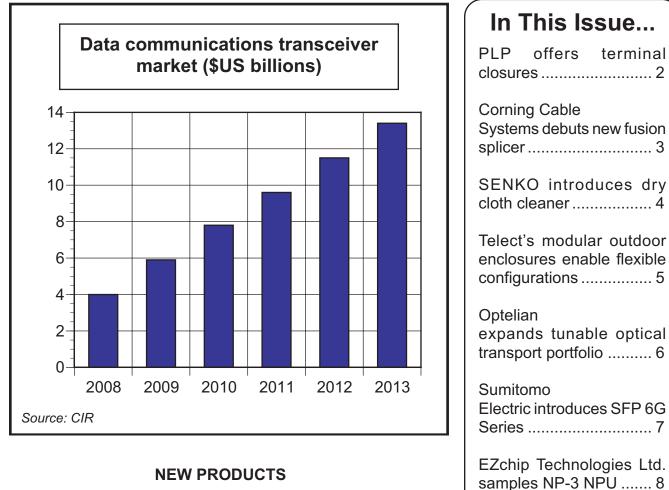
Components & SubSystems Ν

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Keyed LC System ensures network physical-layer security

The Panduit Keyed LC Fiber Optic System is designed to facilitate secure, modular, end-to-end keyed connectivity

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Enablence

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320 Washington St., Brighton, Massachusetts 02135, USA; Fax: (617) 782-5735; Editorial telephone: (617) 782-5033; Circulation telephone: (617) 782-5033, (800) 323-1088 (Outside MA); Email: info@igigroup.com; Web: www.igigroup.com Publisher/Editor: Dr. Paul Polishuk Editor: Dr. Hui Pan Managing Editor: Bev Wilson Circulation Mgr: Jaime Perez Subscription rates: \$695 per year, US and Canada; \$745 per year elsewhere. Discounts available for multiple subscriptions and licenses (see back page). Information Gatekeepers Inc. 2008. All rights reserved. (ISSN 1539-3623) No part of this publication may be reproduced, stored in a data base or transmitted without prior written permission of the publisher. For photocopying authorization, contact the Copyright Clearance Center, 222 Rosewood Dr., Danvers, MA 01923, (978) 750-8400. for all LC cabling and interconnect elements in the enterprise — from the main equipment room to the desk.

The system comprises keyed LC versions of Panduit OPTI-CORE Patch Cords and Pigtails, OPTICAM Pre-Polished Cam Connectors, OPTICOM Fiber Adapter Panels (FAPs), and MINI-COM Adapter Modules. These components use color-specific keys with positive and negative keying features that mechanically and visually distinguish connectivity to prevent unauthorized mating with unlike keyed or non-keyed adapters.

The key design provides the strictest keying integrity available to help comply with physical-layer security practices, and also addresses identification and authorization aspects of the Defense Information Systems Agency (DISA) Security Technical Implementation Guides (STIG), according to Panduit. Additionally, Panduit Keyed LC Connectors use the same rear pivot latch design as all Panduit LC connectors to provide superior latch cycle life and snagless installation to improve reliability and speed installation. The wide "positive grip" finger latch provides easier access and better control during matings and unmatings for faster moves, adds, and changes, the company concludes.

CyOptics introduces 10G TOSAs with a wide operating temperature range

CyOptics' new 10Gbps Miniature Device (XMD) Multi-Source Agreement (MSA) TOSAs, 1625L3 for 40km and 1626L3 for 80km applications, are available for an extended operating temperature range of -40 to +90 degrees C, while the 10Gbps TOSAs with integrated driver IC, 1635L7 (40km) and 1636L7 (80km), are offered for an operating temperature range of -5 to +85 degrees C.

All of these new products target highperformance XFP transceivers addressing OC-192/STM-64 SONET/SDH, 10Gbps DWDM, and 10-Gigabit Ethernet applications. Both product families are designed to deliver very low thermo-electric cooler power consumption values over the entire temperature range of less than 0.8W for the 1626L3 and less than 1.2W for the 1636L7.

"Our new and improved TOSAs address the need of transceiver manufacturers for higher operating temperatures driven by the increased packing density of pluggable transceivers on optical line cards," said Stefan Rochus, vice president of marketing and business development. "With the addition of these TOSAs and the availability of industrial temperature range performance we have one of the industry's broadest 10-Gbps transmit and receive product offerings."

The 1625&1626 L3 and 1635&1636 L7 are available in production quantities now.

PLP offers terminal closures

Preformed Line Products (PLP) has introduced the COYOTE Terminal Closure product line, which is designed to be adapted as networks grow.

The Terminal Closure line is available in single- or dual-chamber configurations. The externally mounted OptiTap-style hardened adapters allow for future installation of hardened drops without closure reentry. To add more flexibility to support closures deeper in communications networks, additional drop capacity can be achieved through cable entry ports in the closure base.

The COYOTE Terminal Closure family offers a flexible grommet system, which allows for the addition and removal of adapters and interchange covers. Changing installation needs can be addressed with no special tools required for assembly.

COYOTE Terminal Closures features include the following:

- Internal organizer manages buffer tube or ribbon cable;
- Strand, pedestal, pole, and hand-hole mounting hardware available;

- Provided standard with SCAPC pigtail kits;
- Tested in accordance to Telcordia GR-771 CORE.

The Single Chamber unit with 12-port cover is 17.5 inches (45cm) long x 10 inches (25cm) wide x 6 inches (15cm) deep. It accepts a maximum of 12 hardened adapters and is capable of accepting four 1.25-inch (32mm) diameter entry ports.

The Dual Chamber with two 12-port covers is 17.5 inches (45cm) long x 10 inches (25cm) wide x 12 inches (30cm) deep and accepts a maximum of 24 hardened adapters. It can accept eight 1.25-inch (32mm) diameter entry ports and provides two distinct chambers that can be configured differently. A window allows fiber to be passed between chambers. The product supports externally mounted hardened adapters, standard splice and storage applications, or internally mounted crossconnect bulkheads.

Corning Cable Systems debuts new fusion splicer

Corning Cable Systems introduced its new OptiSplice M90e Fusion Splicer, which it says is a feature-rich machine for networks where low-loss performance and high-end accuracy are imperative.

The latest addition to the OptiSplice Fusion Splicer product family, the M90e Fusion Splicer offers the active core alignment accuracy of the company's existing LID-SYSTEM Unit, along with the speed and versatility of a passive core-alignment technology known as the core detection system (CDS), explained company representatives.

The M90e provides an advanced set of features, yielding precise performance while reducing training and maintenance costs, all in a compact, user-friendly fusion splicer. The splicer offers what Corning claims is the industry's fastest total splice cycle time (splicing and heatshrink) for a core-alignment fusion

splicer, and it uses automatic fusion time to optimize each splice.

The accuracy of the LID-SYSTEM Unit and its power-through splice loss measurement method eliminates the time-consuming task of evaluating splices with an OTDR. The singlemode LID-SYSTEM Unit first optimizes core alignment in each of the X, Y, and Z axes. When the fusion process begins, the OptiSplice M90e Fusion Splicer's auto-fusion time control monitors the power level through the splice and completes the fusing process when splice loss is at a minimum, ensuring an optimum splice, reports the company. Finally, the LID-SYSTEM Unit measures splice loss by comparing power levels before and after the fusion process.

The M90e Fusion Splicer is equipped with a secondary method for core alignment (CDS) based on three-dimensional cameras. This technology allows for fast (13 seconds) single-mode core-alignment on 250- or 900micron coated fibers, bend-insensitive fibers such as ClearCurve, or fibers with live traffic. The M90e is also capable of automatically choosing the best alignment method for the application at hand.

The splicer contains precise and durable (P&D) electrodes, which are maintenance-free and can reduce the average splice loss up to 50 percent when compared to standard electrodes, says the company.

Corning introduces OTS-600

Corning Cable Systems LLC, part of Corning Incorporated's Telecommunications segment, introduced its new OTS-600 Series optical sources, meters, testers, and kits with data storage capabilities. Designed with ease of use as a top priority, the series of units maintains all the functionality one expects from an optical tester.

Corning Cable Systems' OTS-600 Series units have data storage for 10,000 results, USB data transfer interface, and a video inspection probe port. Both the OT-600 and OS-400 units

come standard with a 650nm visual fault locator (VFL) for convenient troubleshooting of optical networks. Ease of use has been achieved using a large color LCD screen, soft-key menus, and a testing wizard.

The OTS-600 Series features an intuitive certification wizard that takes the user step-bystep through testing. During the testing, the results are shown in tabular format, making it easy for the user to view results. The table conveniently shows any saved data for a specified fiber, making reviewing and updating results simple and efficient.

The OTS-600 Series comes with OTS-View reporting software for creating comprehensive certification reports. The software allows the user to save, upload, manage, and print reports. The software automatically transfers the unit model, serial number, date tested, and other data from user input fields. The output of the report can be printed or stored electronically in HTML format for viewing with any Web browser, CSV format for viewing with MS Excel, or TXT for viewing with a document editor.

The OTS-600 Series comes ready for connector inspection with a built-in video probe port and software. The video inspection probe (VIP) allows for the inspection of a fiber-optic connector's end-face quality. The resulting images can be used as documentation of endface quality and cleanliness.

Cube Optics touts LAN WDM grid mux for multiwavelength 100G transceivers

Cube Optics says it has successfully manufactured what it claims are the world's first LAN WDM grid passive optical multiplexers.

Faced with constantly increasing bandwidth in LAN, SAN, and metro applications, network operators, datacenters, enterprises, and ISPs are demanding higher-speed optical interfaces.

To meet those needs, the IEEE High Speed Study Group is in the process of setting new standards for 100Gbps fiber-optic transceivers.

At high data rates, a serial transport even over relatively short distances (10 to 40km) is not possible with current electronics; the transceivers will need to optically multiplex several lower bit streams. The new standard for pluggable transceivers is anticipated to multiplex 4 times 25Gbps optically to form a 100Gbps transmission. To enable the integration of four laser diodes, four PIN detectors with the corresponding multiplexers and demultiplexers into a space-constrained pluggable transceiver, miniaturized multiplexers are the enabling factor. The wavelengths that will be used are summarized as the LAN WDM grid, an 800GHz grid in the 1310nm band.

Cube Optics AG says it has now built the first multiplexers in the so-called "zig-zag" directbounce design, which enables the needed miniaturized size and the 800GHz LAN WDM grid. It features 400GHz pass bands for the center wavelengths of 1295.56/1300.05/ 1304.58 and 1309.14nm. The insertion loss does not exceed 1.5dB, while adjacent channel isolation is above 30dB.

According to CUBO, this design is directly transferable from the existing ITU standardized CWDM grid to the much narrower LAN WDM.

"The design, set-up, and assembly of the first LAN WDM grid muxes was realized in only eight weeks, and we are very happy that already at the first try we could prove an outstanding performance," contended Dr. Thomas Paatzsch, Cube Optics' COO.

SENKO introduces dry cloth cleaner

SENKO Advanced Components recently introduced the Smart Cleaner, a dry cloth cleaner specifically designed to clean single fiber connections residing in an adapter, faceplate, or bulkhead.

The dust cap acts as an adapter for cleaning unmated connectors, and its

extendable tip reaches recessed connectors. Made out of antistatic material, the Smart Cleaner is ideal for working in sensitive environments and can be used for 525+ cleanings, say company representatives. The Smart Cleaner is simple to use and highly effective at removing oil and dust contaminants that can negatively affect optical performance.

Tips for SC, FC, ST, LC, MU, MPO, and hardened connectors are available.

Telect's modular outdoor enclosures enable flexible configurations

Telect, a supplier of connectivity, power, and equipment housing products, recently launched a line of modular outdoor enclosures engineered to bring a high level of flexibility and versatility to outside plant (OSP) applications. The company says it has engineered the enclosures to function in a broad range of communications network environments and applications.

Based on a standard footprint (66x30x30inch), the Standard Telect Modular Enclosure (TME) provides 32 rack units of interior space for a variety of equipment. Users can choose from frame, top panel, door, hatch, side panel, and mounting rail options to handle all types of electronic equipment, along with power gear, cooling components, and more. Accessories are available to finish the installation.

Modular side panels can be removed from the enclosures to simplify expansion and scalability. Change is a matter of retrofitting a door, hatch, or side panel, rather than replacing the entire enclosure as required with traditional cabinets, says Telect. Modularity also provides the advantage of being able to stock components in a "mix and match" fashion and assemble enclosures as needed, helping to better manage capital expenditures, inventory, and overall costs.

The design is also engineered to key industry standards, helping to ensure reliable long-term performance. Telect also offers a 45RU enhanced modular enclosure and a compact 22RU enclosure for lower-capacity installations.

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CommScope Enterprise Solutions' ReadyPATCH systems simplify installation

CommScope Enterprise Solutions, a division of CommScope Inc., announced the

dual release of its Uniprise ReadyPATCH fiber system and Uniprise ReadyPATCH Cu copper system for datacenters in the North American region. The company says the preterminated fiber and copper cabling systems, respectively, are designed to present hassle-free installation in a fraction of the time required by traditional implementation methods.

The ReadyPATCH fiber system combines preterminated, factory-tested hardware and backbone trunk cables with ruggedized MPO-single fiber fanout patch cords, array cords, and standard fiber patch cords. The product enables fibers to be ready for immediate service.

Also, the fiber system comes with the option of using Uniprise's Keyed Fiber LC connectors and adapters for enhanced network security, helping to reduce infrastructure infiltration from unauthorized connections. In addition, the ReadyPATCH fiber system brings parallel optics capabilities to datacenters wanting to evolve toward faster network speeds over time.

According to the company, both ReadyPATCH systems are applicable in horizontal, backbone, and switch applications and throughout the datacenter.

"We design our preterminated solutions so that our Uniprise customers can finish installations quickly and return back to network normalcy in no time," said Luc Adriaenssens, senior vice president, research and development and technology at CommScope Enterprise Solutions.

Optelian expands tunable optical transport portfolio

Optelian announced the expansion of its LightGAIN tunable optical transport portfolio.

The Optelian RGN-10GXT is a multirate optical regenerator, tunable over the full C band of ITU channels. It supports short-, long-, and extended-reach applications over single-mode and multimode fiber. The client interface

provides flexibility through 10-Gigabit small form factor pluggable (XFP) optics.

The RGN-10GXT provides 3R operation (reshape, regenerate, and retime) from 9.95 to 11.3Gbps. The built-in electronic dispersion compensation (EDC) enables reach performance up to 100km, say company representatives.

As part of LightGAIN, the unit mounts in any of the family's active shelves and can operate standalone or under network management. To support standalone operation, the unit provides alarm relay contacts and intuitive status and configuration access via a front panel graphic display, touch pad controls, and LEDs.

Also announced, the Optelian RGN-3GST is a multirate optical regenerator, tunable over the full C band of ITU channels. The client interface provides flexibility through small form factor pluggable (SFP) optics. Both 3R (reshape, regenerate, and retime) and 2R (reshape and regenerate) operation are configurable, with data rates from 10Mbps to 2.7Gbps.

The unit mounts in any of the family's active shelves and can operate standalone (alarm relay contacts) or under network management. The unit provides intuitive status and configuration access via a front panel graphic display, touch pad controls, and LEDs.

PANDUIT launches PANVIEW iQ System

PANDUIT introduced what it claims is an industry-first physical infrastructure management system that automates the documentation of physical-layer connectivity and provides intelligent patch-field management without the need for additional rack space.

The PANDUIT PANVIEW iQ System consolidates all management hardware into innovative Panel Managers and Expansion Modules, which snap into the back of PANVIEW iQ Patch Panels, say company representatives. A functional keypad interface unit on the front of the patch panel permits initiating patch cord

tracing and diagnostic navigation without the need for dedicated fixed placement or handheld controllers. This design enables organizations to cost-effectively scale their installations as well as conserve valuable rack space, notes the company.

Furthermore, the company says its PANDUIT Physical Infrastructure Manager Software is a Web-based application that offers robust performance functions, including automated documentation of network connectivity, change notifications, asset management and reporting, virtual server mapping, and work order management functions. An application program interface (API) built into the software allows integration between the PANVIEW iQ System and familiar third-party applications.

Financial, technology, and services company LaSalle Solutions is currently integrating the PANVIEW iQ System into its service portal. "In today's complex IT environments, we see PANVIEW iQ's ability to manage the assets and move/add/change activity key to a successful operation - not to mention the advantages to compliance and security," reported Steven Robb, vice president and general manager of LaSalle Solutions. As a customer service-oriented company, Robb said, "We manage assets and contracts to some of the largest organizations in the world. By incorporating PANVIEW iQ into our business, we are streamlining our process and have the potential to increase our levels of service and customer satisfaction."

JDSU introduces fiber-optic inspection, cleaning and testing kits to prevent leading cause of network downtime

JDSU announced the release of all-inone fiber-optic test kits, providing network technicians with a simple way to avoid one of the leading causes of network downtime: contaminated, or "dirty," fiber. Based on its recognized best practice to "Inspect Before You Connect," JDSU provides all of the tools necessary to inspect, clean, and perform power or attenuation measurements on fiber-optic connections in easy-to-use kits to prevent costly network damage during installation, qualification, and troubleshooting.

"Working with service providers worldwide, we believe that fiber contamination is the number one source of costly truck rolls and optical network impairment," said Steve Lytle, general manager in the JDSU **Communications Test and Measurement** business segment. "Inspecting with a kit that contains all the necessary tools before you connect enables technicians to conveniently inspect both sides of an optical connection, clean it if necessary, and conduct the required optical testing to ensure the integrity of the network." JDSU inspection, cleaning, and test kits are designed specifically to meet the needs of today's fiber applications and environments, including FTTx, LAN/WAN, and datacenters, found in both cable and telecommunications networks. The kits include JDSU video fiber microscopes, optical cleaning tools, PocketClass or SMART optical light sources and optical power meters, and a visual fault locator (VFL). The kits also include a wide selection of Westover precision tips for the video fiber microscope and a collection of fiber-optic patch cords for connecting to the system under test.

Fiber inspection and cleaning are critical components in a comprehensive fiber deployment and operation strategy. Proactive inspection prior to network testing and installation reduces downtime, optimizes signal performance, and protects components from costly damage.

Sumitomo Electric introduces SFP 6G Series

Sumitomo Electric Industries Ltd. has introduced a new SFP 6G Series of fiber-optic transceivers for use in a wide range of network equipment applications.

The SFP 6G Series is part of the SFP transceiver family, which is fully compliant with IEEE802.3ae, SONET/SDH, Fibre Channel, and SFP multisource agreement specifications. The SFP 6G Series is manufactured at Sumitomo Electric Photo-Electronics Components (Suzhou) Ltd. (SPEC) in China, providing global customers with lead-time optimization, according to the company.

The new SFP 6G Series began shipping in April 2008. ExceLight Communications markets the devices in North America.

Sumitomo Electric says it will continue to expand SPEC manufacturing capabilities to support multiple products for production volumes.

EZchip Technologies Ltd. samples NP-3 NPU

EZchip Technologies Ltd., a LanOptics Ltd. company, said it has begun shipping samples of its NP-3, 30-Gigabit network processor to customers. The NP-3 is a scaleup of EZchip's NP-2 network processor, designed to provide higher performance and an enhanced feature set for Carrier Ethernet applications.

The NP-3 is manufactured in a 90nm silicon process and is pin and software compatible with the NP-2 to offer an easy migration path. The NP-3 is available in lead and lead-free (Pb-free) packages (RoHS compliant) and in commercial and industrial temperature grades.

EZchip's NP-3 provides 30-Gigabit throughput and features three 10-Gigabit ports, integrated hierarchical traffic management, and dedicated hardware for Ethernet and MPLS OAM processing offload. Like EZchip's NP-2 network processor (now in production), the NP-3 targets mainly Carrier Ethernet switch and router applications.

The use of the 90nm silicon process offers a significant performance increase, says EZchip. Architecture and algorithmic enhancements further boost the NP-3 performance to provide large processing headroom and a total throughput of 30Gbps, the company adds.

EZchip asserts the NP-3 is being designed by customers into a variety of networking equipment, including edge routers, metro and aggregation Switches, GPON OLTs, and Ethernet-to-SONET/SDH switches. EZchip provides customers with reference source code to implement a variety of applications such as L2 switching, Q-in-Q, PBT, VPLS, MPLS, and IPv4/IPv6 routing.

Optelian enhances LightGAIN network management

Optelian announced two new network management line cards for its LightGAIN Optical Transport Systems.

According to the company, the Optelian MGT-100 management card provides configuration, alarm report monitoring, and management of all LightGAIN cards in a shelf. Local shelf configuration and commissioning is supported through a standard DB9 serial port, and an intuitive graphical user interface is provided through Optelian's ONM-200 Optical Network Manager software application.

The new MGT-OSC card provides an optical service channel (OSC) in addition to its network management functions of alarm reporting, end-to-end provisioning, optical layer fault management, optical layer maintenance tools, and software downloads. The standard OSC operates at 1510nm, but pluggable transceivers allow the use of any OSC wavelength compatible with Optelian's MDX passive family. The MGT-OSC is ideal for remote site management — including remote line amplifier sites, for example — as it provides full operations access. sav company representatives.

The MGT-100 and MGT-OSC each mount into a single slot of the LightGAIN 6140, 5140, and 3060 optical transport system platforms.

Zhone announces MDU solutions

Zhone Technologies Inc., a provider of multiservice access solutions, announced that Quebec CLEC Maskatel has selected Zhone's next-generation MALCTM 1U POTS/DSL platform to provide high-speed services to multidwelling units (MDUs). Zhone's 1 rack unit (RU), 48-port configuration of voice and ADSL2+ ports with Ethernet uplinks is uniquely suited to the MDU play. Maskatel cited Zhone's robust platform, superior interoperability, and plug-andplay configuration as deciding factors against competing platforms.

Zhone's 1U MALC design provides the field-proven performance of Zhone's multiservice access platform with the latest in processor speeds and chipset evolution for both voice and data services. The product is fully triple-play compatible and comes with Zhone's new easy-to-use embedded Web browser, making the system simple to configure and activate.

"Our business is evolving rapidly in a very competitive market space," said Donald Dupuis, president of Maskatel. "We needed a vendor with cutting-edge abilities, based on a mature and stable platform that was price competitive and ready to go. We found Zhone to be the triple winner. The platform fits all of our needs right out of the box."

Auxora shows DWDM

Auxora Inc., a global supplier of wavelength management and control solutions for converged networks, showcased its outside plant DWDM products at SCTE Cable-Tec EXPO in Philadelphia June 25-27.

Auxora's outside plant DWDM products are completely passive, requiring no power or temperature control, and are capable of operating in the hardened environment from -40 degrees C to 85 degrees C. Auxora offers two types of outside plant DWDM products: 20channel 200GHz and 42-channel 100GHz. Auxora held live demos of a 42-Channel 100GHz DWDM module operating at -40 degrees C while being measured for all its specified optical parameters.

Auxora's outside plant DWDM products are based on patented bulk grating technology and are specifically designed for node-splitting of the HFC networks and for WDM-PON applications. "Some of our MSO customers have already realized tens and in some cases hundreds of thousands of dollars in cost savings using our products when compared to installing optical cable. In addition, the savings in time is a few hours vs. three to twelve months when compared to installing new cable," commented Grant Watkins, Auxora VP of sales.

"DWDM technology is a proven solution to meet the drastic increase in demand for bandwidth," said Dr. Xin Zhang, Auxora's president and CEO. "The introduction of Auxora's outside plant DWDM products demonstrates our commitment to bringing costeffective DWDM technology closer to the end users," concluded Dr. Zhang.

MERGERS AND ACQUISITIONS

Enablence acquires DuPont Photonics' PLCbased assets

Enablence Technologies, a supplier of fiber-to-the-home (FTTH) equipment for tripleplay residential and business services and optical components and subsystems for access, metro, and long-haul markets, announced that it has signed a definitive Asset Purchase Agreement with DuPont Photonics Technologies LLC, a wholly owned subsidiary of DuPont, to acquire certain assets of DuPont Photonics based in the Boston suburb of Wilimington, Massachusetts, subject to certain approvals, conditions, and consents. Concurrent with the agreement, DuPont will make a cash investment in Enablence.

Per the agreement, Enablence will issue common shares equivalent to \$9.5 million based on a 30-day average share price prior to the

closing of the transaction for the assets and the investment. All shares issued will be subject to the statutory 120 days hold period. The conditions are expected to be satisfied on or before July 24, 2008.

DuPont Photonics has developed a switching fabric using planar lightwave circuits (PLCs) that enable such devices as integrated reconfigurable optical add/drop multiplexers (ROADMs); 1xN, MxN, and NxN switches; and variable optical attenuators. All the intellectual property and associated know-how will be transferred to Enablence under the terms of the agreement.

"DuPont Photonics' product portfolio is complementary to our current component and subsystems offerings and is consistent with our vertical integration strategy that allows us to build on our core technology strength with higher value added products," explained Arvind Chhatbar, CEO of Enablence. "Our acquisitions allow us to focus on capturing innovative products and technologies that will help us solidify our Planar Lightwave Circuit (PLC) leadership position in the access, metro, and long haul markets. We are also pleased with the investment DuPont is making in Enablence. which will permit us to continue to build on the product portfolio we are acquiring from DuPont," he added.

Enablence also announced that it has made changes to its corporate structure and management team to expedite the integration of DuPont Photonics and other recent acquisitions. DuPont Photonics, Albis Optoelectronics, and ANDevices will now form the Optical Components and Subsystems Division of the corporation and be headed by Dr. Jacob Sun, who was previously the CEO of ANDevices. He will continue in his role as chief operating officer of Enablence and serve as president of Enablence's new Optical Components and Subsystems Division. Peter Cairoli, the president of Enablence's Albis Optoelectronics, will now head Enablence's

European operations to assist in streamlining the corporation's operations in that region.

Dan Hilton, the current vice president of finance and administration, has been given additional new responsibilities as senior vice president for corporate development and administration and will lead Enablence's integration efforts related to recent mergers and acquisitions. Ronald I. Benn, a Chartered Accountant with several years experience as CFO in several publicly traded and private companies, has been appointed as vice president of finance, taking over the finance function.

Tom Tighe, the former CEO of Wave 7 Optics, will lead Enablence's efforts in building our FTTx global deployments in his capacity as president of Enablence's new FTTx Networks Division.

Opnext to acquire StrataLight Communications

Opnext Inc. announced that it has reached a definitive agreement to acquire privately held StrataLight Communications Inc.

StrataLight Communications designs, develops, and manufactures 40Gbps line-side optical subsystems and advanced dispersion compensation modules for the communications industry. The company says it has shipped more than 2,500 units to its customers, which include many of the world's largest communications equipment manufacturers. StrataLight's subsystems, together with the optical systems of its customers, are widely deployed in several of the world's largest Tier 1 service provider networks, claim company representatives.

"Through this acquisition, Opnext will provide a complete 40G solution, which we believe will make us the market leader in 40G," contended Harry Bosco, president and CEO of Opnext. "Opnext is known for one of the most comprehensive and best performing product portfolios in the marketplace and now, by incorporating StrataLight's leading 40G line-side

products into our portfolio, we will be able to address both the line- and client-sides, significantly expanding our addressable market," he reports. "The combined expertise and technologies of Opnext's client-side and StrataLight's line-side products will position Opnext to address current and future 40G applications as well as the emerging 100G applications."

"With its industry-leading technology and solid customer base, StrataLight is well positioned as the leader in commercial deployment of 40G optical transmission subsystems," added Shri Dodani, president and CEO of StrataLight Communications. "Together with Opnext, we will be positioned to lead in high-growth and strategic segments of the market, leveraging Opnext's strength in module development, complementary product portfolio, and proven track record of delivering quality components."

As per the agreement, which has been approved by the boards of directors of both companies, Opnext will acquire StrataLight Communications for a total consideration of approximately 26.55 million common shares and \$30 million in cash. Based on Opnext's closing share price of \$5.35 on July 8, 2008, this represents a value of approximately \$172 million. Upon completion of the acquisition, StrataLight Communications' shareholders will own approximately 29 percent of the combined company.

The completion of the proposed merger is subject to the satisfaction of customary closing conditions, including the approval of the stockholders of Opnext and StrataLight and the receipt of required regulatory approval. Under separate agreements, the significant stockholders of Opnext and StrataLight holding a sufficient number of shares to approve the transaction have agreed to vote in favor of the transaction.

The combination is expected to close in the fourth calendar quarter of 2008.

NEC, Sumitomo Electric to acquire submarine cable manufacturer

NEC Corp. and Sumitomo Electric Industries, Ltd have announced the acquisition of OCC Holdings and its subsidiary OCC Corp., which manufactures fiber-optic submarine cables.

NEC and Sumitomo Electric will acquire 100 percent ownership of OCC Holdings from an investment fund managed by the Longreach Group. NEC will hold approximately 75 percent and Sumitomo Electric will hold approximately 25 percent of OCC Holdings. The acquisition is scheduled to be completed in July 2008.

"The need for broadband capacity is rapidly expanding on a global scale. In order to accommodate the growing worldwide demand, a broad range of new submarine cable systems are being planned and built. This acquisition represents a strategic advancement for NEC, one of the leading suppliers of submarine cable systems, and Sumitomo Electric, a leading supplier of optical products, that secures stable access to a rich source of high quality; highly reliable optical submarine cables. NEC is pleased to announce the acquisition of OCC, which assures the company of maintaining a dynamic leading presence in undersea industries, and promises to solidify each company's market position," said Masamichi Imai, executive general manager of the Broadband Networks Operations Unit of NEC.

"With the acquisition of OCC today by NEC and Sumitomo Electric, we aim to firmly establish our presence in the market of optical components and materials for the submarine fiber-optic network construction industry that is forecast to grow," said Dr. Shigeru Tanaka, managing director of Sumitomo Electric Industries, Ltd.

AFL Network Services announces North Star acquisition

AFL Network Services Inc. is expanding its telecommunications services business with

the acquisition of the assets and related business of North Star Communications Group Inc., currently headquartered in Birmingham, Alabama. The acquisition not only develops AFL's footprint into Alabama, Mississippi, California, and Nevada, but also enhances its service offering with North Star's expertise in outside plant engineering, say AFL representatives.

"North Star complements our existing business very well," noted Mike Booth, executive vice president of AFL Network Services. "Their skills in outside plant engineering and wireless services, together with the enhanced footprint, provide the capability for us to continue growing. Furthermore, we both share a strong commitment to quality and service."

With the addition of North Star's full scope of capabilities, including engineering, network operations and maintenance, construction management, cable broadband and wireless, and expertise in outside plant distribution design and route feasibility studies, AFL Network Services says it has a complete array of experienced professionals along with products and services designed to meet unique networking needs.

Finisar/Optium approved

Finisar Corporation and Optium Corporation announced that the US Department of Justice and Federal Trade Commission have granted Finisar early termination of the Hart-Scott-Rodino (HSR) waiting period in conjunction with the proposed combination of the two companies. The merger remains subject to satisfaction of other conditions, including approval of the stockholders of both Finisar and Optium.

On May 16, 2008, Finisar and Optium jointly announced that they had entered into a definitive agreement under which the two companies will be combined through an all-stock merger, creating the world's largest supplier of optical components, modules, and subsystems

for the communications industry. The combined company will take advantage of Finisar's leadership position in the storage and data networking industries and Optium's leadership position in the telecommunications and CATV industries.

On June 30, 2008, Finisar filed with the Securities and Exchange Commission its annual report on Form 10-K for its fiscal year ended April 30, 2008. Finisar expects to file with the SEC a registration statement on Form S-4 containing a Joint Proxy Statement/Prospectus relating to the proposed combination within approximately the next two weeks, and Optium plans to simultaneously file with the SEC the same Joint Proxy Statement/Prospectus.

FTTX

Suo Cable Net taps Alcatel-Lucent for Japanese GPON

Suo Cable Net, a Japanese cable TV operator, has selected Alcatel-Lucent to design, integrate, and deploy a GPON. The new network, which will enable Suo Cable Net to begin rolling out high-speed Internet and video services in July, will be the first commercial GPON deployment in Japan, the systems house says.

With more than 10 million FTTH subscribers, Japan is one of the most advanced countries in terms of high-speed broadband coverage.

While most initial deployments used BPON technology, GE-PON has been the technology of choice for the most recent generation of deployments. GPON supports downstream capacities of up to 2.5Gbps, more than twice the 1Gbps downstream bit rate standard GE-PON provides.

"With Alcatel-Lucent's industry-leading GPON solution, we will be able to offer our customers broadband capacities that support the delivery of high-definition TV and high-speed Internet services," said Tetsuaki Kanai, vice

president of Suo Cable Net. Suo Cable Net provides cable TV services in Yanai City.

Alcatel-Lucent will deploy its 7342 Intelligent Services Access Manager Fiber-tothe-User (ISAM FTTU) equipment, a product line complemented by a wide range of optical network terminals (ONTs) that support FTTH, fiber-to-the-building (FTTB), and mobile backhaul.

"We are very excited to be part of the first-ever commercial deployment of GPON technology in Japan," said Frederic Rose, president of Alcatel-Lucent's activities in Europe, Africa, and Asia. "FTTH architectures are clearly the end-game of any planned or ongoing access network transformation. GPON stands out as the optimal and most cost-effective FTTH technology option — thanks to its stability, scalability, flexible management and operations, as well as its guaranteed evolutionary path. GPON will allow Japanese end users to truly experience the power of next-generation tripleplay services."

Nokia Siemens Networks announces plans to prioritize wireline broadband access R&D investments

An enormous hunger for bandwidth is driving the fixed broadband access networks and will lead into a hundredfold traffic growth until 2015. This development and the operators' need for revenue growth are driving Nokia Siemens Networks' investment in fiber-based next-generation optical access (NGOA) technologies. At the same time, the company plans to limit its investment into existing Gigabit passive optical networks (GPONs) due to the fact that the mass-market rollout of fiber-to-thehome (FTTH) is unlikely in the short term.

Nokia Siemens Networks plans to focus on DSL and next-generation optical access (NGOA) technology and limit its investment in existing Gigabit passive optical networks (GPONs). In parallel, NSN will develop nextgeneration optical (NGOA) technologies aiming to take a leading role in the future FTTH market. Nokia Siemens Networks will also continue its fixed access investment in DSL by introducing new products addressing the increasing deployment of FTTC/B.

"Fiber is progressing closer to the home with the focus today on fiber-to-the-curb or building with last mile connectivity based on proven DSL technology," said Christoph Caselitz, Nokia Siemens Networks chief market operations officer. "Our view is that mass market roll out of fiber-to-the-home is unlikely in the short term due to regulatory uncertainty and the operator's business cases. This will be different with the NGOA technology, where we will target to take a leading role."

Verizon FiOS TV offers more channels

Verizon FiOS TV has launched 22 new channels, including 15 additional high-definition (HD) channels. FiOS TV customers in Oregon now have more than 440 HD choices available at any time, with a total of 42 HD channels and more than 400 HD video-on-demand (VoD) titles offered each month.

The first in a series of channel additions coming this year to Oregon, new content includes sports favorites like the Big Ten Network and Setanta Sports and new HD channels like CNN, CNBC, Bravo, and USA. The next series of content additions will include more HD channels, including three new Starz channels and two new Showtime channels.

Verizon will continue expanding its FiOS TV channel lineup this year, with a major focus on HD content. By year-end, Verizon will offer all available major HD programming.

"High-definition and sports content are among the most popular TV programming, and we're bringing the best of both to FiOS TV," said Terry Denson, vice president — FiOS TV content and programming.

"The addition of new HD and sports channels, along with the new multicultural content and more, is part of our commitment to

lead the industry in the scope and quality of our programming."

BUSINESS

CommScope consolidates

CommScope Inc., a provider of infrastructure solutions for communications networks, has initiated plans to further optimize its global manufacturing network as part of the company's goal to take better advantage of facilities, reduce costs, and enhance its longterm competitive position in markets around the world.

In separate actions, CommScope expects to consolidate certain antenna and cable production within its Antenna, Cable and Cabinet Group and Enterprise segments into other existing facilities. The changes as proposed, some of which are subject to employee consultation processes, would affect the following facilities:

- England: Microwave antenna operations at three locations in the Stratford area would be shifted to existing Andrew antenna manufacturing facilities or outsourced. This would result in closure of the Stratford, Bidford, and Long Marston locations.

- Czech Republic: Base station antenna production in Brno would be discontinued and moved to existing Andrew antenna plants or outsourced. In addition, the connector, cable, and accessory assembly operations in Brno are under consideration for relocation to other Andrew locations or outsourcing. Other operations in Brno would not be affected.

- Australia: Enterprise cabling operations in Brisbane will be discontinued by early 2009, with production moved to other CommScope facilities.

- Scotland: Machine shop operations in Lochgelly would be consolidated into other Andrew facilities or outsourced. Cable reroll processes and some support functions also are

being reviewed. Other operations in Lochgelly would not be affected.

The proposed changes are expected to result in a net reduction of at least 85 employees across the company. In total, more than 700 existing jobs could be affected by these planned actions, with the majority of these positions potentially relocated to other existing company locations.

"We regret that many of our people may be impacted. However, we can better serve and secure the long-term interests of our global employee population, as well as our customers and shareholders, by reducing costs whenever possible and improving utilization of our extensive capabilities in response to regional market demand," said Brian Garrett, CommScope president and chief operating officer. "Combined with our previously announced actions that affected manufacturing locations in Belgium, Brazil and Italy, these proposed moves are expected to enable CommScope to have a much more highly efficient and properly utilized manufacturing footprint around the world. We remain committed to global competitiveness and excellence in everything we do, especially serving customers."

Avanex approves reverse split

Avanex Corporation, a provider of telecommunication components that enable next-generation optical networks, announced that its board of directors, pursuant to previously obtained stockholder authorization, approved a reverse split of its common stock at a ratio of 15-for-1, with a planned effective date of August 12, 2008. Accordingly, as of the effective date, each 15 shares of issued and outstanding common stock and equivalents will be converted into one share of common stock. The reverse stock split will be effected by the filing of a Certificate of Amendment to the company's Certificate of Incorporation with the Secretary of State of the State of Delaware.

"Avanex is taking this action to encourage interest in our stock on the part of certain brokerage houses and institutional investors and to be in a better position to continue to meet the listing criteria for trading on the Nasdaq Stock Market," said Giovanni Barbarossa, the company's interim CEO. "Following the reverse split, our stock will likely trade at a higher nominal price level," said Barbarossa.

MRV Fiber Driver line certified for rural telecom networks

MRV Communications Inc., a provider of products and services for out-of-band networking, optical transport, metro Ethernet, and fiber-optic components, says its Fiber Driver product line has qualified for technical acceptance based upon the standards of the US Department of Agriculture (USDA) Rural Utilities Service (RUS), making it eligible to serve as the basis of network infrastructure in remote areas.

RUS oversees a multibillion-dollar budget designed to encourage the availability of telecommunication services in rural or underserved areas.

This RUS endorsement means that rural independent telephone operating companies (IOCs) will qualify for a subsidization of their fiber-optic transport rollouts if they deploy MRV's Fiber Driver products. To be technically certified, equipment must meet the USDA RUS's standards for a variety of hazards, including corrosion, weather, fire, earthquake, and vandalism.

"This RUS designation from the U.S. Department of Agriculture is extremely important, as it validates our Fiber Driver platform as a solution able to withstand the rugged conditions necessary for rural applications," said Noam Lotan, president and CEO of MRV Communications. "Like the rest of our carrier-class products, Fiber Driver has been tested under the harshest conditions and provides the reliability service providers need." The Fiber Driver optical multiservice product line provides services demarcation, media conversion, signal repeating, and fiber optimization, including coarse and dense WDM capabilities. Both managed and unmanaged products are available, including rack-mount, modular, and desktop systems. The products offer the flexibility of many combinations and system options for any type of optical or copper technology, covering virtually every protocol in use in networking today, says MRV.

FiberWork marks milestone

FiberWork Optical Communications has achieved the mark of 1 million kilometers of characterized optical fiber. The company has been accomplishing specialized services of optical fiber networks characterization and diagnoses for important telecom carriers, utilities, manufacturers, and system interaction companies all over the world. In the last work of the company, there were 18,000 kilometers of optical fiber.

Specialized optical characterization is essential for the project and implantation of optical transmission systems using DWDM (dense wavelength division multiplexing) as well as 10 and 40Gbps optical channels. This activity involves careful optical measurements in the fiber plant and compilation of optical parameters as chromatic dispersion, PMD (polarization mode dispersion), optical return losses, OTDR advanced analysis, and optical attenuation.

"Next-generation technologies, as 40Gbps, involves big challenges that request a much more accurate network characterization, besides demanding the analysis of new optical parameters," explained Elso Rigon, the company's services director.

Avanex Corporation announces termination of president and CEO and resignation of CFO

Avanex Corporation announced the termination of Dr. Jo Major from his position as president and chief executive officer, due to the

inability of Dr. Major and the board of directors to work together effectively. Dr. Major has also resigned from the board of directors. In addition, Avanex announced the resignation of Ms. Marla Sanchez from her position as senior vice president and chief financial officer.

Avanex also announced the appointment of Dr. Giovanni Barbarossa as interim chief executive officer. Dr. Barbarossa has worked at Avanex since February 2000 and has served as senior vice president and chief technology officer since May 2002. Previously he ran the Active Component Business Unit. Dr. Barbarossa joined Avanex prior to its initial public offering and has been a member of the executive team for over six years. Through his tenure at Avanex, which is the longest of any other officer at the company, Dr. Barbarossa has established longstanding relationships with customers and employees.

The board has begun a CEO and CFO search, and a subcommittee of the board has been established to review potential candidates. Mr. Paul Smith, a current member of the board, has also been appointed as non-executive chairman of the board.

"I would like to thank Jo, on behalf of our Board of Directors, for his contributions in taking the Company through a difficult transition period over the last several years. We look forward to continuing the solid execution of the Company's strategy," said Mr. Smith.

The departure of Dr. Major and Ms. Sanchez is not related to the company's operational performance or financial condition. The company is reconfirming its fiscal fourth quarter revenue guidance of between \$50.0 million and \$53.0 million. In addition, the company anticipates positive cash flow for its fiscal fourth quarter.

Mr. Smith has served on Avanex's Board since November 2007. He is currently president and CEO of PacketMotion Inc., a network security company. Prior to joining PacketMotion, Mr. Smith was chairman and CEO of Tasman Networks Inc., which was acquired by Nortel Networks Corporation. Prior to Tasman, Mr. Smith was vice president and general manager of the Telecom Division of New Focus Inc., which was subsequently acquired by Bookham Inc., and senior vice president of marketing and sales for Asante Technologies Inc.

EVENTS

MOST Forum 2008 announces conference program

The MOST Forum has announced the conference program for the international conference and exhibition on September 30, 2008, in the Liederhalle Cultural and Congress Center in Stuttgart, Germany, covering a broad field of topics with a wide range information on MOST infotainment technology. During their presentations the speakers will discuss MOST applications, experiences, and technologies concerning networking and system architecture, physical layer, compliance and quality aspects, series projects experience, MOST and other standards, and MOST in research and development.

"The MOST Forum provides an ideal venue to share ideas and experiences, and to discuss the latest news on this de-facto automotive infotainment standard," stated Prof. Dr. Andreas Grzemba, author of the MOST Book and professor at the University of Applied Sciences Deggendorf. "The objective of the MOST Forum is to bring together top professionals from the automotive electronics industry and academia to exchange information and results of recent work on systems, circuits, technologies, processes and applications."

The conference will provide a forum for a broad audience, from researchers, designers, engineers, and system developers, to purchasers and journalists, to the managers of the industries involved.

In the exhibition area, various companies will present their MOST solutions and

applications. Among the exhibitors will be the MOST Cooperation, presenting the MOST150 multimedia demo, Dension, Movimento, Ruetz System Solutions, SMSC, and others.

The MOST Cooperation is participating in the MOST Forum to help their member companies further disseminate the knowledge learned in over 10 years of intensive work. The cooperation's target is to provide a high-quality conference by encouraging the members to attend the conference and exhibit MOST solutions to share their experiences with MOST Technology.

On the evening of September 29, 2008, all participants are invited to join for the MOST networking event in Stuttgart. At 19.00, Dr. Christian Thiel, administrator of the MOST Cooperation, will inaugurate the MOST Forum. During the dinner, attendees will have the chance to meet influential people from the automotive electronics industry. Different media partners, as well as industry partner ZVEI (Electrical and Electronic Manufacturers' Association), are contributing their expertise and technology know-how.

Conference Program

- 8.00 Registration and Reception Coffee/Exhibition Opens
- 9.00 Opening and Welcoming Speech
- Keynote Speech: 9.15 Networking Vehicle Infotainment Systems with MOST (Dr. Alexander Leonhardi, Daimler)

MOST Networking and System Architecture

- 9.45 MOST150 the new Infotainment Backbone for Automotive Applications (Harald Schöpp, SMSC)
- 10.15 MOST150 Simulation Framework/Proposal for a MOST150/Ethernet Gateway Implementation (Andreas Schramm/ Richard Wurm, BMW)

- 10.45 Coffee Break/Networking/ Exhibition
- 11.15 H.264 Low-latency Video Compression in Automotive Applications (Ralf Schneider, On Demand Microelectronics)
- 11.45 **SoftMLB on the MPC5517** (Juergen Frank, Freescale)

MOST and Other Standards

- 12.15 Usage of AUTOSAR
 Diagnosis Modules in a MOST
 ECU (Paul Hoser, BMW Car IT)
- 12.45 Lunch/Networking/ Exhibition

MOST Physical Layer

- 14.15 Plastic Optical Fiber Coupling Sytems: A Novel Optomechanical Modelling Approach (Dr. Youri Meuret/Els Moens/Dr. Heidi Ottevaere/Prof. Dr. Hugo Thienpont/ Dr. Michael Vervaeke, Brussel University; Carl Van Buggenhout/Dr. Piet De Pauw, Melexis)
- 14.45 nanoStructuresTM Technology and Possibilities for the Next generation of Optical Fibers for Vehicular Applications (Dr. Claudio Mazzali, Corning Inc.)

MOST Compliance and Quality

- 15.15 Automotive Application Recommendation for MOST150 Physical Layer Components (Joerg Angstenberger/Dr. Viktor Tiederle, RELNETyX)
- High Quality System Integration (Georg Janker/Wolfgang Malek, Ruetz System Solutions)
- 15.45 Coffee Break/Networking/ Exhibition

MOST Series Projects Experience

 16.15 — Error Handling Strategies for a MOST Application Framework (Dr. Alexander Leonhardi/Andreas Vallentin, Daimler)

MOST Networking and System Architecture

- 16.45 AUDI Q5: Evolution of a MOST System Architecture (Uwe Hackl, Audi)
- 17.15 Conclusion and End of Conference
- 18.00 Exhibition Closes

For more information please see http:// www.mostforum.com.

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MARKET INTELLIGENCE

GPON sales up 33 percent in 1Q08

Communications market research firm Infonetics Research reports that the nascent GPON market posted healthy sequential growth worldwide in 1Q08, driven by service provider investments in broadband access networks to deliver bandwidth-intensive services such as IPTV bundled with voice and high-speed Internet services. Infonetics' report, "PON and FTTH Equipment and Subscribers," shows that during the same period, BPON equipment sales declined significantly and EPON sales dipped, together bringing the overall PON market down 3 percent to \$417 million worldwide in 1Q08. "Service providers increasingly turn to PON as the next generation of residential broadband access, primarily in areas where DSL service penetration has reached maturity and operators are looking to increase average revenue per user (ARPU)," said Mark Showalter, directing analyst for broadband networks at Infonetics Research.

Other report highlights

- The top 3 overall PON market share leaders maintained their positions in 1Q08, with Mitsubishi leading, followed by Tellabs and Hitachi;
- Between 4Q07 and 1Q08, worldwide GPON manufacturer revenue increased 33 percent and ports climbed 38 percent;
- Alcatel-Lucent retains 1st place in worldwide GPON revenue, followed ever more closely by Huawei;
- In 1Q08, worldwide Ethernet FTTH equipment revenue fell 6 percent sequentially but is expected to increase 75 percent by 1Q09, as operators in Asia continue using Ethernet in metro areas to connect apartment buildings and businesses.
 Updated quarterly, Infonetics' PON report

tracks PON equipment revenue and ports, including BPON, EPON, GPON, WDM-PON, and OLTs and ONTs with FTTH vs. FTTB splits; Ethernet FTTH equipment (CPE vs. service provider); and total FTTH equipment (CPE vs. non-CPE). The report also tracks PON, POTS, Ethernet, and DSL ports; and PON, PON FTTH, and Ethernet FTTH subscribers. The report provides worldwide and regional market size, worldwide market share, and forecasts. Companies tracked include Alcatel-Lucent, Allied Telesis, Alloptic, Calix, Carrier Access, Cisco, Corecess, ECI, Ericsson, FiberHome, FlexLight, Fujitsu, Furukawa Electric, Hitachi, Huawei, Mitsubishi, Motorola, NEC, Nokia Siemens Networks, Novera Optics, Occam Networks, PacketFront, Sagem, Samsung, Sumitomo, Telco Systems, Tellabs, UTStarcom, Wave7 Optics, World Wide Packets, ZTE, and others.

Fiber subs overtake cable in q1

The latest data from Point Topic reveal that in Q1 2008, fiber-optic broadband for the first time added more subscribers than cable.

While there were 2.5 million cable broadband subscribers added worldwide in the first 3 months of 2008, fiber grew by over 4.2 million users.

"It's a significant milestone for fiber-optic broadband, where it is available consumers will take fiber over other broadband technologies," said Oliver Johnson, Point Topic CEO. There have been doubts expressed that consumers will find additional speed necessary or attractive, but the evidence is that users value bandwidth. A significant factor in their choice of technology is price.

"If you look at the cost per megabit then DSL comes in at around \$20 per megabit per month taking global averages. Cable does better at roughly \$12 but they are both completely eclipsed by fiber where costs can get as low as 50 cents per megabit per month," continued Johnson. There are sizeable variations from country to country, region to region, and operator to operator, but a rule of thumb is that DSL can cost the consumer 15 times as much as fiber to get a megabit of bandwidth and cable is seven times as expensive.

The growth in fiber numbers is being driven by China, Japan, and South Korea, where cable and DSL are losing subscribers to the fiber technologies. In the US, UK, France, and Germany, low availability means low adoption.

"There are problems in the de-regulated markets when it comes to major infrastructure investment. Fiber deployment is expensive and in the US and Europe there are significant regulatory hurdles to overcome," said Johnson.

"It's difficult to persuade operators to make the sort of commitment needed when they can't guarantee their returns. In most western markets regulators frown on monopolies and it's very difficult to sanction government expenditure given the self-imposed legal frameworks. Without some form of centralised funding however it will be a long time before consumers in these markets get access to cheaper bandwidth," concluded Johnson.

China also continues to gain momentum in terms of broadband overall. At the moment it's still No. 2 in the world, after the USA, in terms of total broadband subscribers, but the gap continues to close.

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