Skinny Wire

A Publication of WALKER AND ASSOCIATES INC

Volume IV, Issue 1 www.skinnywire.net Logistics Solutions for Telecom Professionals

Hosted Solutions - Impacting your ARPU

Plus:

- ***Future Proof Solutions for Fiber Deployment***
- ***Addressing the Challenge of Packet Backhaul***

AND - Walker's 40th Anniversary Tour Schedule, Page 18

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The Fujitsu FLASHWAVE® 4500 Multiservice Provisioning Platform (MSPP) makes digital cross connect a reality without an expensive overlay network. Add the compact FLASHWAVE 4100 Extension Shelf and deliver profitable Ethernet, Video On Demand, residential bandwidth and backhaul applications. With our NETSMART® 1500 Element Management System or Hosted EMS, you can also realize significant savings on operational costs.

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In This Issue . . .

Feature Articles

Resource Articles

Walker News

The Skinny Wire is a bi-annual publication of Walker and Associates, Inc.
"Equaly Opportunity./Affirmative Action Employer m/f/d/v"

Editor's Letter

Our industry has seen numbers of mergers and acquisitions over the years. With goals of increasing economies of scale, improving market reach, and creating a larger technology portfolio, many have fully realized a more strategic market position.

As a 40 year distribution veteran, it was perhaps inevitable that Walker and Associates would also seek an acquisition in a complementary market space. Last August, that vision became a reality when Walker purchased the non-affiliate assets of Windstream Supply. Similar industry reputations and common business practices are factors that attracted Walker to Windstream Supply. Additionally, each company's go-to-market experience, order management processes, and logistic services made the acquisition one of the industry's smoothest transitions, as noted by our extensive customer base.

I participated right along with everyone else during our transition toward becoming one company. I can tell you firsthand that all associates from both companies came together with one objective in mind - taking care of our customers first. Everyone's long hours and hard work contributed to limited service disruptions, and led to increased confidence that our new company would be one of the success stories among mergers and acquistions.

One benefit from the acquisition is more than a 50 percent OEM partner level increase, which has enhanced Walker's buying power. The combined volume levels have earned Walker its position as a dominant competitive distribution player in the telecommunications industry.

An additional benefit is that our new OEM base has allowed Walker to expand our solution offerings and products. Included in this is our IP telephony solutions that support SIP trunking, managed/hosted services, and VOIP traffic aggregation. Some of the new partners that help support these applications are 3Com, ActionTec, Allworx, Hatteras Networks and Zyxel.

Walker's go-forward market plan is servicing wireless and wireline broadband providers, cable TV, government, enterprise network operators, and resellers, who are focused on the delivery of high speed internet, video, data and voice services. Walker's technology concentration is on IP, VoIP, Ethernet, fiber, FTTX, BLC, MSAP, optical multiplexing, routing, and wireless infrastructure.

As a newly enhanced company with 40 years of distribution experience, Walker is a solid company and manages its business well. Our portfolio of products, services, and resources are always being evaluated and enhanced, so that we can deliver on your needs with accuracy and efficiency. We are adapting, growing, and winning, so win with Walker in 2010!

Jennifer Beck

Hosted IP Telephony Solutions

THE WISE GUY

By Rodney Wise

Small to medium-sized businesses regularly review their operating costs. From advertising budgets to shipping cost evaluations, successful businesses have been good at scrutinizing these costs to maximize profits. Not so long ago the telephony portion of their overall costs was almost fixed without much room for negotiation. Competition and technology have changed the telephony landscape.

There are many ways to provide voice to these small businesses including traditional voice delivery systems and newer technologies. Traditional choices include Private Branch Exchange (PBX), Key Systems, and Central Office Exchanges Service (Centrex). In the past, these choices were based on Time Division Multiplexing (TDM) technology. Now these choices are changing to IP based technology options including IP PBX and Hosted IP Telephony.

The IP PBX solution is similar to traditional PBX solutions but utilizes IP in the transport and allows businesses to converge voice and data traffic at their locations. And like traditional PBX deployment, the upfront cost to purchase, install and provision an IP PBX is very significant and cost prohibitive for many businesses.

Hosted IP telephony is similar to traditional Centrex where the service provider owns and manages all the network equipment and “hosts” it in their central office or data center. The service is

As Director of Engineering Services for Walker and Associates, Rodney Wise confronts a variety of technical questions on a daily basis. His broad background provides him a real-world perspective of challenges and opportunities telecom engineers and project planners face in the field. This experience, along with continual training from the manufacturing community and a staff of equally talented Sales Engineers provide customers with a wealth of pre and post-sales engineering support. The Wise Guy is a regular feature in The Skinny Wire and on our website, www.skinnywire.net.

delivered over broadband access from the provider's location. Almost any broadband access technology will work including active Ethernet, T1, DSL and Cable Modem. The service provider may own the broadband access delivery mechanism to all of the customers it serves or it may utilize contracted access through other carriers. The only premise equipment needed for hosted IP telephony are routers or Integrated Access Devices (IADs) and phones. Analog or IP phones can be utilized but IP phones enable more features and functionality. IADs with their analog FXS ports are required when the businesses want to utilize their existing analog phones, modems, credit card machines and fax machines. Sample offices utilizing Hosted IP Telephony are illustrated in Figure 1.

Advantages to using Hosted IP Telephony services over on-premise IP-PBX services are many. Some of the most important cost advantages are the businesses do not need hire technical staff to maintain the network, they do not have to purchase expensive PBX equipment and software and they can leverage existing technologies that they may already own. The main disadvantage is higher recurring expenses.

The move of voice technologies away from traditional TDM solutions toward Hosted IP-based solutions will continue due to cost advantages and accessibility to more features, and the convenience of outsourcing network troubleshooting.

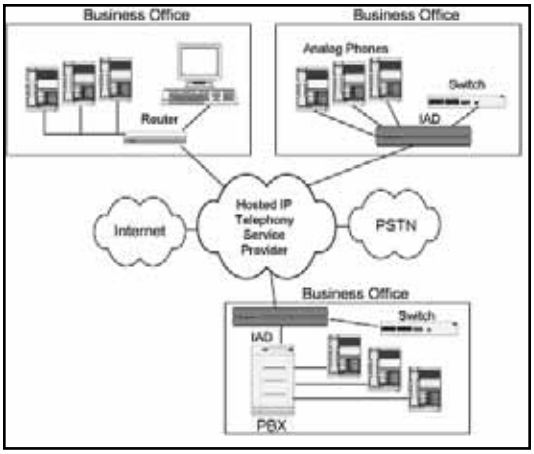

Figure 1 – Hosted IP Telephony

Walker's IP Telephony Resources

3COM
AudioCodes
GarrettCom
Ethernet at Its Best
tellabs
BROCADE
AASTRA
HATTERAS NETWORKS
WESTELL
EDGEWATER NETWORKS, INC.
Actiontec
POLYCOM
ZyXEL
Actelis Networks
Exalt
RAD data communications
ADTRAN
FORCE10
Telco Systems A BATM Company
ZHONE

FUTURE-PROOF SOLUTIONS FOR FIBER DEPLOYMENTS

By ADC

If we had a crystal ball to peer 10 years into telecom's future, what would we expect to see in terms of fiber applications and services? On-demand video, high definition programming, data-intensive internet applications – these are the current drivers for next generation services. But these services only give us a glimpse of what may be in our future. We are just beginning to shed light on fiber's true capabilities.

New bandwidth-intensive applications are emerging that will likely push network designs back to the drawing board: tele-medical care, virtual work commuting, 3D online environments, and global tele-conferences – to name a few. Of these services, which will actually take footing is anyone's guess, but this much is clear: the onus will fall on the service provider, and their network infrastructure, to deliver these services to the public.

For service providers, readying for these next generation services, now, by implementing the right fiber technologies, is the only way to ensure a quick, timely response to market demands. The ability to respond quickly is essential to a service provider's success, as it helps to ensure customer satisfaction, reduce labor costs, and keeps service providers at the competitive forefront.

Service providers, who invest in a connectorization strategy in their network plans, place themselves in the best possible position to respond to future services. Though a spliced architecture offers the lowest upfront construction costs, a connectorized, or plug-and-play architecture, offers more flexibility; flexibility to make adds, drops and network reconfigurations. And connectorization is more adaptable to network growth, as it requires significantly less labor for passing and turning up homes – enabling faster network construction.

To illustrate this point, let's explore two areas of the network that commonly require truck rolls: the distribution and access portions of the network.

To turn up service in a spliced architecture, a technician would typically be dispatched to the fiber distribution hub (FDH) to splice a single fiber into the splitter outputs. This requires the expertise of a trained splice technician, who charges at a significantly higher labor rate. Also, splice labor results in more capital equipment costs, such as cleaving, stripping and splicing machines.

In a connectorized architecture, service turn up is a faster, more efficient, process. A technician, who would not need to be a splicing expert, would simply connect the distribution fibers to the plug-and-play splitter outputs to complete the subscriber circuit. Thus, by using connectors instead of splices, service providers reduce the overall labor requirements for service calls, and speed their response time exponentially.

By incorporating splitters with plug-and-play outputs at the FDH, service providers also give themselves the ability to upgrade to future technologies more easily.

Consider the following scenario: There are 144 customers being serviced at the FDH; 24 customers need to be converted to a new, high-definition programming package. In a spliced architecture, a technician would need to break each one of the 24 subscriber

connections, and then splice each individual fiber to the splitter outputs configured for the programming package. With a connectorized architecture, the technician would simply remove the 24 connectors from the designated subscriber ports, and reconnect them to the splitter outputs configured for the new service plan; and this is all done in a matter of minutes using plug-and-play connectors; no splicing or highly skilled labor is required. Clearly, the connectorized approach is the least taxing in terms of labor, time and cost.

ed near the street. Again, this requires the expertise of a spliced technician, and the service call may require cleavage, stripping and other construction equipment to complete the job. If multiple homes require turn up or changes in service, the labor requirements can quickly become arduous, not to mention expensive. In contrast, using a connectorized approach, the turn up process is simplified considerably. Construction crews use factory connectorized drop cable to connect the ONT at the home to the service

tomorrow's services - 3D television, virtual work commuting, tele-medicine, etc. - service providers who adopt a connectorization strategy in their network plans will be best equipped to rapidly respond to market demands. A fast response helps to minimize labor requirements, builds customer confidence, and ultimately staves off competitive pressures. Connectorization also ensures more network flexibility, where plug-and-play connectors promote easy changes, adds and reconfigurations. Simply put, connectoriza-

"Service providers, who invest in a connectorization strategy in their network plans, place themselves in the best possible position to respond to future services. "

As with the distribution plant, the access portion of the network offers immediate and long-term benefits with a connectorization strategy. When called to turn up a customer in a spliced architecture, service providers dispatch a construction crew to splice the drop cable from the home to the service terminal locat-

terminal. Due to the ease and speed which crews can mate the connectors, drop cable installation can be deferred until service is requested. It is a smart, cost efficient method for building fiber infrastructure.

No matter what is on the horizon for

tion offers the best solution for future-proofing your fiber network, whether it is in the central office, outside plant or premises.

For more information on connectorization and future-proof solutions for your next deployment, visit www.adc.com.

Meeting the Broadband Stimulus Challenge

By Randy Turner
Marketing Communications Manager
Walker and Associates

Walker has diligently observed the past year's developments with the American Recovery and Reinvestment Act (ARRA) of 2009. The Broadband Stimulus initiatives are finally paying off for applicants, and more funds are on the way. How can Walker assist you in maximizing your opportunities during this historic time?

You'll find several important resources available, including the two talented and knowledgeable associates pictured here. Chris Walker, pictured on the left, along with Anna Flippen, are 100% dedicated to promoting solutions

for applicants and award winners. During the application stages, these two have proven helpful in promoting an array of RUS approved products for your consideration. While Walker boasts relationships with more than 350 manufacturers (many have been added since our acquisition of non-affiliate assets of Windstream Supply ast summer), our emphasis here is to heavily promote the products we maintain in inventory. Since one of the criteria for your stimulus projects is a "shovel ready" status, we want to make sure you know we have materials and equipment immediately at your disposal once funds are awarded.

In addition, Chris and Anna are available by phone and email to assist you with specific questions about the current NOFA, put you in touch with engineering resources, and research questions about specific technologies. Once you have received your award, they are poised to assist with project management issues, match you with services available through Walker that will help maximize your award dollars, and connect you with additional resources through the life of your stimulus project.

Walker maintains a RUS Portfolio on its website at http://tiny.cc/o4JM3. You'll find many of your preferred manufacturers listed there, including ADC, ADTRAN, Emerson Network Power, Force10, Fujitsu, Symmetricom, Telco Systems, Telect, Tellabs, Westell and more. As you research materials that qualify for RUS funding, whether as part of either BTOP or BIP opportunities or not, this resource should be helpful in identifying readily available equipment that will stretch your budget dollars.

For several months Walker has been producing weekly promotions on selected products that are of particular interest for broadband projects. If you have not been receiving these html campaigns, you can contact either Chris or Anna. They will be glad to learn more about your interests, and add you to the HTML distribution lists.

As the national broadband plan develops, we want you to be successful in your endeavors. Our goal is to assist you throughout this entire process. Contact us today to learn more about the services we can provide as you navigate these historic opportunities.

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SIP Trunking Brings Many Benefits to Business

By ADTRAN

SIP Trunking brings a wealth of benefits to business networking. Many carriers offer SIP trunks today which allow businesses of all sizes to quickly and easily make the move to VoIP while preserving their investment in existing telephony infrastructure. An integrated access device or converged services product like an IP business gateway is used at the customer premises to consolidate voice, data, and Internet services onto a single circuit. There is no longer any need to purchase circuits for voice for connectivity to the PSTN and additional circuits for data. A converged service like SIP trunking simplifies equipment, consolidates billing, and provides the business with a dynamic circuit that allocates bandwidth on demand based on the current voice and data needs of the business. Whether interested in moving to an IP PBX and IP phones or utilizing an existing IP PBX or traditional phone system with analog phones, fax, and modems, a SIP Trunking service brings a host of benefits to the business user.

A VoIP intelligent IP business gateway is used for connecting LAN data devices and includes a router for data and Internet access. Often this product includes everything needed for connecting to the carrier's VoIP (SIP) network and for protecting the customer's data. A firewall and integrated VPN capabilities protect customer data while voice mechanisms like robust Quality of Service ensure voice traffic is delivered intact. The SIP gateway also includes voice ports and can provide local and remote VoIP survivability and performs any conversion from analog to IP voice. It handles all traffic, utilizing dynamic bandwidth allocation and shaping to ensure voice has top priority, with growth in bandwidth, on-demand, to support time of day or other increases in demand for voice bandwidth. When voice calls are not in use, the entire bandwidth of the circuit is afforded to data and Internet applications. With SIP trunking, additional bandwidth or users can be added quickly and easily as the growth in users or applications occurs. Likewise, IP business gateways for SIP trunking provide E911 support and emergency recovery protocols for disaster recovery to ensure voice and data connectivity at all times.

ADTRAN's Trunking Solutions

SIP Trunking

- NetVanta 7100 - IP Communications Platform
- NetVanta 7600 - IP PBX
- IP 706 and 712 - IP Phones

IP Trunking

- Total Access 900/900e Series - Single & Multi T1 IP Business Gateways
- NetVanta 6310 - Modular IP Business Gateway
- NetVanta 6355 - VoIP Multiservice Access Gateway

Some of the benefits of SIP trunking:

- Consolidates circuits and services – voice/data/Internet on a common circuit
- Reduces overall communication costs – less equipment, less circuits, better call rates
- Provides dynamic bandwidth allocation
- Enables business to reap the benefits of VoIP while utilizing existing telephony infrastructure and preserving their investment in existing PBX/IP PBX and phones/fax/modems
- Ability to quickly and easily add users as you need additional capacity and room for growth
- Inherent quality of service, security, and emergency recovery mechanisms come integrated into the IP business gateway

In summary, SIP trunking reduces costs, simplifies the network, provides inherent flexibility, preserves existing infrastructure investments, consolidates equipment and billing, provides user flexibility and dynamic bandwidth allocation, includes an IP business gateway that enables circuit recovery in the event of an outage, and provides room for growth for business networks.

Optical Distribution Frames and Fiber Optic Panels

ADC Optical Distribution Frames provide a centralized point for termination, splicing, slack storage and housing passive optical components, featuring industry-leading density and fiber management. Fiber Optic Panels provide fiber termination, splice and/or slack storage and excellent cable management in a high-density, discrete panel solution for network element, OSP, RNC and distribution network applications.

Coarse Wave Division Multiplexing (CWDM) Solutions

ADC Coarse Wave Division Multiplexing (CWDM) Solutions, part of the ADC's Value-Added Module (VAM) family, separate light, or wavelengths, allowing multiple signals to be transmitted simultaneously over a single fiber. The benefits of this are easily translated to your bottom line by installing easily, maximizing the existing fiber network and enabling out-of-band testing.

FiberGuide®

ADC's FiberGuide® Optical Raceway System offers the most robust fiber management with the greatest breadth of products. This innovative solution set is designed to protect and route fiber optic patch cords and multi-fiber cable assemblies between network elements and optical distribution frame areas.

OmniReach Multiport Service Terminals (MST)

The OmniReach Multiport Service Terminal (MST) incorporates hardened connector technology that is designed to withstand the rugged outside plant environment. These uniquely designed hardened connectors are factory-terminated and environmentally sealed for use in drop cable deployments in optical access networks.

You are Here. So is ADC.

Whether you are a Rural Local Exchange Carrier, Incumbent Local Exchange Carrier, Municipality, Utility Home Developer or Multiple System Operator, ADC's OmniReach® FTTX solutions and full range of turnkey services enable you to design the network that meets your needs and accelerates network construction and deployment to bring new advanced services to your customers.

Visit adc.com/rus for Broadband Stimulus information and ADC's RUS-listed products.

Walker and Associates carries the complete portfolio of ADC's industry-leading connectivity products.

OmniReach® Fiber Access Terminals

OmniReach Access Terminals provide a robust, user-friendly, and cost-effective platform for delivering fiber optic service drops in FTTX deployments. For both single-family homes, as well as multiple dwelling units, OmniReach access terminals provide physical protection, long-life reliability, superior fiber management, and an aesthetically appealing appearance.

OmniReach RealFlex™ Drop Cables

ADC's OmniReach RealFlex™ Drop Cables are an ideal solution for the unique challenges encountered when deploying FTTX networks in today's Multiple Dwelling Unit (MDU) buildings. RealFlex Drops allow for a bend radius as small as 7.5 mm without changing attenuation characteristics of the cable and improve insertion loss (IL) performance for 90 degree bend locations. In addition to the improved bend radius performance, the rugged cable construction provides the flexibility and durability to withstand the most demanding applications.

OmniReach Fiber Distribution Hubs

ADC's OmniReach Fiber Distribution Hub (FDH) solutions provide for rapid connection between fiber optic cables and passive optical splitters in the outside plant segment of Fiber-to-the-Premises (FTTP) networks, facilitating fast service connection and reconfiguration, simplified network installations and improved installation efficiencies in the field.

Business Enterprise Deployment Solutions - Customer Asset Management Program

By Lisa Smiley
VP/Marketing
Walker and Associates

Whether you are deploying VoIP, SIP trunks, or managed and hosted services, Walker and Associates has a solution that will make your service deployment much easier. Our Customer Asset Management Program (CAMP) offers a variety of options that your company can choose from to meet your needs. We manage your assets from inventory staging to customer deployment to handling customer churn. Your Regional Account Manager will walk you through your options and customize your solution.

We begin with warehouse management of your asset. Walker has an expansive warehouse where you will have a specific area designated for your company. You can view that inventory twenty-four hours a day using our online tools. You can review purchase orders and the status of your orders online as well.

Once you are ready to deploy that product to a customer for service delivery, simply provide a release order. This can be submitted online along with configuration information. That configuration then follows the order and is loaded onto your equipment. Configuration services are available for an IP phone, IAD, Router, Switch, IP PBX, IP Business Gateway, or any combination of units. Our configurations include the following:

- Basic Configuration --- customer supplies the WAN, LAN, Default Gateway and DNS IP information and we build the configuration and load on the product
- Global Configuration --- customer supplies their basic configuration and we input the unique IP Address Scheme
- Advanced Configuration --- in addition to the Basic Configuration information, additional Advanced Routing Protocols (OSPF, BGP, EIGRP) or Voice, Frame-Relay, NAT, VPN, Access-Lists or any other type of customer specific requirement is loaded on the product.

Once the configuration is loaded and tested, then your product is packaged. We can place a custom label on the package, or ship a combination of items together as kit. A kit might include an IP PBX and five IP phones, for example.

Since tracking of assets is important to your company, CAMP provides a full range of services to assist you with labeling and data management. We scan the serial number(s) from the packages and record them in our system along with the configuration for your order. This asset record is accessible 24/7/365 using CAMP's online tools, along with all of your invoices and their status.

The order will then be shipped and you can track it via our online tools.

If for some reason you experience customer churn you can count on Walker to perform reconditioning for redeployment. We will receive the displaced unit into our warehouse, recondition the unit, test it, provide the proper packaging, load a new configuration, and then redeploy the unit to another customer. All of this happens and your company never has to handle the equipment.

Walker has been performing value added services for over twenty years. We have migrated from simple kits, to multi-vendor integrated bays, to performing these configuration services. We move with the market through technology advancements. We also listen to our customers when it comes to fulfilling their needs. The greatest benefits of using Walker CAMP services are reducing your craft and technical personnel, tracking customer deployed assets, correcting poor material handling issues, reducing staging area/ warehouse space, and providing JIT customer deployment for service turn up. Contact your local Regional Account Manager to discuss your customized solution options today.

Network Element Management: A Hosted Solution

By Fujitsu

There is a way to reap the benefits of an EMS without large capital outlay. There are many Element Management Systems (EMS) on the market today that are capable of doing the job, but the IT infrastructure, software license and expert technicians needed to run an operator-owned EMS all require significant investment. This can make the operational, administrative and monetary benefits of an EMS more difficult to realize.

One of the biggest challenges is how to manage and operate your network cost effectively. While many operators elect to outsource network management completely, there is an alternative solution for those who want to maintain control of their equipment and scale their element management to fit their own network. A Hosted EMS solution relieves you of the need to purchase, administer and maintain your own software and server.

A managed service approach like the Fujitsu Hosted EMS is an ideal solution for operators who decide to actively manage their own network through an EMS, but prefer to outsource the server and software ownership, administration, and maintenance. As a subscription-based service (annual rates vary according to the number of Network Elements to be managed), Hosted EMS is a good choice for providers with smaller networks who prefer OPEX to CAPEX and are looking for an economical alternative to investing in the required EMS servers and IT infrastructure.

With Hosted EMS, Fujitsu provides access to a full-featured NETSMART® 1500 client, which the customer uses to manage their network. The Fujitsu servers are fully redundant, with daily backups of all customer data; customers access the system via secure IP tunnels over a public connection, providing a high level of security. In addition, Fujitsu is responsible for server and software maintenance. This enables customer savings on database and system administration, maintenance and licensing costs associated with the NETSMART 1500 application or the server hardware, and any hardware or software upgrade expenses.

"A Hosted EMS solution relieves you of the need to purchase, administer and maintain your own software and server."

The Hosted EMS solution, owned and administered at Fujitsu, provides an element management client that is 100% server-side redundant. We fully manage the EMS IT assets, directly enabling reduced operational and capital costs in several ways. If you operate Fujitsu optical networks and prefer a managed service solution, Fujitsu Hosted EMS is a flexible, price-friendly service that can solve operational worries and optimize the overall health and efficiency of your network.

Fighting for the CURE!

Donna Nichols, Manager of Walker's Secondary Resales Team, formed a team of associates to actively promote breast cancer awareness at Walker and Associates. Donna has been actively involved personally with the Susan G. Komen foundation for several years, but decided in 2009 to make it official with a company team effort.

Donna approached Mark Walker, senior staff and the company's board members for official sanction of her plans, and they gladly let her move forward. Walker is a family owned company that supports associates in many aspects of personal interests and community volunteerism. Active team members from Walker included: Donna Nichols, Cynthia Burrage, Holly Haworth, Stacey Myers, Teressa Peterman, Delores Salley, Mitzi Tester, Tracy Vogler, and Rodney Wise. The Walker team motto was "Fighting for the Cure one day at a Time!", which is exactly what millions are doing everyday.

Donna's interest in this cause is a personal one. Her mother was a Breast Cancer survivor for many years, but unfortunately she passed away last spring. Donna held the 2009 programs in memory of her mother. She expressed her feelings by saying, "You just don't realize how very much you love someone until they are gone. This was a task of love for my mother and all others who have fought the fight and eventually lost the battle in many aspects of life, not just breast cancer." Walker lost two colleagues this year to other forms of cancer and they will be greatly missed as well (Kathrine McKnight and Ann Myers).

Donna and her team more than doubled their pledge in 2009, which was no small accomplishment given current economic conditions. Plans are in place to make this an annual event, drawing even more attention and participation among associates.

CELEBRATE GOOD TIMES- WALKER TURNS 40!

Walker and Associates is celebrating its 40th anniversary in 2010. A full decade before divesture of the Bell giant, Walker was already firmly establishing itself in the telecom landscape. Along with all the changes in the industry, Walker has expanded its reach into new markets. Recognized nationally as a leading provider of next generation technology communications products, Walker has gained the respect of industry leaders ranging from customers to manufacturers.

In celebration of the 40th anniversary, Walker released a commemorative calendar, which pays special tribute to the 1970s. Featuring photos of associates, the calendar also highlights industry events and notes of congratulations from its customers.

Additional copies are still available. To request yours, either call Randy Turner at 800.401.2318, or email him at randy.turner@walkerfirst.com. Quantities are limited, so send in your request soon.

Addressing the Challenge of Packet Backhaul

Dave Lee
Vice President, Business Development
Telco Systems, Inc.

The combined need for greater bandwidth and lower costs have compelled mobile network operators to look for solutions that preserve their legacy voice infrastructure while taking advantage of the cost and scalability advantages that packet-based technologies (i.e., HSPA+, WiMAX, LTE) promise.

There are two major hurdles, however, that operators are facing when deploying IP/Ethernet (or packet-based) backhaul strategy. The first is accuracy and reliability of timing and synchronization.

The two most prominent options for synchronization over packet networks are IEEE1588v2 and Sync-E. The IEEE1588v2 standard is a packet-based sync recovery mechanism that is transported in-band with user data. However, without strict QoS policies applied to all devices in the path, it is susceptible to network congestion. Synchronous Ethernet (Sync-E) is a promising option as it is isolated from the user data path. Since it is a physical layer implementation, it requires that all devices in the network path support it in hardware. This means it will not work in conjunction with existing deployed devices that do not have the capability to support Sync-E.

Interestingly, base station vendors began on the 1588v2 path, while most network equipment vendors began down the Sync-E path. This, in conjunction with the issues stated above, presents a significant challenge for operators who are designing and deploying a packet backhaul network.

Telco Systems is introducing a number of new products which will address these issues by supporting “any-to-any” synchronization technologies. This will allow the provider to push a clock out from any source using any recovery mechanism. For example, supporting the conversion of BITS/GPS sources to Sync-E, then to 1588v2, and back again if necessary. This can be done while maintaining the accuracy required by mobile networks. These solutions will also support the phase synchronization requirements for LTE deployments.

Network congestion can be minimized with H-QoS support by enabling a QoS policy enforcement on a per service basis. This is in addition to a comprehensive set of OAM features thath ensure end-to-end quality of service monitoring and management. Multiple transport technologies – Provider Bridges, MPLS, H-VPLS, VPLS – provide the greatest degree of flexibility and scalability, and multiple resiliency mechanisms including FRR, G.8031/G.8032, Fast Ring, xSTP, LAG and LACP create a highly available network.

The second hurdle faced by operators is training and the ease of use of these new technologies. To ease this technology transition, Telco Systems is introducing a unique Service Management Platform designed to ease the operational side of deploying a packet backhaul network. It provides a full FCAPS network management solution, “end-to-end” service provisioning via a “point and click”, as well as planning and resource management tools to lower and optimize CAPEX and OPEX through an easy-to-use graphical user interface.

Through the combination of our mobile backhaul products and service management platform, Telco Systems solutions are ideally suited to fit transparently into a provider’s network. They offer a cost effective means to deliver IP services. In addition, they support legacy TDM services, delivering precise timing with great flexibility, tremendous bandwidth scalability and advanced traffic management. All are requirements for migration to high bandwidth WiMAX, HSPA+ and LTE services. Telco Systems significantly lowers the “cost per bit”.

2009 WALKER TOP PERFORMER AWARDS

Walker and Associates held its annual sales and marketing meeting in January, 2010 in Myrtle Beach, SC. Following days of sales strategy meetings, Walker followed its tradition of recognizing outstanding performers for the prior year's service at the annual awards dinner. Friends and co-workers came together for a time of celebration and camaraderie.

OEM Awards
Walker's tier one OEM partners enjoyed the opportunity to network with Walker's sales and marketing teams, and recognize top performers in 2009. Recognized for outstanding performance in outside sales were Melissa Daly, Bill Durham, Derek Granger, Bob Hodowanic, Tom Kingery, Eddie Lester, Rich Ferrante, and Lynn Soldano. The insides sales recipients of OEM awards were Matt Flowers, Kevin Foster, Lee Ann Gilley, Brandi Greene, Chris Lasley, Dwayne Miller, and Joyce Needham.

Company Award
Walker and Associates was recognized by ADTRAN for outstanding sales achievement in 2009. The award was presented to the company in recognition of being the largest service provider distribution partner for the year, representing Walker's seventh consecutive year of placement in this award.

Hank Ford Award
Lisa Smiley, Vice President of Marketing, presented the annual Hank Ford Award, which recognizes an OEM representative who understands and exemplifies the ideal vendor representative. The award is in memory of Hank Ford, formerly of Symmetricom, who died of cancer is 2003. Hank's years of service to Walker were performed at a superior support level, setting the bar for other representatives. The 2009 award was presented to Greg Norton of Force10 Networks. Lisa stated that "Greg is a fantastic individual and partner for Walker. We have worked with Greg for many years, and he has been a long time friend. His dedication to the success of Walker and Associates was recognized by many due to his hard work and support. I was proud to present this award to such a deserving individual." Greg's acceptance of the award was emotional and heartfelt.

President's Citation Award
This award is presented to marketing managers who achieve 100% of their annual sales goal. The marketing manager role is a technical marketing position, which requires an understanding of the dynamics of products and technologies that drive the telecommunications industry. The goal of this position is to apply and develop market strategies that will increase sales growth in specific technologies, product types, and across all OEM sales levels. Tyson Philyaw was recognized for achieving 113% of his annual plan. Tyson is very passionate about his daily efforts in order to be successful in his role.

Outside and Inside Sales Performance Awards
The year 2009 was one of ups and downs for many sales people. Achieving sales goals required a different approach than years past. It was imperative to have the right relationships and provide exceptional levels of support to customers, while also offering competitive pricing. Walker recognized multiple sales associates who worked hard in 2009 to perform at optimal levels. Recognized in outside sales were Melissa Daly, Rich Ferrante, and Lynn Soldano, and those recognized in inside sales were Brandi Greene, Chris Lasley, and Dwayne Miller.

Sales Person of the Year Awards
Tom Kane, Vice President of Sales, along with Nicholle Britt and Scott Stoll, Inside Sales Managers, took a special moment to announce two of the highest achieving sales awards attainable at Walker and Associates. Those were the inside and outside sales people of the year. Along with a trophy and a monetary award, the outside sales person of the year also earns the coveted Red Jacket.

The 2009 inside sales recipient was Lee Ann Gilley, who has been with Walker and Associates over 13 years. This is Lee Ann's third consecutive year receiving this accolade. She attributes her success to the valuable resources available at Walker as well as our suppliers. In Lee Ann's response she stated "I was flabbergasted when my name was announced, as I knew there were so many others who could have received this same honor. It is a pleasure to put forth the effort it takes to receive such recognition, because I make it my primary goal each day to serve my customers in the best manner possible."

The 2009 outside sales recipient was Ben Dierker who manages the southwestern US region and has been at Walker since 1999. This is Ben's second year obtaining this recognition. Ben stated "I am extremely honored and thankful for the recognition given to me by our sales management team. I would like to thank all of our associates and our manufacturer partners for their help in 2009. Without their support and dedication I would not have received this honor."

"Most people want success and understand that success is the direct result of achieving goals that began as dreams." From the book, Be the Red Jacket in a Sea of Gray Suits

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WALKER AND ASSOCIATES 40th ANNIVERSARY TOUR

JANUARY

SCTA Vendor Showcase	Columbia, SC
NTCA Annual Meeting & EXPO	Tampa, FL

FEBRUARY

AFCEA West	San Diego, CA
UTC Region 8, 9, 10 Meeting	Reno, NV
GTA 13th Annual Vendor Showcase	Macon, GA
LTA Annual Convention	New Orleans, LA
CalCom Showcase & Tech Expo	Sacramento, CA

MARCH

MTA Annual Convention	Minneapolis, MN
ITA 2010 Showcase	Portland, OR
NCTIA Technology Conference	Winston-Salem, NC
UTC Region 3 Spring Meeting	Orange Beach, AL
TSTCI Plantmen's Conference	Fort Worth, TX
RIITA Annual Conference and Expo	Des Moines, IA
MTIA Show-Me Expo	Boonville, MO
UTC Region 6 Annual Meeting	Lenexa, KS
CTIA Wireless 2010	Las Vegas, NV
SCTA Spring Convention	Hilton Head, SC

APRIL

Texas Communications Expo	Belton, TX
TANE Spring Educational Symp.	Bethel, ME
OTA 2010 Outside Plant Seminar	Newport, OR
OTA 115th Annual Convention	Columbus, OH
Broadband Properties Summit	Addison, TX
RCA 18th Annual Convention	Las Vegas, NV

MAY

TTA 2010 Spring Meeting	Franklin, TN
NDTA TOC Conference & Showcase	Fargo, ND
OTA / WITA Joint Annual Conf.	Skamania, WA
UTC TELECOM 2010	Indianapolis, IN
KTA Annual Meeting	Lexington, KY
SPAWAR Homeland Security Innovation Conference	Charleston, SC

JUNE

AMTA 2010 Summer Symposium	Destin, FL
FAA Small Business Symposium	Oklahoma City,
OK ITA (IL) Annual Convention	Lake Ozark, MO
ITA (IN) Annual Convention	Florence, IN
Tri-State TCI Technology Conf.	Norfolk, VA

JULY

CTA Summer Showcase	Loveland, CO
TCEI PSAM Event	Marble Falls, TX

AUGUST

LandWarNet Conference 2010	Tampa, FL
MTIA Annual Conference	Branson, MO
NTA 2009 Expo	Lake Tahoe, NV
Tri-State Telecom. Conference	Midway, UT
TTA Annual Convention	Murfreesboro, TN
NC Chapter AFCEA Show	Fort Bragg, NC

SEPTEMBER

TANE Annual Convention	Dixville Notch, NH
OTA CO / Info. Tech. Seminar	TBD
TTA Conv. & Product Showcase	Horseshoe Bay, TX
ITA Vendor's Showcase	East Peoria, IL
FTTH Conference and Expo 2010	Las Vegas, NV
WTA Fall Annual Meeting	Coeur d'Alene, ID
PTA Technical Showcase	State College, PA

OCTOBER

NCTIA What's New Expo	TBD
WSTA Fall Conference and Exhibits	Wisconsin Dells, WI
OSP EXPO 2010	San Antonio, TX
MATSS	Kansas City, MO
KTA-TTA Conference/Showcase	Bowling Green, KY
Midwest Telecom Expo	Fort Wayne, IN
ATA Associate Member Showcase	Anchorage, AK

NOVEMBER

ITA Annual Convention & Showcase	TBD

DECEMBER

MTA Annual Showcase	Billings, MT

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