



Cyan Unveils Company and The Cyan Z-Series Family of Packet Optical Transport Platforms

New Hardware and Software Solutions Deliver Disruptive Capital and Operational Efficiencies for Scaling Today's Networks

PETALUMA, Calif., September 15, 2009 – Enabling exponential network scale with transformational new management paradigms, [Cyan™](#) today formally introduced the company and its [Z-Series™ of multi-layer optical transport platforms](#) and [CyMS™ multi-layer management system](#) with over 20 carrier customers. The Petaluma-based team of industry innovators once again lead the industry with market-disruptive solutions to help network operators address the challenge of rapidly scaling services capacity in a budget constrained era. “Our solutions were purpose-built to help carriers capitalize on the explosive growth of bandwidth and the fundamental shift to [packet services](#),” says Michael Hatfield, CEO and co-founder of Cyan. “As traffic surges on relatively flat revenues, operators are challenged to find new ways to dramatically scale their network capacity with profoundly lower costs. Our customers have found that the Cyan Z-Series with multi-layer management helps them solve that challenge.”

“The Cyan Z-Series takes packet optical transport systems to a new level of multi-layer integration in both hardware and software,” stated Michael Howard, principal analyst of carrier and data center networks at Infonetics Research. “I especially like the breakthrough innovation of multi-layer management comprising visualization, planning, provisioning, and control, which will help make service providers’ operations fundamentally more efficient. This is one of the best new products I’ve seen in years.”

Cyan’s Z-Series of packet optical transport solutions have received strong market acceptance. To date, Cyan has more than 20 customers ranging from metro and regional Ethernet service providers, to local and regional broadband providers, transport providers, cable MSOs and even data center operators. Initial deployments support [applications](#) such as wireless and Internet backhaul, Metro Ethernet Forum (MEF) services, IPTV backhaul, SONET/SDH transport, wavelength transport services, and more.

Cyan Customers See Immediate Benefits

“Cyan is helping us deal with the challenge of scaling our existing TDM transport infrastructure, while we are simultaneously transitioning to packet,” said John Greene, chief engineer at Great Plains Communications. “Most vendors offer either a pure Ethernet or TDM product, but don’t offer solutions that are optimized to support both concurrently, and certainly not with the scale or manageability of the Z-Series. We performed an extensive RFP with the help of a trusted

consulting firm and found that Cyan's technology and capabilities are more advanced than any other solution."

"We've been using the Cyan Z77 to provide transport for mission critical Ethernet backhaul since late 2008," added Joe Jensen, president of Buckeye Telesystem. "The Z-Series received rave reviews from our engineering group for its provisioning interface. Candidly, the system has been so stable and reliable we almost forget that it's there. The few times we've had any questions or issues, Cyan has exceeded our support expectations. This level of robustness and support allows us to focus on our primary business – providing services to our customers."

"We've known Cyan for quite some time and they have delivered to us a solution that is a perfect fit for our Regional Carrier space" added Scott Hoffmann, Executive Director, Wisconsin Independent Network. "In addition to cost effective solutions, Cyan offers services for planning and network monitoring that make the technology adoption as simple as ever. The Cyan team has a proven track record. We compared their technology to others and determined that Cyan is well suited for the growth and types of new services we envision for our network. Cyan has made the entire experience for WIN very smooth through their personalized support of our installations."

Cyan Z-Series Highlights

The Cyan Z-Series includes the [Cyan Z33](#) and [Z77](#) multi-layer transport platforms that modularly combine packet, TDM and optical add / drop multiplexer, cross-connect and transport functionality in highly integrated platforms supporting over 100 Gbps per slot. The Cyan [CyMS](#) is the first management system that provides full multi-layer visibility and business intelligence. The result is a new generation of packet optical transport solutions that meets the current and future cost and scalability demands of today's service provider networks.

Key features and benefits of the Cyan Z-Series offering:

- Provides economical, massively scalable capacity that snaps into existing packet, SONET and SDH based networks and incrementally scales with advanced G.709 OTN (optical transport networks) and optical add / drop multiplexing and switching
- Extends the role of existing TDM infrastructures by enabling a smooth transition to Ethernet with a platform that supports a gateway between technologies
- Extends the role of Ethernet to support advanced MEF services with new connection oriented Ethernet transport standards for superior performance and economics
- Cost-effectively scales from the network edge to the core for functional and operational consistency as historic boundaries of the access edge, metro and core dissolve for a more homogeneous network
- Simplifies the planning, implementation and management of an increasing number of network and technology layers with revolutionary new multi-layer management capabilities to reduce operational expense and improve capital efficiency

Cyan Delivers Cutting-edge Z-Series Multi-layer Transport Platforms

Cyan's family of multi-layer transport platforms leverages the latest technologies and development techniques to deliver unprecedented architectural scale, modularity and multi-layer manageability. The Cyan Z33 and Z77 work in harmony with CyMS to support a range of packet, TDM and optical service modules with over 100 Gbps of service capacity per card slot, translating into hundreds of gigabits to terabits of system capacity and a foundation for future 40G and 100G service modules. These systems can be cost-effectively configured as basic 10G Ethernet, SONET or SDH edge aggregation and add/drop multiplexer systems or modularly scaled when and where needed to enable dense wave division multiplexing (DWDM) with highly advanced multi-layer packet, TDM and optical switching, aggregation and multiplexing both within and between technologies and network layers for application across the network.

The Cyan Z33 provides six multi-service slots, plus two common control modules to support multi-layer add / drop multiplexing (MADM) and transport in a compact chassis. The Z33 is sized and cost optimized for access edge, aggregation and transit nodes and supports a range of powerful service modules ranging from non-blocking 80G connection oriented Ethernet switch modules supporting advanced MEF services, to non-blocking 60G SONET/SDH MSPP modules and high capacity mux-ponding and transponding modules, all with OTN. As service capacities scale to exceed the number of available fibers, flexible DWDM modules can combine up to four, eight or 40 channels of 10G multi-service transports per fiber.

The Cyan Z77 platform combines the same packet, TDM, OTN, and optical add / drop multiplexing with multi-layer cross-connect (MXC) switching in a single cost-effective platform. Designed with an ultra-high capacity mid-plane architecture, the Cyan Z77 supports the same modules as the Z33 with up to 2.5 Tbps of capacity per chassis. Modularly configurable and scalable, the Z77 supports optional multi-technology switch fabrics supporting a mix of up to 840 Gbps of protected packet service or 720 Gbps of protected SONET/SDH capacity to meet the requirements of larger aggregation, transit and hub locations.

The Cyan Z33 and Z77 both support optional advanced optical multiplexing and switching modules. Both Z-Series platforms can be configured with ultra-low cost four or eight channel DWDM modules using pluggable (SFP / XFP) optics or 40 channel DWDM modules with wavelength selectable switching (WSS) across two degrees on the Z33 or up to seven degrees on the Z77. The Cyan Z77's ability to support this functionality with colorless, non-directional, tunable optics has provided industry leading operational efficiency for customers since the fall of 2008.

"The changes in technologies and traffic patterns have profound implications on the way we architect products and networks," says Steve West, CTO and co-founder of Cyan. "New technologies and development methodologies enable exponentially greater capacities at a fraction of the cost of historic solutions. The resulting economics are simply irrefutable." (www.cyanoptics.com/blog).

Cyan's CyMS Provides New Levels of Management Functionality

Providing higher levels of visibility and business intelligence, Cyan's CyMS multi-layer management system provides carriers with transformational three-dimensional visualization tools to improve the planning, provisioning, operational efficiency and effectiveness of networks.

Cyan's multi-layer management system and Z-Series platforms have been architected with optimized multi-layer management as a founding objective. In fact, the multi-layer management framework was designed in advance of the actual platforms – allowing the platforms to be architected to optimize multi-layer manageability. The result is a revolutionary ability to display the relationships and interdependencies between network technologies and resources to simplify planning, provisioning and operations across all layers of the network.

Quotes and Availability

The Cyan Z-Series multi-layer optical transport platforms and CyMS multi-layer management system are available now. Contact Cyan at +1 707.735.2300 for quotes and configuration information.

About Cyan

Cyan enables service providers to scale, extend and simplify conventional and packet-based networks for more profitable service offerings. Cyan solutions have a proven record in a wide range of deployments including Carrier Ethernet (MEF), wireless backhaul, IPTV, VOD, broadband and wavelength service applications. Cyan is a Petaluma, California-based team of industry veterans with a track record of successful innovation in communications networks around the world. For additional information, please visit www.cyanoptics.com.

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