

Vtesse: Built for Speed

Over the past few years, Vtesse has grown so rapidly that it has struggled to keep up with existing customers' demands for service while responding to new opportunities. Vtesse executives decided they had to deploy an advanced networking solution that could enable the company to get—and stay—ahead of customer requirements.

“One of the big advantages that we have over larger competitors is our agility: our ability to react quickly to customer needs and turn up services just as quickly,” says Aidan Paul, Vtesse CEO. “As our growth accelerates, we needed a way to strengthen that advantage and Tellabs delivered just what we were looking for.”

The ROADM to Flexibility

Vtesse upgraded to a ROADM network based on the Tellabs® 7100 Nano™ Optical Transport System (OTS). The architecture enables a full-featured

optical network flexible enough that Vtesse can now turn up new, high-bandwidth services quickly across its entire network while reducing total cost of ownership. The operator now can go the distance—literally—when customers need connectivity to multiple locations scattered across the United Kingdom.

To enable those capabilities, the Tellabs 7100 Nano OTS combines multiple features into a compact footprint:

- Flexible, seamless growth from white light configurations to fixed optical DWDM configurations to full multi-degree ROADM configurations
- Capability to handle virtually any service type (SDH, Ethernet, SANs) from 100Mbps to 40Gbps
- Integrated SDH switching, OTN Switching and Layer 2 switching.

The Tellabs 7100 Nano system's design enables Vtesse to extend cost-effective optical transport at speeds ranging from 100Mbps to 40Gbps at the network's edge. By eliminating the need to purchase a separate ADM and Layer 2 switch, the Tellabs system also minimizes Vtesse's CapEx requirements.

Supporting a wide range of service modules, the platform can operate as both an OLA and a node for reconfigurable or fixed optical adds/drops of up to 88 wavelengths. Vtesse can add/drop any of those 88 wavelengths remotely or, if using the OLA configuration, amplify all 88. That flexibility, combined with service-delivery modules that are 100% tunable across the C band, means Vtesse can provision nearly any service at the optical layer.

The U.K. operator revamps its network with the Tellabs® 7100 Nano™ Optical Transport System

By M.J. Richter

What do you do if you're growing so quickly that your network can't keep up with demand? One good starting point is to enhance your optical network with more advanced technology—technology that can deliver the sophisticated services your customers need now and in the future.

Better yet, what if that new technology comes from a vendor that also helps you design new service offerings that take advantage of the capabilities of that technology? Capabilities such as helping capture new customers, increasing growth at those customers and improving customer retention? What if that vendor partner even has a lead-generation program to help kick-start your entry into new markets?

In a nutshell, that's the story of Vtesse Networks, a fiber-based carrier in the United Kingdom. Primarily serving enterprise customers, Vtesse's portfolio includes private optical networks, managed IP virtual networks, nationwide Ethernet connectivity, data centers, and co-location and hosting services.

The Tellabs 7100 Nano OTS also protects Vtesse's investment by using convergence at the optical layer to accommodate future expansion. As a result, at any site where it deploys the Tellabs 7100 Nano system, Vtesse can deliver up to 88 wavelengths of service (10Gbps or 40Gbps) without adding a whole new system or network connection.

The Tellabs solution also protects Vtesse's embedded investments by using a multi-layered approach that basically puts everything under a single roof. Vtesse can now retain multiple existing network elements and use the Tellabs 7100 Nano system as a bridge between all of them. The Tellabs® 7194 Management System also gives Vtesse engineers the end-to-end visibility they need to ensure topnotch performance and helps Vtesse reduce its OpEx with simpler configurations.

Fast and Cost-Effective

In March 2011, Vtesse launched the project's first phase: a 13-degree ROADM network across London. ROADM-based systems connect 6 Vtesse sites, while 2 fixed-optical ADM systems link 2 additional locations. Together, they support the delivery of high-speed services throughout the city, including high-speed access to the London Internet Exchange.

"The ROADM and fixed-optical systems work seamlessly together to give a more cost-effective deployment that enables service providers to reach more customers with more services," says Robert Shore, Tellabs' sales solution manager for Vtesse. "Each Tellabs 7100 Nano OTS supports virtually every type of business service across a dynamic optical



"We're excited about our growth prospects and our relationship with Tellabs."

— Aidan Paul,
Vtesse CEO

infrastructure. Vtesse can deploy any kind of service between any location and turn up those services quickly. This capability results in Vtesse being able to drive down OpEx costs and increase competitiveness."

The "rate-agile" interfaces of the Tellabs 7100 Nano system directly address Vtesse's need for highly flexible bandwidth provisioning. That design means Vtesse can software-provision the same physical interface for practically any type of service.

In addition, the Tellabs 7100 Nano system's dynamic optical-networking capabilities further enhance the ease and

PARTNERING FOR SUCCESS

Besides deploying the Tellabs® 7100 Nano™ Optical Transport System and using Tellabs engineering services, Vtesse is also participating in the Tellabs Enterprise Partnership Program. Tellabs designed the program to help service providers identify new opportunities and land new business. Tellabs also will train Vtesse's sales team to educate prospective customers about what the new network can do for them.

Through joint public relations and marketing efforts, including attendance at trade shows and other venues, Tellabs will help market Vtesse's network and services. Tellabs also will work with a third-party company to help generate qualified leads for the Vtesse sales team.

"It's all part of the Tellabs mission to both deliver advanced networking solutions and to help service providers such as Vtesse build on success and ensure long-term growth," says Robert Shore, Tellabs' sales solution manager for Vtesse.

speed of service turn-ups. The platform's DWDM optics and its ROADM optical connectivity enable Vtesse to provision new services over an existing optical wavelength. Or, Vtesse can provision new services over a new wavelength established with simple insertion of interface cards at the end-points of the service.

"Vtesse can put cards in at either end of the network and then software-provision everything in between, including the services provided on the endpoints," Shore says. "That adds up to ease, flexibility and access to massive bandwidth."

Amid Construction, Customers Sign On

Even before the Vtesse-Tellabs engineering team completed Phase 1 in May, one customer had already gone live on some sections of the network. Vtesse confirmed that the rapid provisioning of services enabled by the Tellabs deployment was key to securing the business, given the customer's aggressive implementation timelines.

That initial win shows Vtesse already realizing its goals—including expanding the capabilities of its network and winning new business—while setting it up for even more success down the road. ■

ADM: Add/Drop Multiplexing

CapEx: Capital Expenses

DWDM: Dense Wave Division Multiplexing

OLA: Optical Line Amplifier

OpEx: Operating Expenses

POP: Point of Presence

ROADM: Reconfigurable Optical Add/Drop Multiplexer