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Editor's Picks

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Compiled by Patrick McLaughlin

Label maker features hot keys, QWERTY keyboard

The Rhino 4200 label maker from Dymo features one-touch "hot keys" that are also found on other Rhino brand labelers and allow users to quickly create and format wire/cable wraps, flags, and fixed-length labels. It also features a "favorites" key that offers single-key access to commonly used labels, and a "custom" key through which the user can save settings for individual label formats. The Rhino 4200 prints labels up to 3/4-inch wide.

It also includes a QWERTY-style keyboard, which Dymo says provides quick and comfortable text entry. The company adds that the 4200 offers industrial-strength labeling versatility by printing labels in widths of 1/4, 3/8, 1/2 and 3/4 inches.

Dymo Industrial's senior manager of product marketing Angie Shelton explains, "We worked closely with end users and distributor partners to design a labeling solution that could offer ease of use plus full customization and optimization features, at a lower cost." The Rhino 4200 lists for \$79.99.

Other product features include a large backlit display, integrated rubber bumpers, and auto-save/power-off.



Manual prepares fiber technicians to master the OTDR

Mastering the OTDR - Trace Acquisition and Interpretation is a new 86-page training and field-reference manual available from Pearson Technologies Inc. "This manual enables the reader to develop the 14 abilities essential to acquire and interpret traces correctly," Pearson Technologies said when announcing it. "OTDR testing and interpretation are the two aspects of fiber-optic installation that cause the most difficulty to the largest number of novice installers. This training and field text is designed to reduce such difficulty significantly. For some readers, this manual eliminates difficulty completely."

The 86-page manual includes five chapters that Pearson describes as concise yet comprehensive in delivering knowledge and understanding. A total of 120 figures are included, and each of the five main chapters includes a summary of key concepts, of which there are 66 total. Mastering the OTDR - Trace Acquisition and Interpretation includes two additional chapters - one that presents a brief summary of steps to take during field testing, and another that includes 151 review questions and exercises, which can be used as a study and training guide.

The manual's author, Eric R. Pearson, has made and interpreted more than 31,000 OTDR traces over 34 years.

Trailer-mounted duct-rod pusher

General Machine Products' Ramrod is a trailer-mounted, powered duct-rod pusher. It is a mechanized method for working with GMP's 1/2-inch duct rods, the company says, providing an alternative to rodding trucks that can cause damage to existing cable because of their significant power. The Ramrod is hydraulically powered, GMP says, providing precise control and the ability to push and pull forces up to 300 pounds, at speeds up to 130 feet per minute.

The trailer-mounted setup provides convenient maneuverability and transportability, according to General Machine Products. The system features a gasoline-driven power pack, hoses, and a locking waterproof storage box. An electronic monitoring system measures rod-pushing footage and speed. Once the conduit has been rodded, the Ramrod retrieves the rod via its bidirectional drive track. During retrieval, a window allows the rod to be wiped clean before being stored back on the cassette.

Brocade senior technologist named Ethernet Alliance president

The Ethernet Alliance (EA) announced that Scott G. Kipp, senior technologist at Brocade Communications Systems, is its new president. Kipp succeeds Jim Theodoras of ADVA Optical Networking in the role.

"I am truly honored that the Ethernet Alliance's board of directors has asked me to take on the responsibility and challenges of leading this vibrant organization, and to carry on its outstanding work in the advancement of leading-edge Ethernet technologies," commented Kipp.

He added, "Jim Theodoras's strategic vision and leadership have allowed the Ethernet Alliance to excel in its role as the industry's premier resource for Ethernet advocacy, education, and innovation. We thank him for his dedicated service and congratulate him on his accomplishments as president."

The Alliance expects Kipp to launch several new initiatives that will expand upon those Theodoras launched. These include the organization's "University of Ethernet" (UE) webinar series. The free UE presentations will cover a range of topics, from foundational Ethernet technologies to next-generation applications, such as parallel optics and terabit Ethernet.

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"Ethernet is vital to today's global data networks and data traffic is growing between 30 to 40 percent annually and pushing Internet infrastructure to the limit," added Kipp. "The industry is just beginning to adopt 100 Gigabit Ethernet and IEEE is developing lower-cost solutions as we speak. Only through careful, forward-thinking stewardship can the industry cost-effectively increase the number and speed of Ethernet links to successfully address and overcome this bandwidth challenge."

Plenum enclosures for Aruba access points

Among new products announced by Oberon this fall is a new ceiling mounting solution for securing Aruba Networks AP-135 Series wireless access points.

The new Oberon Model 1066, currently available for pre-ordering, is designed to provide a secure, convenient, and aesthetic mounting enclosure solution for the Aruba Networks AP-135 series 802.11n access points. Designed to meet NEC 300-22 and 300-23 for plenum installations, the 2' x 2' x 2.25" deep mount is OSHPD-approved (OPA #1638). Particularly in healthcare environments, where infection control precautions are needed when working above the ceiling, the ability to maintain and secure the AP below the plenum space can provide significant time savings, notes Oberon.

The 6-pound enclosure is shipped with hanger wires, 1.75" trade size conduit connector for data/power cable, a security hasp to secure mount to the ceiling system or other permanent fixture, and mounting instructions. The enclosure attaches directly to the building's ceiling structural system and features a patent-pending locking mechanism, simplifying compliance with government and PCI requirements concerning physical security of networking equipment. The access point can be accessed from below for easy moves, adds, and changes.

Aesthetically, the company asserts that the enclosure follows Oberon's "trademark sleek, sophisticated look." The white powder-coated steel enclosure fits standard 2' x 2' ceiling tile arrangements with no need to cut ceiling tiles. For "regular" ceiling tiles (or recessed grid ceilings) commonly used in new construction and renovations, the Model 1066-T shows attention to detail with a matching 3/8" bevel in the flange around the perimeter.

Aruba's AP-135 Series wireless access point is designed for extremely high-density Wi-Fi environments. The AP-135 access point features two internal 3x3 MIMO dual-band 2.4-GHz/5-GHz radios. An Aruba Networks official stated that the AP-135 offers "50 percent more throughput and supports 50 percent more mobile devices in high-density environments compared to previous-generation APs."

Cable fault finder detects multiple bridge taps

The TS100 Pro from Fluke Networks is a field-test tool capable of testing the entire length of an average Digital Subscriber Line (DSL) cabling loop from bridge taps, which the company says are a major source of DSL network-performance issues. Bridge taps are extra lengths of cable generally found in the network's last mile. Fluke says that quickly and efficiently detecting and removing bridge taps is critical to service providers as they install new DSL service on existing networks. The TS100 Pro has a feature called PowerBT Bridge Tap Detection. The tester includes a one-button interface that can detect taps to 3,200 feet as well as open/short circuits to 8,000 feet.

Other features of the TS100 Pro include the following.

- AC/DC voltage detector
- Built-in toner
- SmartTone, which enables exact pair identification

Ed Sztuka, vice president of Fluke Networks, explains, "Today's increased demand for broadband, combined with cost pressures, has service providers working to optimize existing network infrastructure and new rollouts. Unfortunately, constant upgrades over time have resulted in bridge taps on a significant number of today's cable lines. Until now, no field technician tool could, in one step, easily detect these taps on the entire standard DSL field length."

Kit prices for the TS100 Pro begin at \$799.



Michigan Tech chooses wireless over fiber

BridgeWave Communications announced that Michigan Technological University (Michigan Tech) is using BridgeWave's 80-GHz millimeter wave backhaul systems to connect several disparate campus buildings across the Portage shipping canal, which crosses the campus. BridgeWave says its Gigabit wireless Ethernet bridges work to eliminate the network disruptions the campus had struggled with previously, while providing an affordable alternative to fiber.

According to BridgeWave, as the university continued to expand, the IT department experienced challenges maintaining connectivity to several remote locations. While adequate during their initial deployments, the unlicensed microwave links in question were becoming prone to interference issues, yielding unacceptable levels of performance as demands on the network increased. Shane Godmere, a senior telecommunications engineer at Michigan Tech, said that he explored solutions that would eliminate the interference issues and offer ample bandwidth for the various applications being transported across the networks, including large files of research data and a 24-hour data stream from surveillance cameras scattered across the campus.

"My team researched several alternatives, including laying fiber, but BridgeWave's links were the best solution for us," said Godmere.

Michigan Tech deployed combinations of the BridgeWave AR80-AES, AR80X and FE80U systems, each taking less than two days to implement. Despite inclement weather during Michigan's notoriously snowy winters, the links continued to provide high availability and maintained connectivity to the campus network. The 80-GHz links also eliminated the need to trench under the nearby shipping canal, which saved the campus time and money as the deployment would have taken 24 months with initial cost estimates just under a million dollars. It was also more economical than what commercial providers could have offered.

An added benefit to the use of full-rate Gigabit connections across facilities was the consolidation of servers on campus. Previously, distributed servers were needed to provide instant access to data due to the bandwidth constraints and interference levels of the unlicensed solutions. With Gigabit connectivity on the network, these bottlenecks have been removed and remote users have the same network experience as local users.

"BridgeWave's Gigabit Ethernet radios have solved our connectivity needs for sites that were difficult and costly to service with fiber," said Godmere. "Their products have provided us with carrier-grade connectivity, high availability and worked well within our budget. My team is thrilled with the time we've gotten back that was once wasted troubleshooting."

The GigE wireless bridges deployed have a highly secure, narrow antenna beam width, which is useful when transferring sensitive information across the campus network. BridgeWave says that its AdaptRate (AR) radios also include Advanced

Encryption Standard (AES), the strongest data encryption available. Michigan Tech's PCI-DSS in-scope compliance is much easier to attain with these characteristics.

Godmere noted, "BridgeWave's links have given my team peace of mind that our network won't go down or experience radio frequency [RF] interference. We've been able to organize campus IT departments into larger units and, now, services are running out of two main data centers instead of multiple ones scattered across the campus."

"Our high capacity wireless solutions provide fiber-equivalent network connectivity without the infrastructure costs," concludes Amir Makleff, president and chief executive officer of BridgeWave Communications. "As bandwidth demands increase, university IT departments are faced with balancing the network needs with enabling greater productivity and efficiency for staff and students. 80-GHz links are an excellent alternative to fiber and support Michigan Tech's network requirements."

Study: Data centers still drive AOC "niche" market

Companies & Markets (UK) has released its new report, Active Optical Cabling Markets - 2011 and Beyond. According to a press statement, the firm's researchers believe that active optical cables (AOCs) are still a niche market. "We believe that they will generate less than \$60 million in 2011 and these revenues will largely come from sales into the data center (and especially the InfiniBand) market," said the firm.

Nonetheless, the firm believes that "AOCs remain the best way for markets where knowledge of fiber optic communications is scarce to derive the benefits of optical networking." The firm forecasts that, soon, other markets will pick up on how AOCs can help them shift toward fiber optics. Such alternative markets are expected to include not only a broad range of data communications applications, but also digital signage and various consumer electronics applications.

The firm estimates that within five years, the worldwide AOC market will have reached \$1.9 billion. The report also analyzes recent industry shaping events such as Molex's acquisition of Luxtera's AOC business and Intel's transition from its predominantly optical Light Peak technology to its predominantly copper Thunderbolt technology.

Plastic optical fiber under discussion, on display at OFC/NFOEC

The Plastic Optical Fiber Trade Organization (POFTO) announced it has organized a POF Symposium that will take place during OFC/NFOEC, which is being held March 6-8, 2012. The POF Symposium will be held Wednesday, March 7 from 1 to 5 p.m. The POFTO says the symposium will cover recent developments in plastic optical fiber technology, applications, technical standards and new markets.

Among the topics slated to be discussed during the symposium are the following.

- Products and Technologies for Commercial Deployment of Gigabit POF Communication
- Active Optical Dables: Market Opportunities and Challenges
- POF Connectors and Associated Equipment

Additionally, POFTO is organizing a POF Technology and Applications Pavilion, at which member companies will demonstrate their products and technologies. That pavilion will be located on the OFC/NFOEC exposition floor at space number 2733. The pavilion will occupy approximately 1,000 square feet.

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