

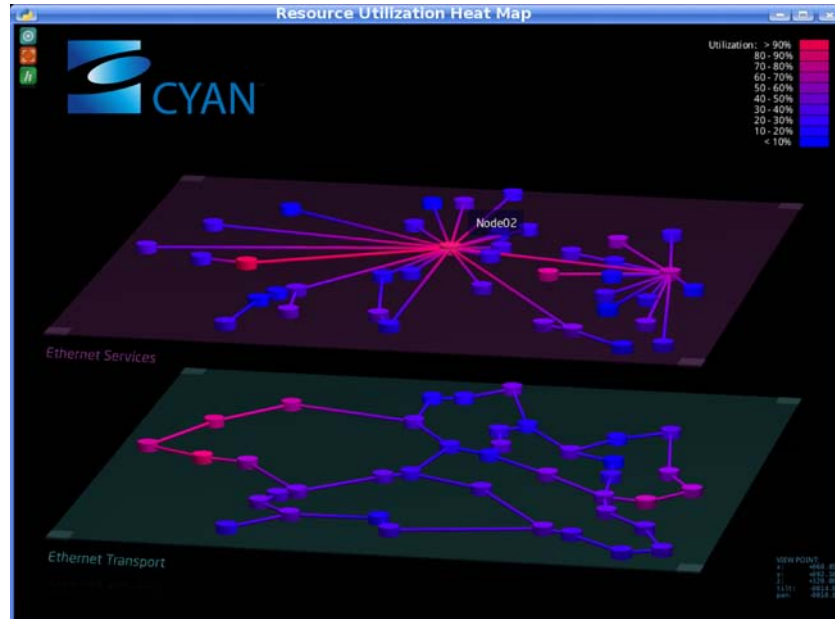


## Cyan Announces the Industry's First Multi-Layer Network Management Solutions with Three-Dimensional Heat Maps

*Cyan's powerful CyMS multi-layer management tools enable enterprise IT managers and service providers to improve planning, services and incremental revenues.*

**LAS VEGAS, April 26, 2010 (INTEROP)** – Further enhancing the industry’s first and only three-dimensional multi-layer network management systems, Cyan today announced powerful new tools for improving network planning, operations, performance and revenue opportunities. CyMS Release 2.3 further exploits the human capacity for visual communication through the incorporation of the industry’s first three-dimensional heat maps which indicate changing network conditions before services are impacted. Data is represented graphically in an intuitive and visually compelling form. The three-dimensional representation provides one of the quickest and most effective methods to communicate alarms, configuration-errors, congestion, and even capacity utilization in a manner that encourages pre-emptive actions to avoid service disruptions, as well as faster fault isolation and resolution when disruptions occur.

(For a sample screenshot of the new features of CyMS Release 2.3, please [click here](#).)



“Proactive versus reactive network monitoring and control is not the norm; however, it is becoming the strategic high ground for service providers who are looking for time-to-problem-avoidance rather than time-to-problem-resolution,” stated Michael Howard, principal analyst of

carrier and data center networks at Infonetics Research. “The industry’s prevalent tools present a view of networks in a 'numbers by node' approach, where the human mind must correlate and assemble a mental picture of the hotspot patterns developing across a multiple node, multiple layer domain. The Cyan software visually presents a multi-layer heat map picture portraying multi-node hotspots that are typically difficult for humans to visualize. The instant image is ready for consumption as the network conditions arise, rather than--with other tools--after a human coordinates, calculates, and analyzes the ‘numbers by node’ data. Cyan’s packet optical transport systems with CyMS multi-layer management represent the state of the art for multi-layer network visualization, which today is a unique tool to aid operators in achieving smoother running networks with improved control, performance, and reduced operational costs.”

“Reliable, ultra-low latency transport is critical to our base of international data center customers who rely on GLC’s network performance to manage businesses in well over 70 countries and representing every continent,” said John Summersett, chief operating officer of Great Lakes Comnet. “As our network scales in footprint, capacity and complexity, the requirement for operationally-scalable and user-friendly planning and management tools become increasingly critical. Our competitive edge depends on our ability to operate flexible, low-cost, high-performing networks and Cyan’s Z-Series transport platforms with CyMS multi-layer management give us that edge.”

Based in Michigan, GLC provides carrier’s carrier transport services along with fiber-based voice, video and data services with 21 independent telecommunications providers and share holders throughout the state. With strategic initiatives for data networking and data center services, GLC provides a critical services platform to their shareholder service providers, CLECs, IXC’s, ISPs and large enterprise customers by expanding new markets, centralizing applications and providing economies of scale.

“The network is undergoing a strategic transformation,” said Michael Hatfield, president and CEO of Cyan. “The maturing of packet services and OAM standards are enabling network operators to scale networks with even higher SLAs. Cyan is focused on providing our customers with both the service enabling transport infrastructure and the operational tools to deliver and up-sell these services, with higher network performance, while reducing both capital and operational costs.”

### **Multi-Layer Network Operations Optimization**

Scalable networks are fundamentally multi-layer in nature. Each network is comprised of fibers, often located in conduits. Each fiber carries one or more wavelengths and multiple layers of aggregation and transport services operate over each wavelength to deliver a variety of voice, video and data services. Historically, these multiple network layers have been planned, implemented and operated as independent layers. Cyan’s Z-Series multi-layer transport systems and CyMS multi-layer management offering provide an integrated and operationally unified view of the multiple virtual layers which comprise the complete network.

Release 2.3 of Cyan’s revolutionary multi-layer network management systems goes beyond three-dimensional displays of the various technology layers to provide visual indications of

network locations and layers that may be experiencing varying forms of degradation or resource utilization that warrant operator action. Increasing bit errors, decreasing optical margin, even increasing capacity utilization conditions can be visually highlighted with color gradient indications of condition severity. The result is that operators can visually identify emerging points of network threshold conditions before service affecting or service constraining conditions occur. This empowers network operators to monitor the health and status of the network in a visually intuitive manner which in turn empowers operators to identify and act on emerging network conditions before services are impacted, for higher SLA performance.

Proactively, the CyMS with multi-layer heat maps provide operators with a visual indication of various network parameters such as capacity utilization of a given service or technology layer at various nodes and spans. One example might be a DWDM link which is configured to support up to 40 channels of 10G services. When initially activated this span may have had only 20 channels activated. As services are sold and additional DWDM channels are activated, network operators will be visually alerted to the fact a rapidly decreasing number of channels remain available, triggering network planners to begin the process of deploying additional resources to continue to meet future service requirements without delay. Another example may be a metro Ethernet service, where network operators are alerted to the fact that resource utilization of an aggregate connection oriented transport service or even a particular customer VLAN may be approaching or reaching a pre-defined level of capacity utilization. In some instances this information can be used to trigger sales representatives to contact customers and sell them capacity upgrades to maintain their network performance levels, creating a win-win for service providers and their enterprise customers.

When alarm conditions exist the CyMS heat map clearly illustrates which layers and which services are in alarm. Gradient color coding of the network layers visually empowers operators with the insight of which alarm points are the source of problems versus others which are mere symptoms. With these visually enhanced tools, operators can proactively identify which portions of the network warrant capacity expansion, which customers are prospects for up-selling and which areas to focus on when network alarms exist. The bottom line is improved network and operator performance, incremental revenue opportunities and decreased capital and operational cost through more effective management and resource utilization.

For more information about Cyan or to see a demonstration of CyMS, visit Cyan at [Interop Las Vegas 2010](#) in booth #854.

### **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), data center, 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](http://www.cyanoptics.com) or follow Cyan on Twitter at <http://twitter.com/CyanNews>.

## **About Great Lakes Comnet**

Great Lakes Comnet is a broadband network and switching infrastructure company that enables modern and efficient deployment of a variety of voice, video and data services. GLC was organized in 1996 as a for-profit corporation with headquarters in East Lansing Michigan. Its shareholders are independent telephone companies operating throughout Michigan. The company became operational in 2001 and has aggressively expanded its network footprint while profitably growing its operation every year. GLC currently has network connectivity with over 120 different carriers, serving customers in 70 countries and representing every continent. For additional information, please visit [www.glcom.net](http://www.glcom.net).

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