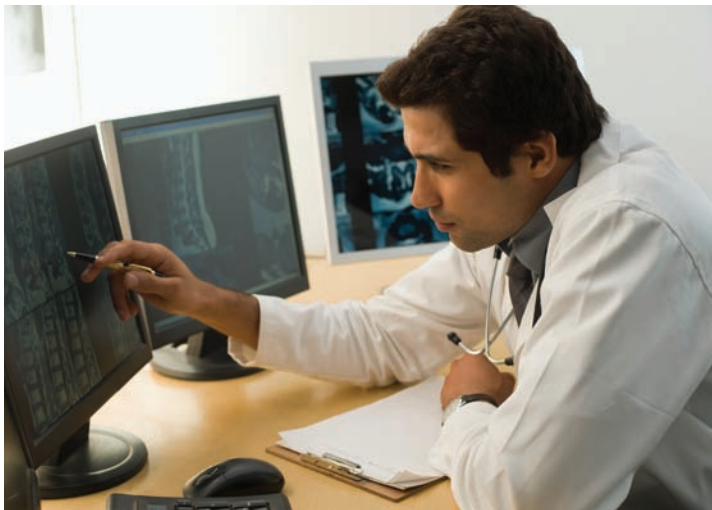


# Dedicated to Private Networks

***AboveNet adds the Tellabs® 7100 Nano™ System to deliver dedicated wavelength services to enterprises.***

*By Joan Engebretson*



***AboveNet has built a business around providing large enterprises in Europe and the U.S. with customized, private DWDM solutions. The fiber-rich company builds dedicated networks for each customer, offering each enterprise its own fiber pair, as well as dedicated transmission equipment.***

“We’re focused on the optical space,” said Angelo Germani, vice president of sales engineering for the White Plains, N.Y.-based operator. “We’re talking 100 Mbps bandwidth or higher. Our core service is using DWDM to provision customers with a custom network to meet any need, from storage area networking to local loop bypass to IP telephony.”

AboveNet recently added the Tellabs® 7100 Nano™ Optical Transport System to its portfolio because its design is well-suited to its business model. The Tellabs 7100 Nano system provides a flexible, multiservice system with ROADM capability in a small chassis.

“AboveNet’s customers include many large, global enterprises with sophisticated, mission-critical communications requirements,” said Mary Beth Nance, executive director of business development for AboveNet.

“Our customers look for high bandwidth, low latency and diverse paths,” Nance said. “We purpose-build out backbone in and among key data centers on diverse cable routes. We believe data centers such as those operated by Equinix, Savvis, Telx and Internap are the next-generation COs.”



**AboveNet™**

## **Staying in Control**

Most AboveNet customers are doing data replication in and among these data centers. So they’re looking for a private fiber solution on diverse paths to provide connectivity to those centers and in between them.

Because AboveNet has its own fiber, it bypasses traditional telco COs and tandem switches. This design minimizes latency and security risks, and it helps avoid the kinds of equipment problems that come with CLEC- or ILEC-provided connectivity.

“They would be more exposed to maintenance activities that have nothing to do with their service but could knock them out or affect their service,” Germani said.

## **A Fiber Pair for Every Customer**

When AboveNet initially constructs a fiber route, it generally installs 864-count fiber so it has enough infrastructure to dedicate a fiber pair to each customer. This design gives the customer a high level of control over its network and provides the flexibility needed to meet increased bandwidth demands.

Customers can easily scale their service from 100 Mbps to 1 Gbps and higher because fiber and DWDM are upgradeable virtually infinitely. That scalability also positions AboveNet to capitalize on the market for speeds that seemed like overkill just a few years ago – customer demands that the Tellabs 7100 Nano system can easily support.

“We’re starting to see many customers that didn’t need even 100 Mbps 2 to 5 years ago but who now are talking about a gigabit and beyond,” Germani said.

According to Vertical Systems Group, slightly less than 30% of U.S.-based businesses have fiber connectivity. Europe and other parts of the world have a mixture of markets with lower and higher fiber connectivity levels than in the United States.

“AboveNet’s offerings should appeal to fiber-connected businesses that seek scale, low latency and reliability,” said Rosemary Cochran, Vertical Systems Group principal. “There is certainly a need for that type of offering.”

The Tellabs 7100 Nano system meets those low-latency requirements by using new dispersion-compensation solutions to shorten the fiber path, as well as ultra-low-latency amplification for accelerating data transit.



“The result is a network solution that can deliver 1G, 10G and 40G transparent wavelength services quickly, securely and reliably,” said Bert Buescher, Tellabs director of product management at Tellabs.

### ROADM is the Future

In keeping with its model of offering customers a high level of control over their network infrastructure, AboveNet typically installs a dedicated DWDM chassis for each customer. The operator offers 3 different DWDM options, any of which the Tellabs 7100 Nano system can support.

AboveNet’s Basic Wave service is a single-wavelength, 3-node network that customers can purchase on a protected

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or unprotected basis. The Enhanced Wave service provides additional wavelengths.

Customers also can purchase more highly customized offerings that include 3 or more nodes. These offerings “can be very complicated and complex, full of ROADMs and using multiple channels,” Germani said.

“ROADM capability has to be part of whatever we do,” Germani said. “It’s the wave of the future in terms of feature set. The use of ROADMs enables a seamless, any-to-any connection of DWDM services between any number of nodes.”

“As recently as 3 years ago, it would have been too expensive to use a ROADM for a 2- or 3-node enterprise solution,” Germani said. “But now customers are looking at it almost routinely.”

ROADM support, as well as the ability to scale to 40 Gbps, are critical requirements for any DWDM system that AboveNet installs. Because each customer gets a dedicated chassis, the compact Tellabs 7100 Nano system is a natural fit.

“It’s fully functional in a small footprint chassis,” Germani said. “That’s a good feature, especially for smaller enterprise customers.”

AboveNet also liked the Tellabs 7100 Nano system’s ability to support a wide range of services on a single card.

“They can do Ethernet, SONET or storage networking,” Germani said. “[The Tellabs 7100 Nano system] gives customers options. It’s a simple, straightforward and elegant solution.”

### Team Effort

Another reason why AboveNet selected Tellabs is that the company was willing to provide marketing dollars to help support sales.

AboveNet also has teamed with Tellabs to enlist a third-party marketing firm to generate leads.

“We’re starting in 4 cities and will eventually expand into the remaining AboveNet markets,” Nance said.

“The Tellabs 7100 Nano system is a great addition to AboveNet’s portfolio of offerings,” Nance said.

“We have been impressed with Tellabs’ responsiveness and technology, and we look forward to working with them collaboratively to bring joint solutions to the market.” ■

**CLEC:** Competitive Local Exchange Carrier  
**CO:** Central Office  
**DWDM:** Dense Wavelength Division Multiplexing  
**ILEC:** Incumbent Local Exchange Carrier

**IP:** Internet Protocol  
**ROADM:** Remote Optical Add/Drop Multiplexer  
**SONET:** Synchronous Optical Networking