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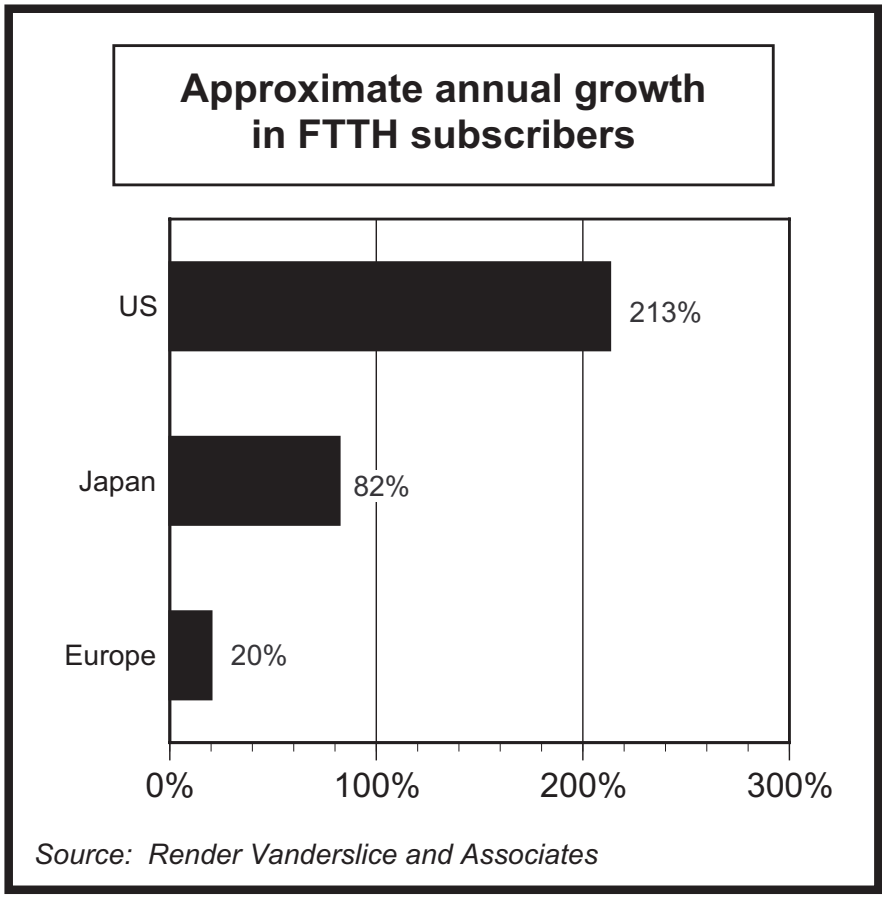

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POLICY

FCC decision speeds cable TV competition

The Federal Communications Commission took steps to speed the entry of new competitors into the cable television

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market by streamlining the local franchising process through which companies gain approvals to offer subscription television services. The following statement was issued by Susanne Guyer, Verizon senior vice president for federal regulatory affairs.

"Today's action will fast-forward the delivery of new choices, lower prices and better services to consumers. The FCC is standing up for consumers who are tired of skyrocketing cable bills and want greater choice in service providers and programming. Verizon has an aggressive schedule to deploy FiOS TV. This order will enable us to reach agreements with local franchise authorities more quickly so we can deliver the benefits of competition to consumers faster. The FCC has taken strong steps to increase consumer choice and spur investment in broadband and video deployment."

MERGERS AND ACQUISITIONS

Motorola to buy Tut

Motorola Inc. and Tut Systems Inc. announced that the two companies have signed a definitive merger agreement, under which Motorola will acquire all of the outstanding shares of Tut Systems common stock for $1.15 per share in cash. The transaction has a total equity value of approximately $39 million on a fully diluted basis.

Tut Systems provides carrier-class end-to-end digital video encoding, processing, and distribution products. Their solutions support MPEG-2 and MPEG-4 AVC video compression, local ad insertion, forward error correction, and real-time conditioning of video and audio. Today, more than 160 service providers worldwide deliver IPTV powered by Tut Systems' digital video distribution technology. The integration of Tut Systems' solutions with Motorola's digital video delivery solutions will expand Motorola's ability to help service providers deploy advanced video services over IP-, ATM-, or RF-based network architectures. Motorola currently has deployed 2,060 digital video networks and over 50 million digital video set-tops worldwide.

"This transaction brings together the telco-aware IPTV processing capabilities of Tut Systems with Motorola's proven video delivery expertise. Together, our combined portfolio will provide service providers with next-generation solutions for delivering rich video experiences into the connected home — and out into the world," said Dan Moloney, president, Motorola Connected Home Solutions. "We look forward to adding the great people, technology and video expertise of Tut Systems to the Motorola Connected Home Solutions team."

"Today is an exciting day for Tut Systems. Our stockholders will be able to receive value for their investment, while our employees, customers and strategic partners will benefit as we join together with Motorola, an established, global leader in architecting and deploying digital and IP video networks," said Sal D'Auria, president and CEO of Tut Systems. "Motorola's financial resources and customer relationships will enable us to address larger customer opportunities that were challenging as a smaller company. My team is committed to working closely with Motorola to ensure a rapid and seamless transition."

Upon completion of the transaction, Tut Systems will become a wholly owned subsidiary of Motorola and will be integrated into the Motorola Connected Home Solutions business. Motorola intends to maintain Tut Systems' operations in Lake Oswego, Oregon; San Diego, California; and Pleasanton, California.

The transaction is expected to be neutral to Motorola's earnings per share in the first year following closing, excluding certain non-cash charges relating to amortization associated with acquired intangibles and other one-time accounting and transaction-related costs. The transaction is subject to customary closing conditions, including regulatory approvals and the approval of Tut Systems' stockholders, and is expected to be completed in the first quarter of 2007.

Level 3 to acquire SAVVIS Content Delivery Network

Level 3 Communications Inc. announced that it has signed a definitive agreement to acquire the Content Delivery Network (CDN) services business of SAVVIS Inc. Under the terms of the agreement, Level 3 will pay $135 million in cash consideration to acquire certain assets, including network elements, customer contracts, and intellectual property used in SAVVIS's CDN business. The purchase price is subject to certain customary post-closing working capital adjustments.

SAVVIS's CDN services business, based in Thousand Oaks, California, with approximately 50 employees and over 100 customers, provides solutions that improve performance, reliability, scalability, and reach of customers' online content. Initially developed in 1996 as Sandpiper Networks, the division developed, deployed, and operated the world's first content delivery network. It has a globally distributed infrastructure in more than 20 countries.

"The acquisition of SAVVIS's CDN services business will enable Level 3 to better address the increasing opportunity presented by rich media applications such as video, Web 2.0 applications, multiplayer online gaming and software as a service over the Internet," said Kevin O'Hara, president and chief operating officer of Level 3. "We are looking forward to welcoming the pioneers of CDN to our team.

"The largest customers of CDN services rely on a combination of capabilities to support their businesses. These include services like CDN, IP transit, wavelengths, metro transport, and colocation. Upon completion of this transaction, Level 3 believes that it will be the only CDN services provider with a single source, full portfolio of end-to-end content distribution solutions, and will be in a unique position to offer a range of building blocks to meet these customers' needs.

"Level 3 already has a strong brand and capabilities in video distribution through its Vyvx business. With native CDN capabilities and with Level 3's highly scalable, industry-leading IP backbone, we believe that Level 3 will be able to bring additional value to all video-centric companies by delivering video in a more intelligent and comprehensive way to a broader range of destinations.

"This acquisition does not require the type of physical integration associated with the metro and backbone transactions we announced earlier this year. We are confident in our ability to incorporate this key capability into our portfolio."

SAVVIS's content delivery customers include some of the largest enterprises in the world, including Microsoft.

"As we grow our online services business, stability and control over our network infrastructure becomes increasingly important to deliver great experiences for our customers, partners and advertisers," said Arne Josefsberg, general manager of Global Foundation Services at Microsoft. "We look forward to a continued relationship with Level 3 as they embark upon this next phase of their network evolution."

SAVVIS's CDN business had approximately $15 million in revenue for the nine months ending September 30, 2006.

Closing is subject to customary conditions, including receipt of Hart-Scott-Rodino approval. Closing is expected to occur in the first quarter of 2007.

CONTRACTS

ZTE wins WDM deal

ZTE has exclusively won a contract to build five national WDM trunk lines for China Netcom as part of the operator's 2006 long-haul transmission network improvements. This agreement follows the successful construction of five national trunk lines for China Netcom in 2005.

The five new national trunk lines will cover 10 Chinese provinces. With deployment of the network, China Netcom will achieve greatly increased network capacity on the backbone layer and improved operational capability, enabling it to compete more strongly in the highly competitive Chinese market.

ZTE will supply its Unitrans series ZXWM M900 DWDM equipment to build the network. With the adoption of multiple industry-leading technologies such as ERZ, large-power EDFA, enhanced FEC, dynamic power equalization, distributed dispersion management, automatic compensation of line attenuation, and Laman amplifiers, the equipment solves problems such as long-term wavelength stability in large-capacity and long-haul transmission, low signal-to-noise ratio, and diversified spares. This enables single-span transmission over 300km and super-long-haul non-REG transmission over 5000km, delivering high reliability and security over the entire network.

ZTE optical networking products have been deployed by 130 operators in over 70 countries. According to the latest statistics from telecoms industry analyst firm Ovum-RHK, at the end of June 2006 ZTE's long-haul DWDM system installations ranked in the top three in the world, and ZTE was the fastest-growing mainstream optical network vendor between 2004 and 2006.

Huawei named supplier of WDM optical metropolitan network for Telecom Italia

Huawei Technologies Co., Ltd. ("Huawei"), a provider of next-generation telecommunications network solutions for operators around the world, announced that it has been selected by Telecom Italia to carry out Wavelength Division Multiplexing (WDM) technology projects. The first Chinese telecommunication equipment supplier selected for Italian telecom programs, Huawei was awarded the contract to supply optical transport technology after the company underwent Telecom Italia's stringent evaluation process.

In addition to Telecom Italia, Huawei's other successful partnerships with European mainstream operators include British Telecom, where Huawei is a preferred vendor in the transport and MSAN domain for the 21CN program; and a CWDM/DWDM project for Dutch operator KPN, in which Huawei is the exclusive vendor..

"We are excited to be part of Telecom Italia's rollout plan for WDM optical metropolitan networks," said Mr. Qiao Xiaoping, managing director of Huawei Italy. "Although Huawei and Telecom Italia are working together in the optical transport domain for the first time, Huawei's leading technology in optical network, rich experience in commercial development of equipment and rapid response will allow us to provide high-value, customer-focused solutions."

Huawei's Metro WDM products provide abundant interfaces, which can support services access and aggregation with multiple data transfer rates and different protocols. The unique GE ADM technology guarantees the flexible grooming of GE service on a WDM network, and saves wavelength and fiber resources. Based on the company's leading-edge technologies and experience in commercial application of products worldwide, the Huawei Metro WDM solution has become a popular choice for constructing an efficient transport network for IP DSLAM, IPTV, and GE VPN, which is widely deployed in over 10 countries and regions.

Qwest provides voice, data networking for Newspaper Agency Corp.

Qwest Communications International Inc. announced it has signed a two-year voice and data networking agreement with the Salt Lake City-based Newspaper Agency Corporation, the printing arm for the Deseret Morning News and The Salt Lake Tribune newspapers. The Newspaper Agency manages the printing, circulation, and business functions of the two editorially independent local newspapers.

Qwest will provide the Newspaper Agency with long-distance services and Qwest metro optical Ethernet, Qwest's Ethernet Local Access (ELA) solution. With these services, Qwest will provide a high-speed connection to the Deseret Morning News, the Newspaper Agency, and The Salt Lake Tribune using Qwest's reliable network to transfer large amounts of complex data between the locations. Because of the flexibility and scalability of Qwest's services, the Newspaper Agency can use only the amount of bandwidth it needs at a certain time.

"The Newspaper Agency is a longtime Qwest customer, and transitioning to an Ethernet solution, such as Qwest metro optical Ethernet, will allow the company to better serve customers," said Tom Richards, executive vice president, Qwest business markets group. "Increased bandwidth and improved Internet access will allow the Agency to become more interactive and more effectively communicate with the Deseret Morning News and The Salt Lake Tribune as well as with its customers."

Qwest metro optical Ethernet service combines the power of Ethernet and optical technologies across MANs to provide low-cost, scalable, and secure bandwidth. Metro optical Ethernet provides local area network (LAN)-to-LAN connectivity between two or more customer locations within a metro area, and is suitable for data applications that include data file transfer, Internet access, off-site data storage, and access to hosting.

BUSINESS

Ditech Networks receives Nasdaq notice regarding delayed filing of Form 10-Q

Ditech Networks Inc. announced that it has received a Nasdaq Staff Determination stating that the company is not in compliance with Marketplace Rule 4310(c)(14) because it has not timely filed its Quarterly Report on Form 10-Q for the quarter ended October 31, 2006, and, therefore, that its securities are subject to delisting from The Nasdaq Global Market.

Ditech Networks has requested a hearing before a Nasdaq Listing Qualifications Panel to review the Staff Determination. Pending a decision by the Nasdaq Listing Qualifications Panel, Ditech Networks' common stock will remain listed on The Nasdaq Global Market. There can be no assurance that the Panel will grant the company's request for continued listing.

Pacific Internet launches Data Centre Service in China

Pacific Internet Limited, Asia-Pacific's largest telco-independent Internet communications service provider by geographic reach, announced that its wholly owned subsidiary, Pacific Internet (Hong Kong) Limited, has launched a Data Centre Service in China. The service is specifically tailored to serve Hong Kong enterprises with cross-border communications needs across the Chinese mainland, Hong Kong, and the Asia Pacific region.

The launch of Pacific Internet's Data Centre Service has successfully bridged Internet interoperability between the Southern and Northern parts of China, facilitating data transfer and secure seamless connections within the Chinese mainland and the rest of the world.

"Regular downtime of company Web sites and slow data transfer can cost millions of dollars in losses to companies with bases in China," Eddy Kuk, managing director of Pacific Internet (Hong Kong) Limited, said. "Pacific Internet's China Data Centre Service comes with 'single connection but multiple Internet gateways options', which means customers' servers are now directly connected to the local carriers in the Southern and Northern parts of China, Hong Kong and Pacific Internet's robust Asia Pacific infrastructure. Data can then be transmitted over the gateways and connected to the rest of the world without interruptions."

Enterprises with multiple branches located in Hong Kong and the Chinese mainland can now house their mission-critical data on Pacific Internet's dedicated servers in China and avoid data transmission delay due to traffic congestion. Pacific Internet also offers an Intelligent Domain Name Service (DNS) service, which ensures that customers' Web sites hosted in Pacific Internet are visited via the fastest path judged by the visitors' locations and the traffic situations to the server. Customers can make use of their bandwidth more effectively and attain the best browsing speed and experience for their Web sites. With Pacific Internet's China Data Centre Service, visitors can boost browsing speed by up to 15 times.

Pacific Internet's China Data Centre Service currently covers 10 POPs, including Shenzhen, Beijing, Shanghai, and other cities in the Pearl River Delta, where most of Hong Kong enterprises' branch offices and factories in China are located. They can now empower their businesses through this best-in-class co-location service.

Corporate customers can have different gateway solution options, choosing either one single gateway with China Telecom or China Netcom; a two-gateway solution connected across the two incumbents within the Chinese mainland; or a three-gateway option, which also further connects to Pacific Internet's backbone in addition to local carriers in China. Customers can enjoy further peace of mind, with data stored under secured and environmentally controlled rack housing, backed by professional 24X7 physical access and network monitoring.

Pacific Internet's president and CEO, Mr. Phey Teck Moh, welcomed the launch of the new Data Centre. "Connecting businesses from Hong Kong, China, and across the region, is a service that Pacific Internet is uniquely placed to deliver," he said. "Extending our services both geographically, and by creating additional value for our clients, is key to our business growth plan over the next five years. We expect this initiative to contribute significantly to our footprint expansion, as well as bring new levels of sophistication to our customer service offerings."

NEW PRODUCTS

Amedia Networks deploying the Fujitsu MPEG encoder and decoder technology in new wireless A/V transmitter and receiver

Fujitsu Microelectronics America (FMA), a provider of MPEG-based entertainment technology, announced that Amedia Networks Inc., a provider of next-generation residential media gateways, is using the Fujitsu MPEG encoder and decoder technology in its new wireless audio-video transmitter and receiver systems. The new systems will be demonstrated at the 2007 International CES January 8-11 in Las Vegas, Fujitsu booth number 70809. Fujitsu and Amedia also plan to complete a high-definition (HD) solution by using the new H.264 (High Profile, level 4.0) CODEC device. The Amedia design will also be demonstrated in the Fujitsu booth.

Amedia Networks is developing gateways with built-in broadband wireless multimedia distribution technology, designed to wirelessly transmit bandwidth-intensive HD video over long distances to a variety of entertainment and media devices throughout the home. Amedia transmitter and receiver devices work alongside the Fujitsu MPEG encoding and decoding ICs to deliver superior quality and reliability. The Fujitsu MPEG encoder is positioned adjacent to Amedia's WVA5002 chip in the wireless transmitter, while the Fujitsu MPEG decoder resides alongside the WVA5002 device in the receiver. A DVD with Amedia's transmitter is connected wirelessly to a television monitor with the Amedia receiver. As an option, a NTSC/PAL switch on the transmitter board can be used to configure both the transmitter and receiver for either NTSC or PAL transmission.

"Carriers and vendors are looking to address increased subscriber interest in triple-play services, as the traditional gateway evolves

into a complete broadband entertainment center for the networked home," said Bo Hu, CEO of Amedia. "Our wireless audio-video technology moves this process forward. Working with Fujitsu Microelectronics to leverage their global expertise and experience in MPEG technology and in encoder/decoder technology is a vital component in our efforts."

"We are pleased to be working with Amedia on this transformative implementation of wireless audio and video transmission and reception," said Davy Yoshida, director of business development at FMA. "At Fujitsu we have developed industry-leading expertise in MPEG-based encoding and decoding technology, while Amedia's technology represents the next major step forward in wireless broadband connectivity. Clearly, this represents an ideal partnering of technology and expertise."

Apogee Photonics introduces standardized platform for optical transceiver development

Apogee Photonics announced a single platform approach for creating 10Gbps transceivers based on its 1310nm and 1550nm laser sources. Customers now can manufacture new transceiver products for a range of optical network applications with one platform, greatly reducing development and qualification design cycles and offering faster time to market, say company representatives.

The combined 1310nm and 1550nm platform architecture allows Apogee Photonics' customers — module and OEM manufacturers — to adopt a standardized platform to serve multiple 10Gbps transceiver interfaces (such as LR, SR1, IR1, ER, IR2, and LR2) with a single XFP board and case. Transceiver-level design choices related to receptacles, flex guides, output pinning, and driving only need to be done once with Apogee Photonics' platform, says the company. The platform greatly reduces the risks associated with new transceiver introductions and provides development cost savings, decreasing the separate qualification cycles of each new product.

Apogee Photonics customer eGTran designs, develops, and markets 10Gbps and 40Gbps data transponders, ICs, and components for fiber-optic markets and is using Apogee Photonics' combined 1310nm and 1550nm platform architecture for its XFP product.

"Our work with Apogee Photonics' platform allows us to rapidly address new applications as we aim to meet the growing customer demand for advanced optical link distances and applications," explained Dr. Frank S. Lee, CEO of eGTran. "Apogee Photonics is the ideal partner because they understand that industry success requires the fastest time to market and as few development cycles as possible."

The 1310nm and 1550nm 10Gbps laser sources on the platform are both EML based and mechanically and pinning compatible. For example, Apogee Photonics' new 10T3005 1310nm TOSA offers a receptacle and flex guide that is compatible with the Apogee TLA10X 1550nm XMD TOSA. To support this single-platform approach, Apogee Photonics has a T10-0120-021 evaluation board using the Vitesse VSC7982 driver that supports both the 1310nm and 1550nm TOSA. Similarly, an evaluation board (T10-0120-022) is available using the OKI 4195 driver.

"The definition of new transceiver MSAs such as SFP+ requires many of our customers to make hard trade-offs in the number of transceiver products offered, given engineering resource constraints," noted Scott Keller, Apogee Photonics' vice president of sales and marketing. "Apogee's unique technology approach offers a much needed solution that allows customers to easily broaden their product offering while reducing the cost, materials and resources involved in the design and qualification of separate platforms."

The Apogee Photonics platform is available immediately and shipping samples to customers worldwide.

Broadcom unveils DSP-based 10GbE serial transceiver

Broadcom Corp. announced what it claims is the industry's first all-digital signal processing (DSP)-based 10-Gigabit Ethernet (10GbE) serial transceiver, which enables IT professionals to preserve their existing multimode and single-mode fiber infrastructures by providing an upgrade path from 1GbE to 10GbE.

According to the company, the high-speed DSP provides significant performance, manufacturing, and reliability advantages over competing analog solutions, which should help drive significant growth in the 10GbE market. Utilizing the Broadcom DSP-based 10GbE physical layer device (PHY), enterprise datacenters now can achieve higher bandwidth and performance while maintaining significant savings in cost, resources, and manpower when upgrading to 10GbE links, say company representatives.

Broadcom claims its 10GbE DSP PHY exceeds the requirements of the new IEEE 802.aq standard, which was developed to provide a low-cost 10x speed upgrade for existing Gigabit Ethernet links in multimode fiber applications. Today, more complex and higher-cost 10GBASE-LX4 optical modules currently are servicing this market, creating the need for simpler and lower-cost options. Additionally, as density of 10GbE line cards increase from 8 to 16 channels today to as many as 48 channels on next-generation designs, smaller form factors and lower cost 10-Gigabit modules (such as SFP+) will be required, says Broadcom.

"Broadcom's all DSP-based 10-GbE PHY will enable future products that are consistent, predictable, and have more tolerance to power supply noise and temperature variations," contended Nariman Yousefi, vice president and general manager of Broadcom's Physical Layer business. "Additionally, when the PHY performs signal detection using advanced signal processing with DSP, it provides a significant performance advantage when compared to analog solutions. As a result of this new technology," he said, "the all DSP-based PHY provides the highest level of production quality that can also be easily integrated in complex ASICs and, together with Ethernet switch and controller products, provides a complete end-to-end solution that guarantees network design interoperability."

Broadcom claims it changed the industry when it became the first company to ship PHYs in high volume production based entirely on DSP technology. Today, all 10/100/1000Mbps PHYs in the market are DSP based, and Broadcom's new 10-Gigabit DSP equalizer technology will help to enable the rapid growth in data-intensive applications in next-generation designs, says the company.

"With the growth of computational power and the number of servers in data centers, the requirement for high-speed connectivity becomes a critical requirement," added Jag Bolaria, senior analyst at The Linley Group. "As 10-GbE technology becomes more cost-effective over the existing infrastructure that includes multi-mode fiber, it will make strides to become the interconnection of choice in servicing the high-bandwidth needs of the enterprise. We expect Broadcom's new 10-GbE PHY technology to enable these high-bandwidth links, which are expected to grow at a significant rate for the next few years," he contends.

Announced is the Broadcom BCM8706 10GbE (SFP+ to XAUI) transceiver that builds on five generations of 10GbE serial PHY technology and will be used in SFP+ line-card applications and inside X2 optical modules. The DSP equalizer provides optimal performance over 300 meters of multimode fiber that exceeds the IEEE specified link distance of 220 meters. An on-chip microcontroller provides additional flexibility to maintain optimal performance in even the most challenging operating conditions, says the company.

In support of the new SFP+ optical module standard, the BCM8706 product family

incorporates multitap transmit pre-emphasis to compensate for FR-4 board material loss in line-card applications. For additional flexibility, it supports backward compatibility using existing 1GbE SFP modules, providing a single PHY design that is capable of interfacing to both new and legacy Ethernet interfaces from a single PCB design.

According to Broadcom, the BCM8706 serial 10GbE transceiver is a low-power, 90nm device that is now sampling to early access customers. It is available in a 13x13mm, PBGA, RoHS-compliant package and is compliant to all serial 10GbE interfaces, including 10GBASE-SR, 10GBASE-LRM, 10GBASE-LR, and 10GBASE-ER. Volume production is scheduled for the second quarter of 2007. Pricing is available upon request.

Aeluros integrates EDC/10G PHY/SerDes

Aeluros, a supplier of low-power CMOS-based 10G PHY/SerDes solutions, announced the availability of its second-generation 10GbE PHY/SerDes devices with integrated electronic dispersion compensation (EDC) for 10GBASE-LRM applications. These devices, targeted for both XAUI-based optical modules and the emerging SFP+ systems applications, are built upon the earlier generation of the Puma AEL1003 — a highly integrated device with full PCS, PMA, and XGXS sub-layer functionality, and all the unique cost-saving features of the previous generation of Puma 10G PHY/SerDes devices, including the industry's lowest power dissipation.

This latest generation of integrated EDC/PHY/SerDes devices from Aeluros incorporates performance enhancements to the original EDC engine that was demonstrated at OFC/NFOEC in March 2006, and participated in the recent industry-wide 10GBASE-LRM interoperability testing. Enhancements include improving the robustness of the EDC algorithm to address not only the standard stress test pulses defined in the IEEE 802.3aq specifications for 10GBASE-LRM, but also more stringent corner cases that could simulate real-world deployment situations and identify the real breadth of the EDC engine's performance characteristics.

Aeluros' EDC technology has been extensively tested against various ROSAs (Receive Optical Sub-Assemblies) with different "linear" transimpedance amplifiers from different vendors to ensure interoperability with a variety of configurations that would be encountered in X2 optical modules and SFP+ line-card applications. In addition to the standard IEEE stress tests available through optical testers, Aeluros has tested its EDC technology, with internally developed stress tests, and with high-DMD fiber combined with preproduction SFP+ modules. Aeluros intends to make these tests available to its systems customers.

"We have focused on developing a very robust EDC engine for our integrated PHY/SerDes devices," said Stefanos Sidiropoulos, cofounder and CEO for Aeluros. "With a robust EDC function suitable for XENPAK/X2 modules and SFP+-based line-cards, Aeluros is well positioned to address the requirements of both existing and emerging systems architectures."

Samples of the device will be available to Aeluros's modules customers in 15x15mm BGA packages, and to its line-card customers in 10x10mm packages — to allow for high-density architectures driven by the emerging SFP+-based system architectures.

TECHNOLOGY

Siemens claims speed record

In cooperation with Micram, the Fraunhofer Institute for Telecommunications (Heinrich-Hertz-Institut), and Eindhoven Technical University, Siemens has successfully tested the network of the future. This involved the 100 percent electrical processing of data rates of 107Gbps and transmission over a 100-mile-long fiber-optic route in the US — the first time this has ever been done outside the

laboratory. The record performance was made possible by a newly developed transmission and receiving system that processes the data by purely electrical means directly before and after its conversion into optical signals. The test was conducted at a long-haul network at one of world's largest optical network operators, in which Siemens has previously deployed a 40Gbps optical network for commercial use.

Ultrahigh bandwidth capacity in core networks will be required to cater the traffic generated by online games, music, and video downloads. By 2011, legal music downloads alone will account for 36 percent of the entire music business in Europe, according to market research institute Forrester Research. And network operators are reacting to this development: They not only are expanding their access networks with broadband technology, but are also having to adapt the capacities of their optical core networks accordingly. To prepare for the data traffic volume of the future, Siemens is already working to develop key technologies within its labs.

IPTV

AT&T unveils San Jose IPTV

A new world of communications and entertainment is now available to Bay Area residents. AT&T Inc. announced the initial launch of AT&T U-verse, which utilizes AT&T's fiber-rich network that extends optical connections deeper into neighborhoods. U-verse services are initially available in limited areas across the San Jose-Sunnyvale-Santa Clara metropolitan statistical area (MSA), including parts of the cities of Cupertino and Saratoga. AT&T plans to expand to additional areas on an ongoing basis.

AT&T U-verse offers customers a combination of next-generation digital television — including more than 25 high-definition (HD) channels — and high-speed Internet access. AT&T U-verse TV includes features that are unmatched in the market, while the new U-verse-enabled AT&T Yahoo! High Speed Internet builds on AT&T's position as the nation's leading provider of broadband DSL.

"AT&T U-verse gives Bay Area customers a better television option and will change the way they experience communications and entertainment," said Melba Muscarolas, AT&T vice president and general manager for the San Francisco Market Area. "It's fitting Bay Area residents, known around the world as early adopters of new technology, are among the first to receive our innovative U-verse services."

Beginning immediately, AT&T U-verse TV will offer Bay Area residents the following:

- A compelling variety of TV packages with more than 300 channels, including digital music, local, and premium movie and sports programming;
- HD technology that produces images more than twice as detailed as standard analog TV, delivering rich, realistic video, and multi-channel, movie theater-quality sound. AT&T U-verse offers customers access to a growing lineup of more than 25 HD channels, more than the local cable provider. New HD customers can receive two months of free HD service ($10 per month thereafter);
- Web remote access to digital video recorder (DVR), which allows customers to schedule recordings using their AT&T Yahoo! Internet account. This feature is unique to AT&T among local providers;
- The ability to record up to four programs at once using a DVR receiver, another exclusive feature unmatched in the marketplace;
- Built-in picture-in-picture functionality that allows subscribers to "channel surf" on any television without leaving the program they're watching;
- Specially designed set-top boxes, manufactured by Motorola, all of which are HD capable and include universal remote controls that provide backlit buttons and one-touch

access to video-on-demand, DVR, and other services;

- A premium Spanish-language package featuring novelas, movies, news, sports, children's programming, talk shows, and more. New customers can receive the package at no charge for the first two months ($10 per month thereafter);
- A growing video-on-demand library with one-touch access to movies and events;
- Fast channel-changing, eliminating the delay experienced with other digital broadcast services;
- The ability to search for programs using title or actor's name;
- Three TV receivers — one with a DVR, which allows customers to pause, rewind, replay, and record live TV — at no extra charge with most programming packages. (Customers may add more receivers for $5 each per month.)

AT&T plans to continue adding more channels and interactive applications in the future. Customers can choose from five TV and three Internet packages to customize their entertainment experience. In addition to the U300 and U400 packages, AT&T also offers U-family, a family-friendly programming option. Current AT&T U-verse TV offers start as low as $44 per month, depending on the selected programming and Internet packages (other monthly charges apply).

Three packages of AT&T Yahoo! High Speed Internet U-verse Enabled will be made available to AT&T U-verse customers:

- Elite: Downstream up to 6.0Mbps, upstream up to 1.0Mbps.
- Pro: Downstream up to 3.0Mbps, upstream up to 1.0Mbps.
- Express: Downstream up to 1.5Mbps, upstream up to 1.0Mbps.

All high-speed Internet packages offered as part of AT&T U-verse include wireless home networking at no charge, giving users the freedom to access online photos, streaming video, games, and other information using a wireless-enabled laptop or other device. Subscribers also receive virtually unlimited email storage and powerful anti-virus and anti-spam software.

The deployment of next-generation video services reflects AT&T's strategy to become customers' preferred communications and entertainment provider and to deliver a video solution through its traditional footprint that provides greater value, flexibility, and simplicity than competitors' offerings. AT&T U-verse TV represents a critical new service in the company's video portfolio, which today includes AT&T DISH Network and AT&T Homezone service, which integrates AT&T DISH Network and AT&T Yahoo! High Speed Internet. AT&T U-verse TV also underscores the company's strategy to deliver integrated services to the three screens many consumers say are most valued today: the PC, the TV, and the wireless phone.

O2 touts IPTV growth

The O2 TV (fixed-line television) service from Telefónica O2 Czech Republic has once again increased its market share of multimedia entertainment in the Czech Republic. Since September 1, 2006, when the service was introduced to the market, the company has registered 15,000 customers who actively use the O2 TV service.

STANDARDS

HomePNA expands

HomePNA announced that its alliance membership has swelled by 28 members this year, demonstrating growing industry investment in high-speed multimedia home networking using existing home wiring. The new members include leading semiconductor, set-top box, residential gateway, ONT, component, and telco test equipment suppliers. Companies and industry standards groups are adopting and implementing the home networking

specification, which supports triple-play voice, video, and broadband data services at data rates of 320Mbps over coax and phone wires, with the capacity to deliver next-generation IPTV and other networked entertainment data and VoIP services.

"Joining the alliance was a strategic decision," said Dave Holly, senior vice president of JDSU's Field Test Communications Test and Measurement division. "We now have access to members-only specifications, cooperation and development with like-minded companies and a hands-on contribution to the technology we are convinced will be a major force in multimedia home networking."

Scientific Atlanta, Conexant, and Sunrise Telecom are new promoter members and board directors which provide both technical and strategic leadership for the alliance. New members JDSU, Analog Devices, and Janifast Corp. joined as participant members which contribute to committee work while influencing technology development. HomePNA also added 22 new adopter members which will implement the technology with their member-only access to the HomePNA specifications and certification process.

FTTX

Growth in demand for Verizon's FiOS services spurs Verizon to hire more employees for California customer support center

Spurred by significant growth in deployment and demand for its fiber-optic-based Internet and TV services around the country, Verizon is seeking to fill approximately 50 more positions at its state-of-the-art Fiber Solutions Center (FSC).

The company, which has already hired 64 new FSC employees in Oxnard since October, is seeking additional Internet technical support associates to help consumers and business customers who purchase new FiOS broadband and video products delivered over Verizon's new, all-fiber network.

"Employees at the Fiber Solutions Center are playing a key role as Verizon provides our FiOS customers with an unprecedented broadband and video experience," said Kathy Koelle, senior vice president and general manager for Verizon's West Coast region. "Our employees are trained in all aspects of this new technology so that they can help our customers get the most out of the very best broadband and entertainment services available."

Verizon is deploying its fiber network in more than half the states where it provides landline phone service, including California. The new technology uses fiber-optic connections — instead of copper wire — all the way from Verizon network centers directly into homes or businesses. With fiber optics, it is possible to provide a broad array of voice, data, and video services with greater reliability, quality, and capacity than with any other technology.

Verizon is building the nation's largest all-fiber network directly to customers. Only Verizon's FiOS network has earned the certification of the independent Fiber to the Home Council for providing fiber all the way to customers' homes and businesses.

Verizon plans to pass 18 million premises with its fiber network by the end of 2010, or more than 50 percent of the approximately 33 million households in the company's 28-state wireline service area. The FiOS network buildout is on target to pass a total of 6 million premises by year-end 2006, with an additional 3 million a year planned through 2010.

Verizon has set a target of 725,000 FiOS Internet customers and 175,000 FiOS TV customers by year-end 2006. More than 1 million households are already currently eligible to purchase FiOS TV services, due to Verizon's significant progress in obtaining state and local cable franchises.

Specially trained fiber-customer-support analysts and fiber-network technicians in the

Fiber Solutions Center handle calls from customers in California and other Western states who buy FiOS Internet and FiOS TV services. The center's staff also supports Verizon technicians who install the new products, answering technical questions and remotely diagnosing and correcting problems.

Verizon's FiOS TV approved in Franklin, Massachusetts

The Board of Selectmen in Franklin granted a cable franchise to Verizon December 20, paving the way for video choice for approximately 6,000 more Massachusetts households. The board's vote brings to 38 the total number of Massachusetts communities where Verizon's FiOS TV is or will soon be available.

"We are thrilled to be able to bring FiOS TV to residents in Franklin," said Donna Cupelo, Verizon region president for Massachusetts and Rhode Island. "Since the launch of FiOS TV in Massachusetts earlier this year, we are continuing our efforts to meet the consumer demand for cable TV choice."

Verizon currently offers FiOS TV to more than 200,000 households in Massachusetts. FiOS TV is available in Acton, Andover, Belmont, Boxborough, Boxford, Burlington, Dedham, Georgetown, Hamilton, Hopkinton, Ipswich, Lincoln, Littleton, Lexington, Lynn, Lynnfield, Marlborough, Nahant, Natick, Needham, Newton, North Reading, Reading, Stoneham, Swampscott, Tewksbury, Topsfield, Tyngsborough, Wakefield, Wellesley, Wenham, West Newbury, Winchester, and Woburn, as well as in other locations in New York, California, Texas, Florida, Maryland, Pennsylvania, and Virginia. The company also has TV franchises in the Massachusetts communities of Marion, Mattapoisett, and Rochester.

"As a result of this new franchise, consumers in Franklin will be able to choose their cable provider as easily as they choose their phone company," said Cupelo. "Competition drives innovation, value and service quality, and it puts the consumer in control."

Verizon is currently in negotiations with some 30 other communities in Massachusetts to obtain additional franchises. For more information on the Verizon franchise process in the state, log onto http://www.verizon.com/ma.

The Franklin franchise agreement contains provisions for the network's future growth, financial support and capacity for educational and government access channels, cable service to government buildings, and other important benefits to the town, including insurance, indemnification, and enforcement protections.

"Verizon will compete aggressively for subscribers in Franklin with our FiOS services, which are fueled by our lightning-fast fiber-optic network," Cupelo said.

Verizon is the first company to offer such a communications network, connecting homes and businesses directly to fiber optics on a widespread scale.

Verizon receives DPUC approval for compliance order certificate to offer FiOS TV in Rhode Island

The state Division of Public Utilities and Carriers granted a Compliance Order Certificate to Verizon on December 20, taking the next significant step toward bringing video choice to approximately 80,000 Rhode Island households.

The division's order comes after an 11-month proceeding in which the company's technical, financial, and managerial qualifications to operate a cable system in Service Area 6 were examined and found to be in compliance with the division's rules and regulations. Service Area 6 encompasses the communities of Coventry, East Greenwich, Exeter, North Kingstown, Warwick, West Greenwich, and West Warwick.

"We are delighted to receive this first certificate and look forward to working with the

division in the coming months to complete the certification process," said Donna Cupelo, Verizon region president for Massachusetts and Rhode Island. "Rhode Island consumers deserve the opportunity to have a choice in their cable TV provider. Competition drives innovation, value and service quality, and when we will launch FiOS TV in Rhode Island next year, consumers in Service Area 6 will be able to choose their cable provider as easily as they chose their phone company."

FINANCING

Intellon lands $18 millions

Intellon Corporation, a provider of powerline communications technology, integrated circuit (IC) sales, and product enablement, announced that it has raised $18 million in new equity financing. Samsung Ventures joins existing investors BCE Capital; Comcast Interactive Capital; Duchossois Technology Partners; EnerTech Capital; Fidelity Ventures; Goldman, Sachs & Co.; Intel Capital; Liberty Associated Partners, LP; Motorola Ventures, the strategic investment arm of Motorola Inc.; TL Ventures; and UMC Capital Corporation in the financing round. The round was led by Goldman Sachs.

Intellon will use the new funds to accelerate the global rollout of its HomePlug AV-compatible ICs and to develop innovative new products to meet customer needs. Building on the company's existing line of HomePlug 1.0-compatible ICs that are already being used on six continents for home networking, IPTV distribution, broadband-over-powerline (BPL), and commercial applications, Intellon's HomePlug AV ICs enable whole-house distribution of high-definition video and digital audio over existing home electrical wiring and coaxial cable, with robust quality of service and tight control of latency and jitter.

"Samsung Ventures is pleased to be investing in Intellon at this exciting time in the industry," said Jay Eum, managing director of Samsung Ventures. "With Intellon's release of the industry's first HomePlug AV-based ICs, we look forward to evaluating opportunities for exciting new CE-class products in the future."

MARKET INTELLIGENCE

Japanese fiber subscribers top 7 million

The number of subscribers to high-speed fiber-optic network services in Japan topped 7 million for the first time ever at the end of September, helped by growing replacement demands, the communications ministry said.

A total of 7,154,550 were subscribing to fiber-optic services as of the end of September, up 848,953, or 13.5 percent, over the three months earlier, the Ministry of Internal Affairs and Communications said.

The data highlighted more subscribers favoring faster fiber-optic services over asymmetric digital subscriber line and other broadband Internet access services in relatively large cities, the ministry said.

The number of subscription to ADSL services fell 94,960, or 0.7 percent, in the three months through September to 14,396,034 for the second consecutive quarterly decline.

Report: Indonesia's PGN to form fiber-optic unit

PT Perusahaan Gas Negara (PGN) said it is planning to establish a subsidiary next year, which will engage in the fiber-optic business using the company's pipeline network, Koran Tempo reported, citing a company official.

Djoko Pramono, PGN's finance director, was quoted as saying that the company has sent a letter to the Ministry of Communication and Information to seek approval.

Pramono said establishing the new unit will require limited investment, since the fiber-optic cable will be attached to the company's gas pipeline.