabilities. Atlantech needed to fully leverage its fiber infrastructure and upgrade its data rate as its service offerings expanded to include voice traffic and its growing customer base demanded more bandwidth.

Case Study

MRV Solution

Atlantech chose to leverage its network to maximize bandwidth by implementing the LambdaDriver® modular wave division multiplexing (WDM) system. The LambdaDriver optical transport solutions consist of multi-functional, compact and modular wavelength division multiplexing (WDM) systems that can create up to 80 independent virtual fiber-optic links over a single pair of fibers over distances of up to 900 km.

The Lambda Driver family supports both dense WDM (DWDM) and coarse WDM (CWDM) technology, and can handle data streams with rates from eight Mbps up to 10 Gbps. The Lambda Driver systems are specifically designed for organizations that require flexible, compact and cost-effective multiplexing and transport of high-speed network, storage, voice, and video data.

With its flexible architecture and number of optical networking modules and chassis the LambdaDriver® platform is well suited for both the metro and long haul needs of carriers. In the case of Atlantech, it enabled the service provider to link its three locations in the metro D.C. area in an aggregated backbone ring that would then enable it to split off lines to its various customers. The products support different network topologies such as point-to-point, linear optical add-drop multiplexing (OADM) and ring using DWDM and CWDM technology and support data rates from 8 Mbps to 10 Gbps with a path to seamlessly upgrade to 40 Gbps.

As Atlantech added voice to its services portfolio, it needed to respond to growing traffic and service requirements while maintaining power efficiency, size and overall cost. The LambdaDriver offered it the scalable solution it needed to maximize its bandwidth and service flexibility, while creating new revenue opportunities through high-speed Ethernet, SONET/SDH optical rings and SAN services.

Implementation

When it came time for Atlantech to migrate away from the leased line model and upgrade its fiber backbone, the process needed to be gradual to minimize the impact on Atlantech's customers and to spread the costs out. Thus, it needed a solution that would enable it to leverage its bandwidth in a gradual manner and had the flexibility to enable it to be upgraded as the network grew in size and evolved to accommodate new services.

Atlantech chose the MRV equipment after a competitive review process that included it working with longtime MRV value added reseller partner Solunet. As it evaluated options, the carrier determined it needed a solution that would be able to coexist with its existing infrastructure.

"There were a few driving forces that went into our decision to go with the WDM solution from MRV," said Eric Van Tol, operations manager for Atlantech Online. "Primarily, we needed a certain set of features and functionality. The gear did what we wanted and worked with what we had."

"We found a number of solutions that had our functionality, though, so the second driving factor of cost was another major consideration in MRV's favor. Competing solutions we evaluated were as much as six figures more expensive. Thirdly, one of our locations is in the basement of a building that lends itself to AC power, and we wanted a solution that offered us that option to set up a point of presence in a non-traditional telecom spot. MRV was the only vendor who offered such a solution."

Case Study

All these factors made implementation of the LambdaDriver solution the clear answer, as it offered the right combination of features, functionality and cost effectiveness. Additionally, the modular architecture of the chassis and the number of optics offered by MRV at price points drastically lower than those of their competition, gave the LambdaDriver unparalleled flexibility and a clear path to upgradeability as Atlantech's network continues to grow.

Success!

When its network expansion was completed, Atlantech was able to maintain its growth rate, providing high-bandwidth services for an expanding client base. The migration aided the regional carrier in providing the voice services while maintaining power efficiency, size and overall cost. The modular WDM solution from MRV offered Atlantech the scalability it needed to maximize its flexibility, while offering a clear upgrade path, should the carrier's rate of growth necessitate a migration to a 10 Gbps data rate.

"This experience definitely put MRV's foot in the door for expanding the business we do with them, not only with the WDM equipment side, but we are also looking at their other product lines—specifically their switches and media converters," said Van Tol. "We're pretty happy so far, and we're confident MRV's equipment can do everything we need it to in order to support our current and future network needs."



MRV has more than 50 offices throughout the world. Addresses, phone numbers and fax numbers are listed at www.mrv.com. Please e-mail us at sales@mrv.com or call us for assistance.

MRV Los Angeles
20415 Nordhoff St.
Chatsworth, CA 91311
800-338-5316
818-773-0900

MRV Boston
295 Foster St.
Littleton, MA 01460
800-338-5316
978-952-4700

MRV International
Business Park Moerfelden
Waldeckerstrasse 13
64546 Moerfelden-Walldorf
Germany
Tel. (49) 6105/2070
Fax (49) 6105/207-100

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. Please contact MRV Communications for more information. MRV Communications and the MRV Communications logo are trademarks of MRV Communications, Inc. Other trademarks are the property of their respective holders.