The Company Behind the Smartest, Fastest Optical Networks
The Products Inside the Smartest, Fastest Optical Networks
Smarter Software, Faster Hardware

Create
STARNET PLANNER™

Optimize
STARNET MODELER™

Run
STARNET OPERATING SYSTEM™

Control
STARNET WAVELENGTH MANAGEMENT SYSTEM™

Empower
AURORA OPTICAL SWITCH™
AURORA 128™
AURORA 32™
AURORA FULL-SPECTRUM™
Maximizing Bandwidth for Profitability
• Design greenfield and augment multi-vendor networks
• Optimize or re-optimize bandwidth utilization for large cost savings
• Plan for traffic growth by cost-analyzing “what if” scenarios
• Determine where to place facilities and equipment to optimize profitability

Optimizing Network Performance
• Run “what if” scenarios to analyze performance during a variety of network incidents
• Dynamically visualize restoration and provisioning events
• Integrate performance feedback into other StarNet Software Suite products

Advancing Core Network Intelligence
• Maximize the performance of Tellium’s Aurora Optical Switch — and, thus, the entire network — with a carrier-class operating system
• Achieve virtually instantaneous restoration in the event of a network failure
• Deploy highly scalable optical switching and grooming capability at core speeds

Providing New Levels of Profitability
• Combine traditional support and management features (FCAPS) with full optical services management
• Turn network provisioning into a fast, automated, point-and-click operation
• Deliver new, differentiated optical services and levels of protection
• Integrate with other standards-based NMSs

Enabling a Smarter, Faster Core Optical Network
• Increase bandwidth and reduce transmission costs while ensuring network survivability
• Achieve new revenue streams quickly with new optical services and dynamic provisioning
• Reduce capital expenses and eliminate duplicate equipment through a high-capacity core grooming optical switch
The hardware, the software, and the people of Tellium are making the new optical network a brilliant reality. With customers demanding massive amounts of bandwidth and new optical services, carriers are searching for a solution that enables them to meet these demands quickly and cost-effectively. Tellium has the solution. Our Aurora™ product family, supported by our StarNet Software Suite, offers fast, highly scalable optical switches and comprehensive, intelligent, carrier-grade network planning and management.

Developed by a team of optical networking experts who are on the boards of major industry standards-setting organizations, Tellium’s hardware and software offer a best-of-breed, OpenOptics™ architecture. Together, they enable carriers to maximize network profitability while delivering the new bandwidth and optical services their customers demand.
Tellium’s hardware and software work together to ensure continuous network operation and maximum performance. Our solutions provide fully optimized networks, enabling full network restoration in milliseconds, should a fault occur.
Optical Networking:
The Future of Telecommunications is Here

Thanks largely to the exponential growth of the Internet, demand for new bandwidth is exploding. This presents a major opportunity to carriers — providing they can meet the demand in a fast, cost-effective manner. Unfortunately, most existing networks were designed to handle only voice communication, with its predictable traffic patterns and relatively slow growth. For carriers seeking to capitalize on data-driven bandwidth demand, optical networking is the choice.

At the heart of the new optical network are core optical switches, which intelligently direct traffic over fiber-optic networks. While Dense Wavelength Division Multiplexing (DWDM) significantly increases network capacity, there is still the need to more rapidly and cost-effectively harness that raw capacity to deliver new, flexible, dynamic optical services. Tellium’s intelligent optical switches are the answer. Our Aurora product family and sophisticated StarNet Software Suite work together across a network to implement innovative features based on emerging routing and signaling standards.

Carriers seeking to harness the advantages of all-optical solutions while maintaining current management and protection features need equipment that is interoperable with the existing network. Tellium’s Aurora switches provide complete interoperability. What’s more, they offer a logical, evolutionary path from existing networks to an all-optical environment, meeting the needs of carriers who continue to require traditional management functions. Our optical switches unlock the advantages of evolving networks for carriers, including different levels of mesh restoration protocols that generate infrastructure cost savings. New multiple-protection services enabled by the Aurora product line allow carriers to offer new, differentiated services without losing any traditional management features.

The Aurora product family’s high capacity and intelligence enable carriers to lower capital expenses by reducing or eliminating duplication of common equipment. Real-time provisioning and optical “bandwidth-on-demand” services shorten time to service delivery, resulting in savings that go directly to the carrier’s bottom line.

Optical networks are key to the growth and prosperity of the telecommunications industry. And Tellium’s Aurora family of optical switches, backed by the StarNet Software Suite, is unlocking the full potential of this technological revolution by enabling faster, smarter optical networks.
Tellium:
Making Optical Networks a Brilliant Reality™

Though a young company in years, Tellium has quickly established a leadership position in optical networking. We were founded in 1997 by a group of optical experts from Bellcore (now Telcordia), the former research arm of the Regional Bell Operating Companies. In short order, we attracted industry-leading engineers and researchers from such companies as AT&T, Nortel Networks, Lucent Technologies, MCI, and Cisco. Today, our people sit on leading optical industry standards-setting boards, where they continue to help shape the future of optical networking.

Tellium’s product innovations led to rapid industry adoption, with companies such as Cable & Wireless Global, Qwest, and Dynegy Global Communications. These visionary companies were impressed not only with our hardware and software strengths, but also with our commitment to working closely with them to customize our solutions to meet their individual needs.

While Tellium has grown quickly from a small spin-off to an established industry leader, we’ve retained our laser focus on what we do best: developing faster, smarter optical switches for next-generation networks. By championing a best-of-breed approach to building optical networks, we enable carriers to put in service the finest elements from the top providers, thereby enhancing their networks as well as their bottom lines. Our standards-tested, reliable, and interoperable solutions are designed to grow with the expanding needs of our service provider customers – flexibly and cost-effectively.
Tellium has become a magnet for leading networking professionals who share a keen enthusiasm for building and deploying a best-of-breed optical solution.
Voices of the New Optical Network

“WDM systems were the first wave of optical networking systems. These brought an explosion in capacity, but without intelligence to manage wavelengths. Now high-throughput switches, such as those from Tellium, add critical networking functions: bandwidth management and intelligence that allow service providers to manage where capacity is added and dropped and how it traverses the backbone.”

— Dana Cooperson
Director of Optical Transport
RHK, Inc.

“By integrating Tellium’s core switching platform, we gain network efficiencies and additional resources to provide broadband Internet applications and services with greater performance and reliability.”

— Mike Perusse
Senior VP, Engineering & Technology
Qwest

“We thoroughly analyzed our choices before choosing our core optical switching partner. Tellium’s advanced software features and scalable platform support our goal to quickly expand our seamless network across the globe and provide dynamic capacity allocation to our customers.”

— Mike McTighe
CEO, Global Operations
Cable & Wireless Global
“The Tellium Aurora Optical Switch is an important element in our network build-out strategy and will provide us with the ability to offer our customers a faster, more robust network solution.”

– Larry McLernon
CEO and President
Dynegy Global Communications
Inside the Fastest Optical Networks:
The Aurora Product Suite

Tellium’s Aurora optical switches create a scalable, flexible optical network, enabling reliable, fast, low-cost delivery of intelligent optical services. Aurora switches feature multi-vendor interoperability. They provide the ability to connect the new generation of high-speed routers, legacy SONET/SDH equipment, and ATM switches directly to the optical layer, bypassing expensive SONET/SDH multiplexers. Already the choice of leading network service providers, Aurora switches are setting a new standard for speed, reliability, and scalability.

Tellium’s Aurora 32
Lighting the way

Shipping since 1999, the Aurora 32 is Tellium’s first optical solution as well as the first in-service optical switch anywhere.

As the first optical switch, the Aurora 32 answered the growing need of carriers for a more flexible and dynamic means to deploy more cost-effective optical networks. The Aurora 32 pioneered an OpenOptics architecture and paved the way for a new generation of best-of-breed optical networks. The compact design of the Aurora 32 makes it perfect for space-constrained applications requiring a flexible, remote optical signal management capability.

Tellium’s Aurora 128
Extending the core’s reach

The Aurora 128 is an optical switch designed for small- to medium-sized offices and has a total switching capacity of 320 Gbps. Like other Aurora switches, it offers the highest reliability and flexibility available in the industry today. The small footprint of the Aurora 128, teamed with the StarNet Software Suite, enables carriers to offer dynamic and automatic provisioning and multiple levels of protection as well as lower capital expenses.

Tellium’s Aurora Optical Switch
Empowering the core’s optical network

The Aurora Optical Switch represents a major advance over existing core optical service capabilities. Currently available with 1.28 Tbps of core switching capacity, the scalable Aurora Optical Switch provides dynamic and automatic provisioning and protection as well as in-service system upgrades.

Through OpenOptics interoperability, Tellium enables service providers to equip their networks with a best-of-breed solution that allows them to groom at core speeds while adding differentiated, next-generation optical services to their customers – in seconds, with just a point and click. Networks built on Aurora optical switches accelerate top-line revenue while dramatically reducing the cost of providing new services.

Tellium’s Aurora Full-Spectrum
Completing tomorrow’s core

The Aurora Full-Spectrum switch is being developed to provide customers a migration path with Tellium’s current family of optical switches. Since the core will require both O-E-O and O-O-O capabilities, combining all-optical switching with the electronic control and processing of today’s Aurora Optical Switch enables carriers to scale in port count, bit rate per port, and raw capacity – without sacrificing intelligence and grooming.
Driving the Smartest Optical Networks:
The StarNet Software Suite

To meet their customers’ bandwidth needs cost-effectively, carriers need an efficient optical network. This requires not only the fastest possible hardware – Tellium’s Aurora family of optical switches – but also effective planning, operating, and management tools. StarNet, Tellium’s suite of software tools, is designed to work with Aurora switches to deliver the fastest, smartest optical networking available.

**StarNet Planner**  
*Create a brilliant optical network*

Tellium’s StarNet Planner is a network cost-optimizing tool that uses existing carrier network information to plan and design an efficient optical network from the ground up, or to augment the design of an existing, multi-vendor optical network. StarNet Planner lets carriers create “what if” scenarios for future growth in a best-of-breed network. This lets them analyze the cost and performance of these options and choose the optimal placement of facilities and equipment to meet demand and restoration requirements – all while minimizing costs.

**StarNet Operating System**  
*Run the network for maximum performance*

StarNet OS™ is the carrier-class operating system that maximizes the performance of Tellium’s Aurora product line – and thus the entire optical network. Utilizing Tellium’s unique software-maximized protection services and standards-based protocols, carriers can achieve virtually instantaneous restoration in the event of a network failure.

The intelligence of the StarNet OS is distributed within the network – providing millisecond restoration at the lowest possible cost.

**StarNet Modeler**  
*Optimize the optical network*

After creating a network plan with StarNet Planner, a carrier can use StarNet Modeler to validate and optimize the network’s response to traffic demands and failure. This maximizes service availability – before, during, and after build-out – ensuring continuous maximum performance. StarNet Modeler is a network performance optimizer that allows carriers to understand the dynamics of lightpath creation, fault occurrence, and path restoration in a planned network. And by analyzing the effects of network changes, StarNet Modeler provides the information carriers need to ensure cost-effective network performance, survivability, and reliability.

**StarNet Wavelength Management System**  
*Control the network efficiently and effectively*

StarNet WMS™ makes provisioning a fast, automated, point-and-click operation. By adding service differentiation and eliminating the 10–15 week lead time once needed to deliver new optical services, StarNet WMS maximizes carrier profitability without compromising the existing network infrastructure or management functionality. Its open management interface and configurability with any topology enable efficient and cost-effective network migration and protection services.
Tellium’s Aurora optical switches are supported by the StarNet Software Suite of intelligent, powerful network planning and management tools.
To realize the enormous potential of optical networks, nothing short of a best-of-breed solution will do. Tellium’s Aurora family of optical switches, supported by our powerful StarNet software tools, maximize the performance and profitability of optical networks.

Tellium is working closely with leading service providers to help them realize the full potential of their optical networks. If you would like to join this group of growing, visionary companies, call us at 1-800-531-7772 or visit us at www.tellium.com.

For investor relations questions, please call 1-866-696-TELM (8356).