



# INTERNET TELEPHONY®

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Who?

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# WiMAX?

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# Future-Proofing Your Network Environment

**S**uccessfully future-proofing your network environment includes achieving cost and functional efficiencies, particularly in today's economy. A balanced network needs to provide compatibility, expandability and flexibility to support a vast number of new and emerging Ethernet devices with various power requirements. The most effective and practical solution is "power-on-demand" midspan technology.

Originally, PoE switches were being deployed to power low-wattage endpoints such as VoIP phones, wireless access points and entry-level IP security cameras. Today, many of these devices have evolved into more advanced solutions with specific power requirements. To handle these higher-power devices, the old approach was to endure a "forklift upgrade" and buy new PoE switches at a considerable cost to meet these higher power requirements. But it's actually more efficient and less costly to separate data and power devices, keeping a best-in-class business switch for IP needs and supplementing it with best-in-class midspan technology to power the endpoints. This achieves full power on every port, gains support for both the legacy PoE standard (IEEE802.3af) and the higher-power (IEEE802.3at) standard, while providing greater flexibility for 75% less than the cost of replacing a business-class switch.

Today, most PoE-enabled switches rely on power management to share available power across the switch ports. Switch designers made the assumption that no one needed the full 15.4 watts per port specified in the IEEE 802.3af standard. The standard also specifies the maximum power consumed by a powered device at 12.95 watts to compensate for line loss.

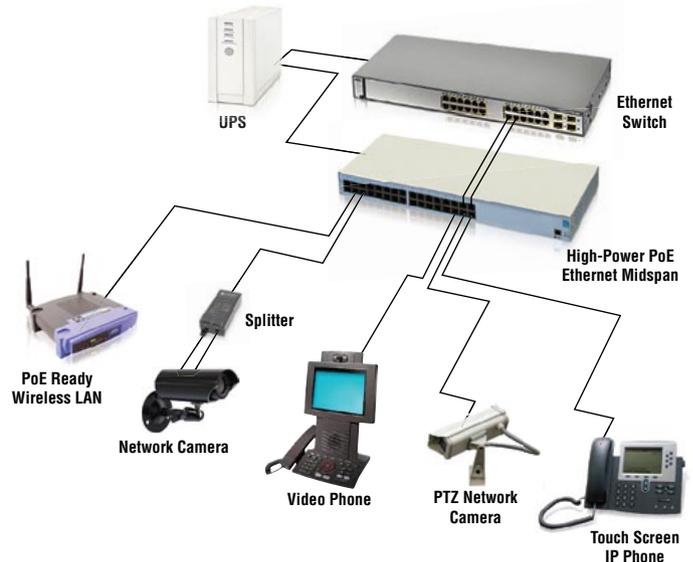


## Not Enough Power for Ports

If a bank's 24-port L2+, 195-watt, PoE-enabled switch uses 40 watts to power the switch; there are 155 watts of power left to use across the 24 open ports. If the bank deploys 10 IP cameras using 7 watts each, the switch provides 70 watts to power the cameras with 85 watts remaining to share across the open 14 PoE ports. When the bank expands by deploying 8 more cameras with pan and tilt capability, the new cameras require 13 watts each for a total of 104 watts (only 85 watts available). Even though you have enough available ports, the switch cannot power all 18 cameras. Based on the old "forklift upgrade" premise, this would require the purchase of another L2+ 24-port PoE switch. But a \$500 midspan can provide more functionality with greater flexibility for even further expansion. Why spend more to get less?

## The Preferred Choice: Power-on-Demand Midspans

The practicality of letting a switch do network switching while utilizing a midspan to provide power-on-demand is obvious when considering devices beyond basic cameras. In the case of powering full-function outdoor security cameras, the number of ports is no longer the issue. If each camera requires 12W of power, it's almost certain that a PoE-enabled, 195W switch will run out of available power before it runs out of ports.



Power management works when distributing different loads of power to specific ports on a PoE switch, but is pointless if there is not enough power for all the ports. Rather than utilizing power management in a switch, the answer is a 400W midspan that can cost-effectively deliver 15.4 watts of power in every port and provides for instant network expansion. If a 400W midspan sells for under \$500, why pay \$2,500 to \$5,000 for a switch, only to get 24 ports and 195 watts with no additional switching benefits?

## Not All Midspans Are Created Equal

When the time comes to future-proof your network, all midspans are not the same.

- Select a best-in-class midspan that was designed and manufactured by a proven power-supply company that understands power.
- For better quality and cost control, select a midspan manufacturer that manufactures its own product rather than outsourcing across the globe.
- For the best pricing structure, select a manufacturer that designs, manufactures and tests its products in-house rather than relying on a third party manufacturer.
- Select midspans designed around an open silicon platform, allowing them to operate with multiple-vendor PoE chips.

A midspan that offers full power per port is the best choice for future-proofing a network, because no matter what the end-device requirements, the power is available. As more devices are supported by enhanced standards, midspans provide options, flexibility and cost savings. **It's time to talk to the leader in advancing PoE technology—Phihong, the name behind Midspans.com.**

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# Telecom Saves the World (or Not)

The topics of several articles in this month's issue have, over the years, acted as lightning rods of sorts for consumers, enterprises and network operators. They are as follows: **WiMAX** and other Wireless Broadband alternatives, Telecom Expense Management, and conferencing and collaboration.

Interestingly, the current economic world situation seems to be intensifying public sentiment and activity in the above-named areas. If the global telecom equipment market is any guide, with the market having grown by nearly 5 percent in 2008, only to shrink by a projected 1 percent in 2009 (according to researchers at IDATE), we can expect increasing levels of apprehension by just about everybody, which should be good for the Telecom Expense Management (TEM) industry. Indeed, as Noel Huelsenbeck of **Vocio** wrote recently in the *Telecom Expense Management Blog*: "Clearly the 'Technology Trigger' that created the Telecom Expense Management space was the dotcom implosion (circa 2001). It was then, not unlike now, that the economy was depressed and most corporations were focused on lowering expenses. It was during this era when many newly created Telecom Expense Management firms began their journey to tame telecom expenses." He also says that 2009 looks to be Vocio's best year ever.

The latest TEM platforms go way beyond checking phone bills (like in the old days) and instead have branched out into such things as Ordering/Procurement Management, Inventory Management, Wireless (Mobile) Expense Management and "Business Intelligence" or "Intelligent Total Communications Management", which means that TEM is really starting to enter the world of Enterprise Resource Planning (ERP).

Wireless/Mobile Expense Management is now the hallmark of today's most advanced TEM systems, since the world's working population continues to forsake office space for mobility, whether they want to or not. Wireless broadband alternatives such as WiMAX and LTE are the missing pieces of the puzzle that will finally make mobile unified communications a reality, as well as high-end teleconferencing systems such as telepresence and ultimately total holodeck-like virtual presence.

Metcalfe's Law, "the value of a telecommunications network is proportional to the square of the number of connected users of the system" (which was actually stated this way in terms of users and not devices by George Gilder in 1993) should be amended to: "the square of the number of connected users of the system, subject to two multipliers: one multiplier is proportional to average bandwidth capacity of the links comprising the network, the other multiplier is proportional to the number of wireless links."

Thus, the largest network wins out over smaller networks, unless all links on the smaller network have many times the bandwidth of those on the larger network, and/or if users can be mobile as they tap into the network. Think of a user and his or her laptop roaming about the landscape with a multi-megabit per second WiMAX and LTE service, and then think of the Internet's original stationary terminals connected to a 56Kbps network.

There has always been an expectation that, in the face of adversity, technology will rise up and save us all. It doesn't matter whether it's world hunger, overpopulation, a plague, or global warming – technology will rise to the occasion. There's a bit of such sentiment when it comes to telecom, which is why money-conscious "fence sitters" who were endlessly thinking of adopting IP communications, TEM and what-not, finally decided to do so, resulting in TMC's best ITEXPO ever.

Let's hope telecom doesn't let us down. **IT**

*Richard Grigonis is Executive Editor of TMC's IP Communications Group.*

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## Plantronics Redefines Unified Communications Endpoints

Historically, people never expected great technical innovation when it came to headsets. Certainly wireless standards like DECT (initially championed by Siemens) and Bluetooth have brought headsets into the tech space but for Plantronics, these were but a stepping stone, a means of tighter integration into the world of unified communications.

After 40 years of making industry-leading headsets, Plantronics has now upped the ante with a new product suite, Savi Office, designed to add intelligence, flexibility and ease-of-use to communications endpoints – it's designed for office workers, providing them with a single wireless headset for desk phones and PC audio/softphone calls.

Additionally, the company announced Savi Go, their mobile solution designed to give professionals a simple-to-use wireless headset to connect to PCs and mobile phones.

Savi Office is a really interesting offering in that it allows the audio from IP communications calls coming from a computer to be mixed with the audio coming from a phone so you are able to conference a Skype and PBX caller quite easily.

There's support for wideband audio (otherwise referred to as HD voice) and the company tells me that, in informal tests, users don't mind giving up the stereo headset experience for wideband in one ear. For those of you wanting the best of both worlds, stereo options should be available soon.

Plantronics has taken great pains to ensure that the accompanying software has tremendous flexibility, allowing custom ringtones and other options. In addition, IT departments can block users from making changes if they so desire. Moreover, Plantronics has made sure that headset bases are interchangeable so they can be standardized to minimize inventory needs. And in a nod to the changing workplace, where multiple people share a single workspace, the company has not put a limit on how many of these DECT-based headsets can be connected to a single base. Moreover, the headsets allow impromptu conferencing with a maximum of four connected at once for training or other purposes.

There is also state-of-the-art power management: the headsets know how far they are from the base; when nearby they go into a low-power mode to save battery life and energy consumption. Another great feature is downloadable firmware that minimizes product returns if upgrades are needed for proper performance.

While Savi Office targets professionals who spend much of their time in the office, Savi Go is really focused on bridging the mobile and office worlds by interfacing seamlessly between mobile phones and softphones (a Bluetooth dongle is included as part of this solution). A smart move by the company is the longer microphone boom included in this solution which allows for better audio quality on the road, in a car, in a noisy hotel lobby, etc. In addition, Savi's Class 1 Bluetooth technology ensures range of 200 feet instead of the typical 33-foot range of most Bluetooth devices. This solution's first edition works seamlessly with Microsoft OCS; a more "agnostic" solution will follow shortly.

My impression is that Plantronics has taken headsets to the next level with a blend of software and hardware innovation. Also, they have moved upmarket with these solutions and in doing so provide more flexibility for companies looking for the latest UC solutions to boost productivity and sound quality. Although the Savi products have noise cancelling microphones, to make a killer solution the company needs to add a noise-reducing binaural Bluetooth stereo option so people can ditch their single function noise-cancelling headphones once and for all. **IT**

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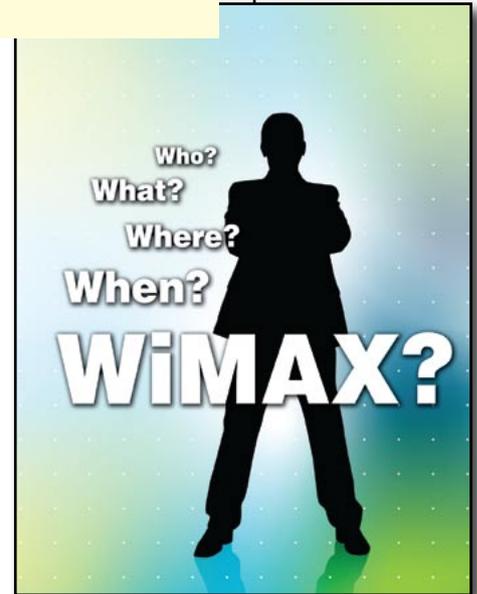
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Here's a list of several articles currently on our site.

### Frost & Sullivan: Telcos Should Focus on Innovation in Down Economy

How is the telecommunications sector likely to be hit by the current economic crisis? New research by Frost & Sullivan shows that two factors are going to prove decisive to this sector. Firstly, investments are likely to be reduced because of the difficulty in finding credit. Secondly, with consumers choosing to economize, the services used are also going to diminish.

[www.tmcnet.com/4447.1](http://www.tmcnet.com/4447.1)

### Beth Israel Medical Center Employs Meta's Electronic Physician Query Software

Meta Health Technology, a provider of health information management solutions for hospitals, physician group practices and long-term care facilities in United States and Canada, has declared the implementation of its Electronic Physician Query Software by Beth Israel Medical Center, a tertiary teaching hospital and a part of Continuum Health Partners.

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### Current State of Economy Spurring Growth in Contact Center Industry

The reality is that the decline in the economic conditions has been a positive shift for contact centers. In fact, forced cost cutting and layoffs by larger organizations has initiated the increased outsourcing of services that were previously provided by contact centers located in-house.

[www.tmcnet.com/4449.1](http://www.tmcnet.com/4449.1)

### Cablevision Attracting New Customers with its Free Muni Wi-Fi Service

If you're a cable operator with mobility on your mind, and you're seriously considering rolling out municipal Wi-Fi as an added service for your customers, you might want to take into account Cablevision's recent success with Optimum Wi-Fi, a complementary outdoor Wi-Fi service for existing broadband subscribers which the company launched last year.

[www.tmcnet.com/4450.1](http://www.tmcnet.com/4450.1)

### TMC's Whitepapers of the Month

Visit TMCnet's Whitepaper Library ([www.tmcnet.com/tmc/whitepapers](http://www.tmcnet.com/tmc/whitepapers)), which provides a selection of in-depth information on relevant topics affecting the IP Communications industry. The library offers white papers, case studies, and other documents that are free to registered users.

### SMS Security - Malicious attacks are just around the corner. Are you protected?

The messaging market is growing rapidly and has become a very profitable piece to the mobile operators' revenue puzzle. Unfortunately, growing security threats such as spam, spoofing, flooding (DoS attacks), fraud and handset viruses pose an increasingly significant threat to the mobile operator. Although these threats haven't made a big impact to operators' bottom lines yet, the security threats and seriousness of them will increase quickly, just as they did with PCs. This whitepaper discusses how operators can leverage monitoring and advanced security techniques to protect their mobile subscribers, network and business.

[www.tmcnet.com/4451.1](http://www.tmcnet.com/4451.1)

### SIP Pocket Guide — Session Initiation Protocol (SIP)

Session Initiation Protocol (SIP) is a signaling protocol used for creating, modifying, and terminating sessions with one or more participants in an IP network. SIP has been adopted by the telecommunications industry as its protocol of choice for signaling. SIP is an RFC standard (RFC3261) from the Internet Engineering Task Force (IETF), the body responsible for administering and developing the mechanisms that comprise the Internet. Tekelec's SIP Pocket Guide is an exclusive reference guide for Session Initiation Protocol professionals.

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### Four Key Ingredients For Successful Mobile Services

Mobile Service Providers struggling to compete and succeed in the changing 3G market must address the need to enhance their voice offerings and deliver new, winning mobile applications, mobile video and innovative experiences for their customers. Many companies are accomplishing this by consolidating on a single, software-based platform that also allows them to launch innovative new services that go beyond voice to video, instant communication, video conferencing, and other new ways their subscribers want to communicate. This whitepaper discusses four key ingredients for making the approach work: IVR consolidation, flexible deployment, new media capabilities, and a future-proof platform.

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By: Brough Turner



## WiMAX May Save IMS

IMS has been discussed for a decade and specifications have been available since 2002, however adoption is minimal. There are partial IMS deployments for specific new services, but mobile voice telephony continues to rely on

traditional GSM protocols. It was expected that deployment of LTE radio networks (which are completely packet-based) would require the widespread adoption of full IMS, but now several developments suggest IMS will be further delayed.

First, the widespread adoption of 3G USB modems means most data passing over 3G networks is going to and from the public Internet. For mobile Internet access, there are no QoS expectations and thus no need for IMS. Second, the success of Apple's iPhone "App Store" has prompted similar application stores from Google, Microsoft, Nokia, Adobe and others. An expanding community of application developers is producing thousands of new applications — far more than any mobile operator could dream of two years ago. But these new applications access the mobile Internet with no need for IMS. As a result, it's increasingly likely that initial LTE networks will be used for bulk data access while voice telephony remains on existing 3G networks. With LTE used only for mobile Internet access, there's no need for QoS and no need for IMS.

Finally it appears the GSM community is looking for ways of providing voice services on LTE using traditional GSM

signaling, i.e., without IMS. Several efforts are on the table including 3GPP TS 23.272 Circuit Switched (CS) fallback in Evolved Packet System (EPS) and a study document TS 23.879 for CS services over EPS.

So is IMS finally dead? No. Large equipment providers have developed IMS equipment and partial IMS deployments are in service for specific new services like Push-to-Talk over Cellular (PoC) and Fixed Mobile Convergence (FMC). While no GSM or CDMA operator is using IMS for regular voice service, the equipment has gone through trials. All that's required is an opportunity and that may exist in mobile WiMAX. WiMAX was designed for data. There is no prior voice telephony support, no circuit switching. If voice is to be offered on a WiMAX network, it will need a system like IMS. Furthermore, like any cellular network, WiMAX cells are shared and subject to congestion during peak traffic, so some QoS will be beneficial for voice telephony — again IMS is a potential solution.

WiMAX networks now being deployed are mostly data networks for Internet access, but WiMAX operators are eyeing mobile voice services as voice is still the killer app. So indeed, WiMAX may save IMS. **IT**

*Brough Turner is Chief Strategy Officer of Dialogic ([www.dialogic.com](http://www.dialogic.com)).*

## Inside Networking

By: Tony Rybczynski



## CIO Priorities Dovetail UC Capabilities

Thirty-Five percent of respondents to CIO Insight's survey identified improving business processes as a business priority in 2008, making this area top of mind only behind delivering better customer service. A similar

number identified collaboration as the #2 technology that will make the most significant contribution to their business strategy.

In 2009, these can provide stronger alignment between IT investments and the business, particularly critical during these economic times. There are five strategic imperatives to meet these business priorities:

**1. Deploy Unified Communications to increase productivity and employee satisfaction.** Unified communications (UC) breaks down the barriers between various modes of communications and across various user devices. It is important that all future investments in communications be made within the context of rolling out UC.

**2. Target project teams for integrated collaboration through UC.** UC solutions include various forms of conferencing and telepresence, and can improve collaboration and allow customers and employees to work together more effectively and quickly across a highly distributed environment. Rich collaboration can provide a powerful business case to justify UC investments.

**3. Communications enable your business applications.** Human delays are slowing down your business processes and this is costing real money. Communications enabled applications accelerate 'time to X' — time to decision, to revenue, to service, to support, or to product. UC's productivity potential is extended through communications-enabled business applications.

**4. Educate key business stakeholders.** Enhancing business processes extends to environmentally-aware business applications that manage a broad range of assets (e.g., critical equipment, vehicular fleets, and energy-consumption). CIOs will have more success implementing these types of business improvements by educating key stakeholders about potential ROI and operational gains.

**5. Use technology to reduce TCO.** There are three tools to simplify communications infrastructure: 1) software-centric UC, not only unifying the client experience but also the infrastructure; 2) Service Oriented Architecture enabling communications-enabled business processes; and 3) improved performance, scalability and reliability in the *data network*.

The above points to the need for openness in four areas: the desktop, UC applications, the back-office environment, and the underlying voice, data and video infrastructure. Anything short of this will result in bottlenecks to application innovation. **IT**

*Tony Rybczynski is Director of Strategic Enterprise Technologies at Nortel ([www.nortel.com](http://www.nortel.com)).*

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# Telecom Expense Management

Global Online Community

## Visit the NEW Telecom Expense Management Solutions Global Online Community

Get the latest news and information on managing fixed and mobile communications expenses. The community — sponsored by TnT Expense Management, and powered by TMCnet — allows visitors to connect with industry experts, gain valuable insight into communications management best practices, and increase their understanding of how TEM can impact the bottom line.

## The Telecom Expense Management Community will showcase daily content updates, including:

- Informative articles
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<http://telecom-expense-management-solutions.tmcnet.com/>



By: Jeff Hudgins



## First the Tick, Now the Tock

The first year of the Intel Tick-Tock model ("Tick") refers to the new silicon process technology which increases the transistor density within a smaller existing microarchitecture. The second year ("Tock"), refers to the introduction of a new processor microarchitecture to optimize the value of the increased number of transistors. 2009 is the "Tock" year of the new Intel Microarchitecture (Nehalem). Computer Manufacturers, Independent Software Vendors, and end users will all feel the affects of this technology transition over the next 18 months. And like any technology shift, timing is critical.

Let's first consider the impact to adjacent technologies in the system. Memory will be forced to transition from DDR2 to DDR3 under Nehalem. The projected shipping volumes of these two DRAMs are projected to reach parity sometime in the third quarter of this year. One would expect to pay a premium until parity is reached. Operating systems such as Windows and Linux have a limited ability to use the 32 threads available with Nehalem. The operating system could potentially trip over itself as threads compete for resources.

Next let's focus on the application itself. In an eight socket system supporting up to 128 threads, only highly specialized applications will be able to make effective use of the system. The addition of more cores

provides capacity to run more independent tasks simultaneously, however, single threaded applications will not be able to take advantage of more cores. Individual software tasks may see only a modest per-core performance boost, unless the application is written with enough threads to exploit the number of threads and cores in the system.

Finally, there are some side impacts to the environment to consider. Intel used a strict power/performance efficiency threshold to measure against. If a feature could not add more than 1 percent performance gain versus 1 percent power gain for a less than 3 percent power cost, then the feature was not added. This strict process ensures the most efficient processor design. Virtualization is an ideal application for the new Nehalem microarchitecture as well and a perfect opportunity to lower enterprise or data center power budgets.

**Final Score.** The best time to move to the new Nehalem microarchitecture will depend upon many factors, but the final decision will depend upon the competitive environment and customer impact. If improved performance, bandwidth, and power efficiency will differentiate the solution, then the time to begin the transition process is here. **IT**

*Jeff Hudgins is VP of Product Management at NEI, Inc. ([www.NEI.com](http://www.NEI.com)).*

## VolPeering

By: Hunter Newby



## The Bank of the PSTN

As most businesses small and large try to cope with the reality of the current economy they wonder how they will manage their financing needs. Banks are not lending, even though the government gave them billions.

Equity has been halved in many companies, so selling more of it to investors or the street is not a pleasant thought. Expenses need to be cut in order to survive, so where can one turn without going the typical route of just laying people off?

The Bank of the PSTN is open for business. The PSTN is a bloated, overweight and out-of-shape excuse for a communications system. (Sorry Mr. Vail.) Similar to our government itself, it is wasteful, very expensive to maintain and has within it countless local loopholes that drain the funds from anyone trying to use it. There is a better way.

Cutting operating expenses in half by creating a better network is not for everyone. It requires a brain, will and energy. If any of the three are missing it won't work. The fundamental shift is from circuit-switched TDM to the packet-switched VoIP and it is no longer a leap of faith. The truth is that VoIP works

and that if your business does not switch to it you are certain to continue spending too much. In today's economy that may mean the difference between staying in business and not. For those fearful about security, know this: you are not trading the PSTN for the Internet. You are exchanging TDM for IP. From that simple reality comes 90 percent of the savings. Places where the fat will be trimmed include the cost per minute of a call, the local access from T1 to Ethernet, the cost per port on the equipment, self-provisioning of numbers, in-house IT department control of troubleshooting and repair and much more.

Moreover, the \$6 billion Broadband Stimulus Bill making its way through Washington DC right now won't be spent on TDM, but on Ethernet, wireless Ethernet and wavelengths as well as other broadband technologies. The future is now and it has been with us for several years. Inaction is a luxury that can no longer be afforded by those who do not use VoIP. **IT**

*Hunter Newby is the Chief Strategy Officer and a Director of a Special Purpose Acquisition Corporation focused on the communications industry. Reach him at [hunter@hunternewby.com](mailto:hunter@hunternewby.com) or visit [www.hunternewby.com](http://www.hunternewby.com).*

## The **Call Recording** Global Online Community

Today's competitive landscape necessitates that businesses do whatever is within their power to improve performance, while complying with state and federal mandates and regulations. That's why many businesses have already deployed company-wide call recording technology. Call recording helps ensure regulatory compliance, enhance training and development capabilities, increase customer satisfaction, limit legal liability, and provides a record of audio transactions for clarity and continuity of operations.

The Call Recording Community is your resource for call recording solutions for businesses of all sizes, including SIP Print's SIP-based call recording appliance, a system-level call recording solution for today's VoIP phone systems.

- ~ Breaking News
- ~ Feature Articles
- ~ Call Recording Blog
- ~ Real-world Use Cases
- ~ Product Demos
- ~ Partner Spotlights
- ~ Expert Commentary



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**Log On Today!**

<http://call-recording.tmcnet.com>

By: Lisa Stockberger



## Ten Steps to Successful Software Implementation (or how to save money and grow staff during tough times)

"This is just like a normal Monday!" That was a contact center Supervisor at 11:00 a.m. the day a new customer service application went live. Not only did the cutover go smoothly, the project came in several million dollars under budget. All music to this contact center consultant's ears.

How can *you* achieve this kind of success?

**1. Consistent support for the project from the top.** Senior IT and business management delivered key messages to team members and the organization as a whole. Management reviewed project status on a regular basis, moving quickly to remove barriers.

**Design and implementation teams were composed of vendors, consultants and internal IT resources. So when vendor and consultants left the project, internal IT staff had the know how to support and extend the application.**

**2. Minimal software customization.** This crucial decision saved money during implementation and will continue to save money over the years.

**3. Get process design right.** Cross functional teams designed processes and developed business requirements. This enabled departments to understand how their processes affected other groups and reach consensus on the best approaches to shared processes.

**4. Focus on configuration.** A critical area for CRM or any other implementation is ensuring that employees are assigned the appropriate roles and access.

**5. Make knowledge transfer a mantra.** Design and implementation teams were composed of vendors, consultants and internal IT resources. So when vendor and consultants left the project, internal IT staff had the know how to support and extend the application.

**6. A well-managed project plan.** Project planning started nine months before go-live. The plan had dozens of iterations as business needs and integrations with other applications solidified.

**7. Clear data conversion strategies.** Strategies were carefully thought out and implemented with a range of solutions from systemic fixes to manual changes. Clean data at go live smoothed the implementation.

**8. Practice, practice, practice.** We conducted a total of six mock go-lives. The last involved every member of the organization who would use the new application.

**9. Reward team players.** Front line employees who participated in the project were rewarded through promotions and opportunities to transfer to other departments to broaden their skill sets.

**10. Create a sense of community.** Two years working long hours, negotiating process design and business requirements broke down silos and forged working relationships that will support the organization for decades to come. **IT**

*Lisa Stockberger is a Vice President at Vanguard Communications Corporation, a consulting firm that specializes in contact center processes, operations and technology ([www.vanguard.net](http://www.vanguard.net)). Contact her at [lstockberger@vanguard.net](mailto:lstockberger@vanguard.net).*

### Did you know...

In a recent report titled "North American Hosted IP Telephony Service Markets," Frost & Sullivan says the number of hosted IP telephony lines will grow to approximately 3.6 million in 2014, up from nearly 1 million at the end of last year. Integration with UC and business applications will serve end-users seeking a competitive edge, as well as communication vendors and service providers aiming to pick up market share and revenue.

By: William B. Wilhelm Jr. & Jeffrey R. Strenkowski, Esq.



## The State Regulation Continues to Creep in on VoIP Providers

After the release of the FCC's *Vonage Order* in 2005, many states scaled

back their plans to regulate VoIP for fear of tripping over the FCC's jurisdictional framework. Several went so far as to pass legislation preventing local public utility commissions (PUCs) from regulating VoIP services whatsoever. However, in recent years many states legislatures and PUCs have started to dip their toes in the VoIP regulatory waters. The first wave of state-based VoIP regulation began with the adoption of E911 assessments on VoIP lines. These rules, however, differ among most states, and careful examination is required to determine how they apply, and what services they cover – one result the *Vonage Order* sought to prevent. The next wave saw several states attempt to bring VoIP services into their Universal Service Fund contribution systems. Several VoIP providers have pushed back, and in so doing, have obtained some favorable court decisions upholding the federal-state jurisdictional lines drawn in the *Vonage Order* Litigation over the permissibility of these charges is ongoing.

Recent legislation in several states has sought to regulate VoIP on a new range of issues. For example, New Mexico is currently considering legislation that could subject VoIP providers to rules

on the discontinuation of services to customers, and would allow customers or other service providers to file complaints with the New Mexico Public Regulation Commission for service discontinuations that violate state standards. Washington State is likewise considering a bill that would prohibit state agencies from regulating VoIP rates, terms or conditions of service, but would potentially allow those agencies to impose fees for E911, telecommunications relay service, and the state universal service fund. It would also give the Washington State agencies the ability to require VoIP providers to pay any switched access charges or other intercarrier compensation that may eventually be determined to apply to VoIP services. Other states have recently sought to clarify issues related to taxation, service quality standards, access to E911 systems and infrastructure, and other matters. Until Congress, the FCC or the courts provide a more specific jurisdictional demarcation, VoIP providers should prepare for the infusion of more state-based rules, fees and surcharges. **IT**

*William B. Wilhelm is a partner and Jeffrey R. Strenkowski is an associate at the global law firm of Bingham McCutchen LLP (www.bingham.com). The preceding represents the views of the authors only and does not necessarily represent the views of Bingham McCutchen LLP or its clients. Bingham McCutchen represented the Petitioners in several of the cases described above.*

## Ask the SIP Trunk Expert

By: Steven Johnson



## The Importance of One Converged Network

Enterprises can connect to SIP trunks in a variety of ways, thanks to an increasing array of options now available from Internet Telephony Service Providers (ITSPs). Two

common methods are connecting via a managed service and directly over the Internet.

The full potential of SIP trunks – in both scenarios – can only be achieved when the voice and data networks are truly converged. Only then can SIP trunks support an array of beneficial features such as supporting soft clients, connecting remote workers and allowing users to manage their account on the PBX or application server.

With a managed service, service providers connect enterprises to SIP trunks over a managed line, where the ITSP hosts the SIP trunk service separate from access to the public Internet. The SIP trunk service provider connects the enterprise into a LAN created in its service cloud. In this scenario the voice and data networks are separated, and certain features that are enabled with SIP are not possible, such as support for remote workers

and the use of soft clients from PCs that have no access to the separate voice network. Here a border element can be utilized to merge the two networks, so that the Quality of Service (QoS) benefits of the managed connection are maintained, but the promise of converged communications can be supported.

Carriers can also connect enterprises to SIP trunks directly via the Internet, through the enterprise firewall and directly to the data LAN. The enterprise must enable NAT traversal to permit the SIP signaling to enter the network. The enterprise must also maintain its security defenses, permitting SIP traffic to enter the network while preventing unauthorized access or use of the servers on the LAN or the telephony system. In this case the border element provides the necessary functionality to resolve these issues and enable more advanced SIP capabilities.

SIP trunking is a service that offers great benefits to the enterprise. With a high quality edge device, service providers and enterprises can be assured of high quality voice without concern for losing control of the converged network. **IT**

*Steven Johnson is President of Ingate® Systems (www.ingate.com).*

# Avi Lonstein, CEO of AireSpring

By Richard “Zippy” Grigonis

**A**ireSpring ([www.airespring.com](http://www.airespring.com)), headquartered in Los Angeles is one of the fastest-growing U.S. telecom carriers, with over 3 billion call records processed every year. AireSpring is a privately-held, diversified and full service communications company that offers a wide range of innovative telecom services at competitive prices.



**AireSpring** offers next-generation integrated, SIP/VoIP, voice, and data products. AireSpring has been voted, by its peers in the Telecom Association, as the “Members Choice” top reseller for three consecutive years (2006-8). To date, Airespring has set the record for more Telecom Association awards (11) than any other carrier/reseller.

As of January 1, 2009, AireSpring customers who are signed up for one of the AireSpring Network Local Phone Service products – available for TDM, Voice over IP (VoIP) and SIP enabled equipment – will receive free calling between all of their offices and locations without the need for expensive VPN, MPLS, Frame Relay or Private Line Networks. The new free calling feature allows any company with offices scattered across the country, or around the world to slash their monthly phone bills. AireSpring services over 160 cities worldwide and you can additionally assign a U.S. number to an office located anywhere in the world.. There is no additional charge for Free Interoffice Calling and it is automatically included on all Airespring Network Local Phone Service products.

The average multi-location company makes up to 85 percent of their calls between offices. With AireSpring’s free calling offer, all of those interoffice calls would be free. Any company can take advantage of AireSpring Free Calling by setting up AireSpring Network Local Service at all of their branches/office locations.

Recently, Yours Truly held a Q & A session with AireSpring CEO Avi Lonstein. As the former President of ADDTEL Communications, Mr. Lonstein took ADDTEL from a start-up operation to one the country’s most successful nationwide long distance resellers. Under Lonstein’s direction, ADDTEL was recognized as one of the industries most innovative and well-managed companies, and

experienced substantial growth during his tenure. Lonstein is well-known in the resale telecom industry, and was one of the founding members of the industry’s trade association, the Association of Communications Enterprises (ASCENT). Prior to co-founding ADDTEL, Mr. Lonstein was Assistant Controller at Michael Baybak and Company, a corporate public relations firm.

**RG:** AireSpring emphasizes SIP Trunking, but it also offers local T1 service. Will T1 be a viable market as we move into the future?

**AL:** Demand for traditional T1 service remains robust based on the huge installed legacy base of TDM CPE. In the current global economic crisis, businesses are less likely to replace their PBXs and this will prolong the lifecycle of the traditional T1.

At AireSpring, we have made a name for ourselves in SIP, and while SIP is a rapidly growing segment of our business, we still have more demand for T1 based services vs. pure SIP trunking. I’d venture to guess that is true across the industry.

Additionally, because our network is built on an all IP architecture, we can provide many of the benefits associated with SIP trunking to customers who still have traditional T1 or analog line based phone systems. As a result, we can offer services such as free global on-net calling between branches, out of rate center DID’s at no extra charge, international local calling, and low SIP rates to our TDM customers.

**RG:** SIP Trunking appears to be a “no brainer”, so why aren’t more companies doing it?

**AL:** I think there are three main issues that affect customer adoption of SIP:



# Introducing the Global IVR Community

Evolving standards and speech technologies are driving the business case for companies to deploy new speech applications to create additional revenue streams, increase customer satisfaction, and trim costs. Voxeo's IVR Global Online Community on TMCnet is the industry destination for tools, information, and resources for building and deploying enhanced IVR and VoIP applications.

- Hosted and on-premise IVR
- VoIP Platforms
- Free developer tools
- VoiceXML, CCXML and SIP Standards

<http://ivr.tmcnet.com>

The screenshot shows the TMCnet website interface. At the top, there's a navigation bar with categories like 'Global Online Communities', 'VoIP Services', 'Mobile VoIP', 'Small Business VoIP', 'Hosted Communications', and 'Green Technology'. The main content area features a large banner for 'Zip. Nada. Nothing.' with a sub-headline 'That's what it costs to start building great IVR applications using Voxeo.' Below this, there's a section titled 'IVR RESOURCE CENTER' with links to 'Sign up for IVR Community newsletter', 'Sign up for real-time alerts on IVR', 'Why VoiceXML?', 'VoiceXML Development Guide', 'What is CCXML?', 'Hosted or Premise? Why not both?', and 'IVR MEGASITE - Free tutorials, tools, forums, sample code and more!'. To the right, there's a sidebar with a search bar, a 'Log In' button, and a sidebar advertisement that says 'It's not rocket science. Offer a great IVR and VoIP platform. Make it exceptionally easy to try, buy and use. Provide amazing support. Try Voxeo now at www.voxeo.com/free'. The website is displayed in a Microsoft Internet Explorer browser window.

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First, on the customer side, there remains a lot of misconception about VoIP and SIP. Early on, poor call quality and instability issues created a perception that VoIP wasn't ready for prime time. Current SIP Trunking protocols and architecture are quite robust, flexible, and comparable with TDM in its quality, but it will take some time for the perception to change.

Second, unless a business is being forced to move to a new phone system due to aging equipment, the prevailing attitude is "if it ain't broke, don't fix it". Particularly in this economic climate, it is very difficult to get customers to assign capex budgets to new hardware unless they have no choice but to upgrade.

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**Perhaps the communications users of the future won't care as much about voice at all. Younger users seem perfectly happy to Twitter, text, and instant message rather than making an old fashioned phone call.**

Third, much of the early push on VoIP, particularly in the consumer space, was focused on cost savings — think [net2phone](#), Skype etc. Some of this thinking still permeates the perception of SIP/VoIP as just "cheap phone calls". While there are real cost savings available to businesses, we as an industry need to do a better job of evangelizing the feature benefits of VoIP for the average business user, vs. just focusing on price and cost.

**RG:** Do you see any new trends emerging? Any hurdles that might upset the progress of SIP trunking and/or VoIP?

**AL:** There is no question that SIP/VoIP is going to continue to grow exponentially. That is the obvious direction that things are moving. SIP architecture in the core network is simply more efficient and much less expensive to maintain in the long run. But the global recession will throw a bit of cold water on the current growth curve. When times are tough, you tend to make do with what you have. That holds true for carriers as well as customers.

The "perception" question will also need to be dealt with. At some point, you have to start convincing customers that SIP is their future. Sure, the savvy IT guys will be the first to adopt. But then you'll have to deal with all those companies who tried some low quality peer to peer free calling service in the past and think that all VoIP happens in a tin can.

**RG:** Describe your view of the future of the IP communications industry.

**AL:** Carriers will quickly learn that they don't need to wait for their customers to purchase IP enabled equipment before transitioning their networks to IP. Just like digital TV, there are ways to connect older devices to an IP network. You can maintain an all IP network at the core and still have customers with TDM hardware at the edge.

But IP networks will have significant issues of their own to deal with. Bandwidth requirements are growing faster than the infrastructure can keep up. On the networks of the future, voice and data are the same. Voice is just another application, but one which uses very little bandwidth compared to the growth of video streaming and high definition audio visual mega-loads. Carriers are going to be forced to deal with this issue at some point: most likely sooner rather than later. As all communication becomes data, there must be some way to prioritize all that data across networks to assure highest call quality. The [FCC](#) and the Industry are going to need to work this out.

Perhaps the communications users of the future won't care as much about voice at all. Younger users seem perfectly happy to Twitter, text, and instant message rather than making an old fashioned phone call. But somehow, all those [YouTube](#) videos will need to get pushed down to consumer devices and still leave room for critical business applications.

Longer term: conceivably, the human drive to get more for less will prompt the ultimate organic telecommunication network — telepathy — instant communication directly to the cerebral cortex. You can't do any better than that! Who knows? Stranger things have happened. But let's hope that some brilliant product with high profit margins arises instead. **IT**

*Richard Grigonis is Executive Editor of TMC's IP Communications Group.*



Introducing the

# Colocation and Hosting

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## Global Online Community

Visit the **NEW** Colocation Global Online Community for the latest news and information on Colocation, peering and more.

Calling all telecom providers, ISP's Multi-service carriers, peering exchanges, VoIP Providers, content providers, internet exchanges, gaming companies, enterprises, financial service companies and others who are interested in learning more about Colocation.

The community — sponsored by Telx, and powered by TMCnet — allows visitors to connect with industry experts, gain valuable insight into communications management best practices, and more.

**The Colocation Community will showcase daily content updates, including:**

- Informative articles
- Breaking news
- Analyst information
- Case studies
- White papers
- Live event links
- and much more!

<http://colocation.tmcnet.com>

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**TMCnet**

By: Don Witt



## Repeat Customers: It is All About the Experience

### From The Moment They Land

Whether you are selling to resellers or end users, as soon as the customer lands on your site, they are receiving feedback about your company. Is the site professional looking? Are the colors coordinated? Is there too much text? Does the site give them the information they need? Is it easy to find what they are looking for?

### Logical Categories

The successful site will recognize the customer as a prospect and try to win his business every time he visits. You will find information on:

- The Company
- Founders
- Products
  - Demos
  - Store
- Partners
- Support

The order will vary based on what you want to convey to the customer but whatever the message, it is all about the experience. The customer wants to find exactly what he is looking for easily. If they need more information than the basic product information provided, pointers to white papers, Videos, Webinars, or training portals.

### Easy Access to the Company

If the customer cannot find what they are looking for, make it easy to contact someone within the organization.

- Click to call — (Do not require people to enter their phone number for a call back phone call. (Many do not want to provide information until they decide to buy) Direct a call to the person needed: sales, support, accounting etc.
- Instant messaging — Have people available to respond to questions and requests.
- Discussion groups — Dedicate staff to monitor discussion groups and provide corrected or updated information
- Email — provide email addresses for the appropriate people on the website.

As always make it easy to contact the company the old fashioned way, through the phone number

### Store Purchases

The product purchase is the most important part of the customer visit. They have a number of different requirements:

- Cost
- Delivery time
- Product availability
- Shipping Options

Make sure prices are clearly marked. Also let them know if there are any sales or bundles that may reduce the cost.

When the customer is viewing the product, it is advisable to show inventory levels and where the inventory is located. Make the shopping cart available for viewing and easy modification.

### Shipping Options

Shipping options are important. Many customers have their own shipping account numbers and want to use them for the transactions. They may have had a bad experience with one or more of the shipping companies as well. Thus, shipping via all of the major shippers is a plus. It is mandatory to have a tracking number from the shipper chosen.

When they are ready to purchase, provide for all credit card types. Many customers will use one charge card brand over another based on card preference. At check out time, collect their information and give the customer an account number. This will allow the customer to order the next time without keying in all of the information.

It is important to notify the customer at each key point in the order process. The customer should be sent an email:

- With a order confirmation when the order is complete
- When the order actually ships providing estimated delivery date and tracking number
- When the order is delivered

Remember, it is about the experience. The easier it is for the customer the more likely it is that they will purchase the product and come back the next time. **IT**

*Don Witt is President of [cyLogistics](http://www.cylogistics.com) ([www.cylogistics.com](http://www.cylogistics.com)).*

[www.tmcnet.com/3578.1](http://www.tmcnet.com/3578.1)

### **BTS Signs Major Order with Tier One U.S. Telco**

BTS Group AB announced recently that it has received additional project assignments from a tier-one telecommunications service provider. Company officials explained that this is a follow-on order of an agreement that was originally signed in Q1 2008. The projected revenues are to exceed SEK 10 million (approximately \$1.13 million) in Q1 2009, and SEK 20 million (approximately \$2.26 million) for the full year of 2009.

“We are proud that this long-time customer and partner has once again chosen to engage BTS and entrust us with such an important and wide-reaching initiative,” said Henrik Ekelund, president and chief executive officer at BTS Group AB.

BTS’ customized business simulations tools allow companies to develop the skills and capabilities within all levels of their organization, which ultimately drive improved business results. The company works with a commitment to meet its clients’ varied strategic learning objectives through its discovery-based solutions.

[www.bts.com](http://www.bts.com)

[www.tmcnet.com/3579.1](http://www.tmcnet.com/3579.1)

### **IKANO Intros New Referral Agent Program for Google Apps**

IKANO Communications has announced a new Referral Agent Program for Google Apps Partner Edition, which comes with APIs that make it simple for users to provision, customize, and integrate Google Apps into their existing infrastructure. Google’s communications tools such as Gmail email, Google Docs collaboration, Google Sites, Google Calendar shared calendaring, and Google Talk instant messaging are all part of Google Apps Partner Edition.

This enables technical consultants and organizations to promote Google Apps to Internet service providers (ISPs), broadband service companies, wireless service providers (WISPs), fiber to the premise

providers (FTTP), cable companies, municipalities, portal providers, and more. IKANO officials said that agents can receive a portion of the yearly revenue by referring business to the new program. The agents do not have to deal with the hassles associated with a typical reseller programs.

Officials said that this new program is simple and after approval into the Referral Agent Program, new agents can market to their clients. IKANO will be able to track referrals through “unique sales codes” that it provides to agents.

[www.ikano.com](http://www.ikano.com)

[www.google.com](http://www.google.com)

[www.tmcnet.com/3580.1](http://www.tmcnet.com/3580.1)

### **CallFire Introduces VoIP BYOC Program**

CallFire recently announced its anticipated BYOC CallFire Reseller Program, designed to allow carriers and VoIP resellers to profitably resell many of CallFire’s services. The BYOC Reseller Program allows existing VoIP Telecom providers to, in a matter of days, provide Voice Broadcast, Virtual Call Center, Hosted IVR, VoiceXML and other Voice API services.

Reselling CallFire services are made possible by three distinct programs each designed to fit varying organizational structures:

1. BYOC Program — For Carriers and Telcos with plenty of in-house VoIP expertise.
2. White Label Program — For SMBs, marketing companies, VARs and development shops with little to no in-house VoIP expertise.
3. Basic Reseller Program — For SMBs with existing customers, MLMs and Individuals

[www.callfire.com](http://www.callfire.com)

[www.tmcnet.com/3581.1](http://www.tmcnet.com/3581.1)

### **RHUB Communications Signs Distribution Agreement with Siracom**

RHUB Communications, a provider of on-premise Web conferencing, remote support and remote access appliances, has signed a distribution agreement with Siracom. Thanks to the agreement, Siracom will now have the non-exclusive right to sell RHUB’s Web conferencing

and remote access solution to customers located throughout its national and international footprint.

“We are very excited to have Siracom join our channel team as it’s a key step in developing the UK and European market for our solutions. Europe is a huge and largely untapped market for Web conferencing products and services, and we offer solutions that make it easy for VARs to add value to the sale,” said Larry Dorie, chief executive of RHUB, in a statement.

Siracom is a value-added distributor (VAD) of advanced, open network technologies, including wireless and wired networking and IP telephony to the UK and European markets

[www.rhubcom.com](http://www.rhubcom.com)

[www.siracom.com](http://www.siracom.com)

[www.tmcnet.com/3582.1](http://www.tmcnet.com/3582.1)

### **NETXUSA adds TalkSwitch IP-PBX for Small Business**

TalkSwitch has tabbed NETXUSA as its next official distributor of TalkSwitch IP-PBX phone systems. A developer of an owner-friendly phone system for small business and multi-location businesses, TalkSwitch enables resellers to benefit from facilities throughout the United States that provide regional response, economical product delivery and support.

According to Jan Scheeren, president and CEO, TalkSwitch resellers will now work with NETXUSA’s certified engineers and customer service staff available to support dealers in the pre-sale and post-sale phases.

The NETXUSA team delivers products and services for resellers upgrading an existing legacy system or planning a new VoIP PBX deployment. The company specializes in the sales, service and support of VoIP products, is a trusted source of more than 5,000 independent resellers and has provided over 30 years service to the communications industry.

[www.netxusa.com](http://www.netxusa.com)

[www.talkswitch.com](http://www.talkswitch.com)

## Al Higgins, President, Interlink Communication Systems

By: Richard “Zippy” Grigonis

**F**ounded in 1990, Interlink Communication Systems, Inc ([www.interlinkweb.com](http://www.interlinkweb.com)), headquartered in Clearwater, Florida, is an Internetworking-focused specialty distribution company representing select manufacturers to an international network of VARs, Network Service Providers and System Integrators. By “select,” I mean that Interlink only distributes best-of-breed technology in Voice and Data Internetworking equipment to its resellers, so the products it recommends are among the most reliable, robust and cost-effective available for the solution sets Interlink offers.

Interlink’s Vendor Technology spans wire-line, fiber optics, console servers, power management for data centers from MRV, wireless, local and wide area networking, switch/routers from several Vendors. There’s a fast growing VoIP practice including products from [Digium](#), U4EA Technologies, ADTRAN and others. VoIP phones are also available from snom, Aastra, and ADTRAN. Interlink maintains an inventory of new equipment for all vendors and in some cases refurbished products as well. Despite its wide range of expertise, the company is known for its fast, personalized and professional service. For example, their sales staff is available from 8:30 a.m. to 8 p.m. Eastern Time, and they have a Regional office on the West Coast near San Diego.

The Interlink Technical Resource Center is staffed by certified and experienced engineers who are very knowledgeable in many areas of Voice and Data Internetworking. Their System Engineers handle pre-sale support, assist with network design, configuration, and with some vendors Tier 1 Support. The SE’s hold many of the highest Certifications from multiple vendors.

Recently Yours Truly had the pleasure to speak with Interlink’s President, Al Higgins.

**RG:** It’s interesting that you can bring multivendor solutions to the Small and Medium-Sized (SMB) space.

**AH:** Assisting the VAR Channel in this endeavor is something that is in our DNA. This is really where the term Specialty Distributor comes from. Since we started and well through the 1990s this was the approach we used in the WAN/LAN Internetworking space. Our customer base had a high adoption rate in terms of the solution sale. It turned out to be the only real strategy that made sense since many of them had to go up against the Carriers and/or [Cisco](#). Pulling multiple technologies together that were less expensive with equal or better performance was the way to go. Look at the success of [ADTRAN](#) for example who helped drive the Solution sell through the channels and still does.

So a large portion of the customer base is open to the packaged multivendor supported solution today for VoIP, especially in the SMB space which is hot right now. This has allowed Interlink to enter the market through a very natural portal (our existing customers). With a newer set of Vendor partners including [Digium](#), U4EA as well as ADTRAN keeping pace, taking the “Solution” to market makes our VARs more competitive against the same traditional vendors they competed with in those prior years I mentioned earlier.

We spent 2008 taking a multivendor solution to market, based around [Digium](#)’s technology, but including U4EA, ADTRAN, along with a



number of other vendors that we were featuring at ITEXPO 2009 in Miami. This was presented as a working solution. By doing that, we found that the VAR’s ability to adapt to the solution sale was something that not only could happen but will happen. The fact that we signed some new accounts right from the show floor and continue to work with many that visited with us is indicative of the interest. As it happens, that was a very good show for Interlink and our Vendor partners.

**RG:** Everybody seems to be pursuing the SMB market these days.

**AH:** In today’s economy, we found that the multivendor solution is very viable financially, because a VAR can ‘wrap around’ whatever exists currently in the particular SMB office location and can put in the technology that’s necessary to bring them forward without having to forklift and replace everything. This also can mean professional Services Contracts for VARs who get engaged and that can result in recurring revenue. We are starting to facilitate this part of the sale as well.

**RG:** Interlink surprised everyone at ITEXPO East 2009 with an announcement, as I recall.

Like most people, I do not always like surprises but the fact is we have been requested by our VARs to help with the services and support engine they need to participate in more deals and extend their footprint for helping their customer with many of their support needs. To that end we have established a commercial relationship with a service and support company to give us the features and benefits we need to deliver to the VAR.

We have spoken to many of our VARs, and the concept has been met with great enthusiasm. There will be some formal announcements on all this hopefully starting before the end of the quarter which I will be most delighted to share with you in greater detail at that time. Very exciting things ahead indeed!

**RG:** You mentioned that Digium is the basis for the solution and of course Interlink appeared with partners in the big Digium Pavilion at ITEXPO East 2009.

**AH:** The Digium model is very strong. When assembling multiple brands into a multivendor solution, the core open source architecture that's mature enough to be taken to a commercial level lends itself easily to be integrated into a multibrand-type solution. We have added best of breed vendors into the solution set and now have a strategic relationship with U4EA who is developing a major presence globally. We have also been selected as a Value Added Distributor in a special new program with ADTRAN selling their IPT 7100 Series PBX into the SMB space. The VoIP programs will continue to evolve and grow along with our core competence as a supplier.

**RG:** It's a whole new world for the channel.

**AH:** It almost feels that way every year, doesn't it? One of the things we need to keep in mind is the Channel(s) will almost always remain the avenue of choice for vendors large and small. Sometimes it's a timing issue for the vendor. Are they ready to make the move into channels? We feel that part of our job is to provide help answering the questions about being ready. If the vendor is a start-up they usually are not ready. If they reach a point where they have some traction and need some help getting more, very often it may be the time. How the channel(s) operate still often dictates how a vendor goes to market and when. Also important is the support available through the channel. The more of this the VARs can take on, especially in recessionary times like these, their perceived value from their end user goes up. The end users are trying to save money and cut expense in support of their networks.

This ability to provide more service and support may be the most important part of the "new world" as you characterize it in the channel. Look at the growth in the MSP world. There is definitely an inflection point right now.

**RG:** Many distributors and VARs have had to re-invent themselves because of IP communications and convergence.

**AH:** Lots of truth in that. While we still have a very strong legacy business to support, we saw this as a requirement as did our VARs, years ago. The evolution to an IP world born on the Internet and nurtured by Cisco in the Internetworking space, defines much of the technology we all use today. Show me something without an IP address and I'll show you something that's likely to be edible.

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**The Digium model is very strong. When assembling multiple brands into a multivendor solution, the core open source architecture that's mature enough to be taken to a commercial level lends itself easily to be integrated into a multibrand-type solution. We have added best of breed vendors into the solution set...**

Hopefully the economic times we are in will help our VARs, their Commercial End Users, all the Channels and last but not least our Vendors, become very grounded in what we all are trying to accomplish.

Fix the short-term problems by focusing on the pain points. Next and even more important is to focus on where we are going. How can we help our customers get from point A to that Point B. The strategic thinking and planning needs to return and become more dominant in what we do. When we go through the adjustment period and come out on the other side of this recession we all need to be positioned and ready to meet the challenges which will surely come. **IT**

*Richard "Zippy" Grigonis is Executive Editor of TMC's IP Communications Group.*

By: Peter Radizeski



## More Agents or Lift the Ones You Have? Part 1

If you are a carrier or a Master Agent, do you need more agents or do you need to give a lift to the ones you have?

There's a sales management theorem that when you use Pareto's Principle, you should spend your time with the Top 20 percent of your sales force, not the bottom 20 percent. Why? Because the people bringing 80 percent of your sales are the ones you want to keep happy. Also, the more efficient and less bumpy you can make the sales process for them, the better for all the sales team, but especially the top dogs.

If you have a bunch of agents who signed up, what are you doing with them? Is your Channel Manager talking with them? What's he saying? The more you know about their business, the bigger the opportunity for you to actually work together.

Knowing the goals and strategy of your agents can help you target training, leads, case studies, white papers, and tips to them. The more relevant, the better.

Right now, I would be looking to add value to my agent channel. How?

1. Seminar with a tax specialist right now.
2. Seminar with a Financial Planner about IRA and the market.
3. Seminar with a sales trainer for improvement in Consultative Selling.

What? None of this has to do with telecom, you say? No kidding. But it shows that you value them as business people and want them to be successful. Sure. You could give them more webinars on MPLS or whatever the new acronym is for cloud-based WAN connections, but are you really adding value? Do you know the Kawasaki 10-20-30 Rule? Do you survey your channel anonymously to get feedback on any training you give? **IT**

*Peter Radizeski is head of RAD-INFO, Inc., a consulting agency specializing in the telecom industry.*

## ATCOM Cost Effective SMB IP PBX Solution

Looking for the cooperation with System Integrators for the LOW COST IP PBX developing and distribution



IP-04



IP-01

### Features:

- Built-in configurable Asterisk IP PBX
- Fully open source software.
- Interchangeable FXS/FXO module

### Hardware:

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- NAND flash 256 M
- SDRAM 64M

### IP PBX series models:

Model No.	Ethernet	TEL Ports	Others
IP-01	WAN	1xFXO/FXS	--
IP-01P	WAN	1xFXS	PoE
IP-02	WAN/LAN	2xFXO/FXS	--
IP-04	WAN	4xFXO/FXS	MMC
IP-08	WAN/LAN	8xFXO/FXS	MMC,USB
IP-BRI	WAN	4xBRI	MMC,EC module(option)

IP-02



IP-04



IP-08



IP-BRI



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<http://www.atcom.cn>

## Join The Packet 8 VoIP Services Community!

Whether you are a start up or an established company, a one-person business or an organization of 100 employees, a VoIP-hosted phone solution with a lower TCO, reduced complexity and more advanced communication features is the obvious and smart choice.

But, one size does NOT fit all! As such, TMCnet has joined together with one of the industry's leading IP communications service providers, 8x8, Inc., originator of Packet8 Internet Phone Service, to educate the business and residential communities on the advantages and efficiencies of VoIP-hosted phone service.



## VoIP Services For SMB & Residential



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[voipservices.tmcnet.com](http://voipservices.tmcnet.com)

By: Rich Tehrani & Max Schroeder



## Five Reasons to Implement/Upgrade Your Business Continuity Plan Now

We are reminded daily of the global economic crisis and

budgets are being slashed so who but a fool or a genius would go to the company CFO or CEO and say, "It is critical that we update our Disaster Avoidance/Business Continuity (DABC) plan now."

At ITEXPO East 2009 in Miami back in February, one of the TMC University courses was titled, "Business Continuity, Virtualization and FoIP". Both the course content and contributions by the students provided some solid advice on how to sell business continuity even in this business climate. Maybe these points will help you make your case.

1. Newer virtualization technologies can dramatically reduce the cost of implementing or updating a plan. Products like VMWare and Hyper-V not only make implementing a DABC plan easy, they also allow for consolidation of equipment. The company of one student reduced their servers from 20 units to 4 by going virtual.
2. Business failure – KPMG Risk Advisory Services and Continuity Insights Magazine conducted a 2005 survey that reported 43% of businesses damaged in a disaster close for

good. Many businesses are in worse financial shape now than in 2005 so that number would go higher. This threat may scare management into implementing a plan.

3. Regulatory compliance – Sarbanes-Oxley and HIPAA require data integrity so a DABC plan is critical. Is your company in compliance?
4. Going Green. By incorporating virtualization into your DABC plan, you can reduce power consumption.
5. Saving money. A DABC plan generally builds in mobility and permits employees to work from home or remote offices. Implementing this strategy company-wide immediately can save money now and in the future.

The key to selling in this environment is to sell products that meet a critical need plus save money and the above do both. **IT**

*Max Schroeder is the Senior Vice President of FaxCore, Inc. (www.faxcore.com) and Managing Director of the DPCF.*

*Rich Tehrani is the President and Group Editor-in-Chief at TMC and is Conference Chairman of Internet Telephony Conference & EXPO.*

## Ask the Colocation Expert

By: Rose Klimovich



## Colocation and Interconnection Services

You might have heard the terms Colocation and Interconnection Services and not been quite sure what they are. Let me spend a few minutes explaining this.

Colocation is a facilities based service for businesses that want the flexibility and freedom of having their own data center environment without the added costs of building and managing their own facility. Some advantages to using a colocation facility are:

1. **Price:** you pay only for the space and services you need.
2. **Control:** You decide on your architecture and own your own hardware and software.
3. **Reliability:** You take advantage of the colocation providers' early warning systems, redundancies, and diversification of communications providers.
4. **Network Choice:** Generally colocation facilities have multiple service providers giving you leverage when it comes to negotiating prices and planning for back up.

**5. Flexibility:** Another benefit of colocation is flexibility since you will be able to grow and upgrade your space and technology as your company grows.

Interconnection within a colocation facility allows one company to connect their network to another by running fiber or other media to a central point in a facility called a meet me room. This can be very beneficial. Since you are connecting inside the facility, there is no local loop charge, so costs are lower. Also, since there are often a lot of providers to choose from, you get good choice in providers. This can be very important if you have applications that have low latency or other specific requirements.

Companies often provide both interconnection and colocation services in the same facility. You will find colocation companies that have a single location to those with multiple locations throughout the U.S. and throughout the world. Telx and CRG West are examples of companies that provide colocation and interconnection services. **IT**

*Rose Klimovich is Vice President Product Development at Telx (www.telx.com).*

By: David Yedwab



## Too Much for IT to Think About?

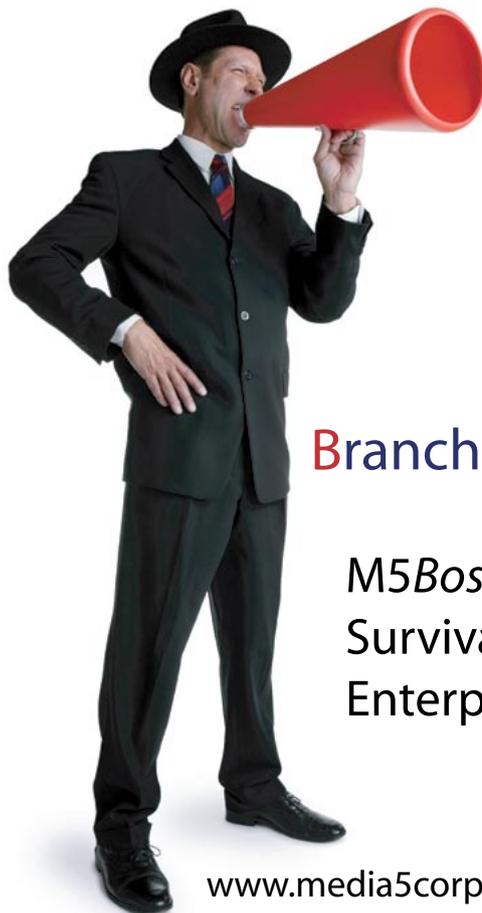
With the economy in a severe recession, IT is under even greater pressure than normal to reduce costs and deliver value to the business. So, here's another view of a few ways to prioritize how to invest that small amount of discretionary dollars that can still be squeezed — while contributing to better customer loyalty, happier internal users, improved profitability and building beachheads for UCC expansions when the economy improves. And the need for rigorous business cases for future deployments may be reduced as senior management clearly sees the benefits of the early deployments — better top and bottom line performance.

How about more responsive Customer support? Customer support (Contact Centers) enabled with enhanced presence and mobile UC to select individuals across the business — so that the best person can respond near-realtime to the troubled customer's request? This accomplishes a couple of things — first, makes users less grumpy and whiny about support and gives you some early insight into how to enable some of the Unified Communications applications you've been hearing about over the past year, or so, but didn't know how/where to start. Supporting customers better is a great way for IT to contribute quickly to the businesses bottom line and, implementing UC solutions to support customers allows you to both gain experience for future deployments while cost-effectively deploying solutions. Remember, every saved/happy customer is one less new customer that needs to be sold. Customer support solutions can

easily be extended to internal user-support (help desk) operations — the technologies are the same and the parallel implementation can be very cost-effective.

How about IT proactively supporting the use of teleworking/telecommuting — for green/energy conservation, work-life enhancement and office space-saving considerations? Virtually ubiquitous broadband (especially given the new administration's support) and relatively easy and economical "home-office" outfitting with UC and collaboration technologies from many major vendors and service providers — again giving you a leg-up on remote worker support, mobility and collaboration technologies. And supporting more flexible working conditions can be important in keeping important talent. And being a leader in green, while saving costs, at the same time, can enhance IT's reputation within the business. And, with the tax benefits on depreciation and investment in the stimulus bill, the UCC solutions may even be very affordable to implement and allow your business to take advantage of the stimulus in a forward looking way. I'm sure there are other creative ways IT can assist in this time of business and financial challenges. Please feel free to share your ideas and accomplishments so we can all work together to speed the recovery. Contact me with your ideas at [david.yedwab@mktstrategy-analytics.com](mailto:david.yedwab@mktstrategy-analytics.com) and I'll include them in future articles. Thank you. **IT**

*David Yedwab is a Founding Partner in Market Strategy and Analytics Partners LLC. Contact him at 908-879-2835 or [david.yedwab@mktstrategy-analytics.com](mailto:david.yedwab@mktstrategy-analytics.com).*



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By: Erik Linask



[www.tmcnet.com/3538.1](http://www.tmcnet.com/3538.1)

## Can Mobile Broadband Save the Economy?

The economy, and President Obama's stimulus plan, have been discussed at length, at large, as well as right here on TMCnet. That said, there is little impacting the global environment — both business and personal lives — the way the economy is, which is why, amid the plethora of news emanating from Barcelona this week, the economy remained a focal point.

In addition to putting on the 2009 Mobile World Congress event, which attracted more than 47,000 attendees from 189 countries, one of the week's highlights was the [GSMA Leadership Summit](#), which brought together 400 decision makers from across the globe, who collectively agreed that mobile broadband, in particular, has the ability — perhaps even the obligation — to act as an independent stimulant for the global economy. In an effort to propagate that role globally, participants in the Summit encouraged the increased rollout of mobile broadband services in an effort to facilitate economic growth.

Though governments can play a role in, the mobile communications space is predominantly led by the private sector and, as such, the Summit collectively sought the encourage governments to adopt policies that would drive investment in that space, which includes ensuring appropriate regulation is enacted to create stability, which, in turn, would allow for increased spending on both infrastructure and services.

Wireless spectrum is also an issue, particularly with regards to global communications. One of the conclusions the Summit reached was that it would benefit the global community if governments were to allocate like spectrum for mobile broadband services, allowing for cross-border compatibility. In addition to helping manufacturers achieve economies of scale, this would lower prices for end-users, but has the potential to increase network usage internationally — driving service provider revenue.

"For mobile broadband to be a mass market service worldwide and powerful engine of economic growth, the mobile industry needs both a stable regulatory climate and access to the right spectrum on the right terms," said Rob Conway, CEO and Member of the Board of the GSMA. "Wherever possible, governments need to allocate the same chunks of spectrum as other countries in their region, enabling equipment manufacturers to gain economies of scale by producing mobile broadband handsets, computers and other devices that will work in many different markets."

In addition, simple releasing new spectrum for mobile broadband can provide an economic boost. For instance, according to Professor Leonard Waverman and consultancy LECG, \$211 billion could be added to China's GDP by the release of new spectrum for mobile broadband services in 2009.

"The rolling out and operation of 3G networks in China will create 300,000 job opportunities directly and indirectly," said

Wang Jianzhou, Chairman and CEO of China Mobile.

A similar act in India could increase that country's GDP by \$95 billion. This growth is a result of a combination of new jobs, new development to support the mobile industry, and a resulting increase in consumer and business spend.

Similarly, the digital transition — which has now been pushed back to June 12 in the U.S. — should provide an opportunity to drive the mobile broadband space.

The GSMA says that, "Of the 400MHz of low-frequency spectrum freed up by the switch-off of analog television, 100MHz should be used to enable the roll out of cost-effective mobile broadband networks."

Choosing the right spectrum is crucial to driving cost efficiencies and supporting economic growth — a mobile broadband network in the 700MHz spectrum, for instance, can be 70% less expensive than the same network in the 2100MHz spectrum that underpins many of today's 3G networks.

But above that, with today's mobile broadband technology — and technologies still in testing and development — mobile broadband should be significantly less expensive to deploy in rural and otherwise underserved areas than running fiber.

Specifically, The World Bank estimates that connecting an individual to a mobile network can cost 10 percent of the cost of providing a new fixed-line connection.

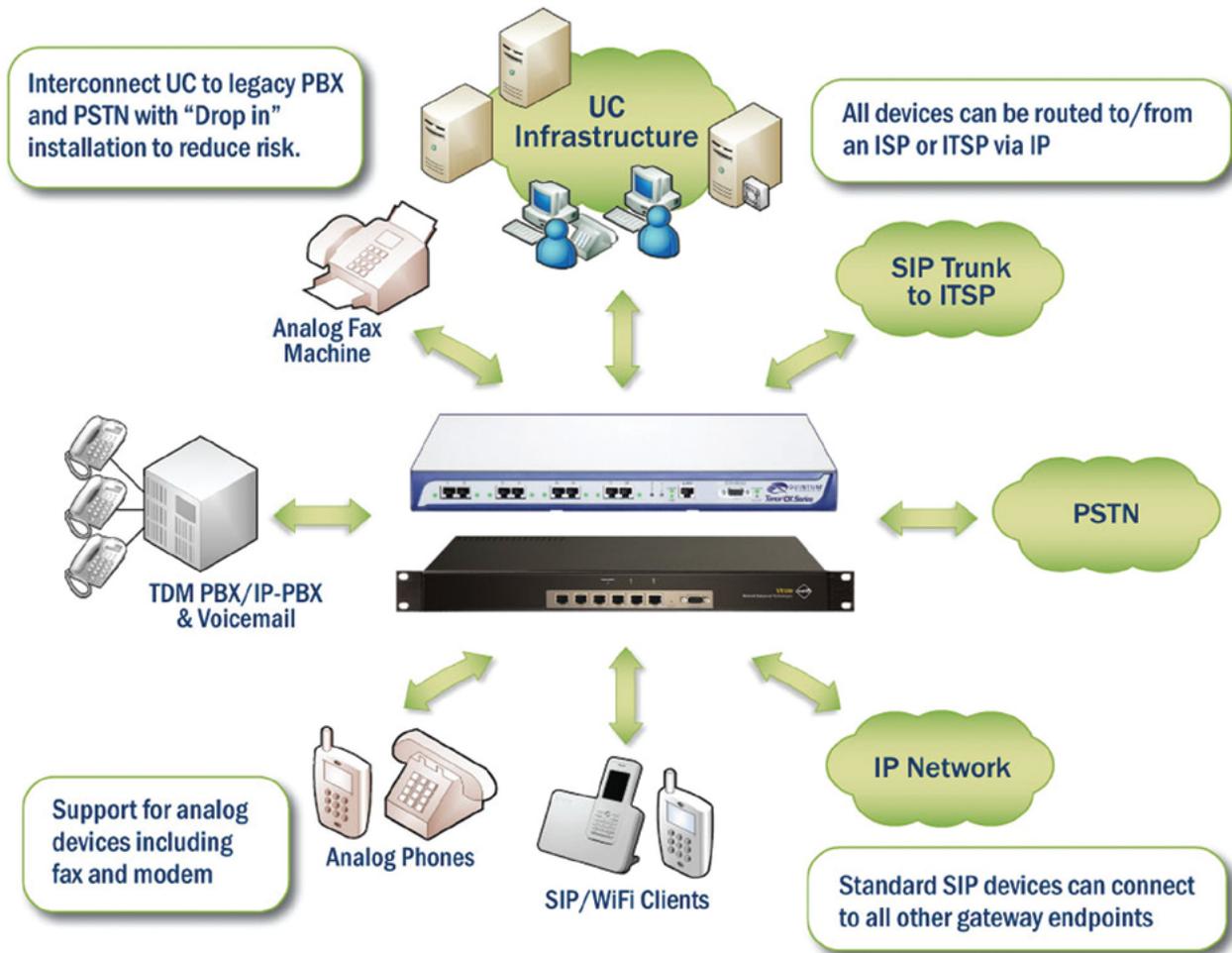
Vendors and service providers alike recognize the value in being able to cost effectively deliver services to not only areas without existing broadband, but also to supplement wireline service in other areas, as usage increases. That is borne out by the many WiMAX- and LTE related announcements made this week.

In the past year, the U.S. has proven without doubt the impact a substantial investment in mobile broadband can have. The more than 15,000 applications available through Apple's App Store are testament to the development that results from new mobile broadband capabilities — and applications for the latest [BlackBerry](#) and Android-based devices are on their way.

What this means is that a confluence of network operators, device manufacturers, and developers can help stimulate the economy. But, in this case, it's not a question of the chicken or the egg — the networks have to come first.

Indeed, recent developments are evidence enough that, as Ray Kinsella learned in *Field of Dreams*, "If you build it, he will come." **IT**

# Introducing the Unified Communications Global Online Community



The Unified Communications Global Online Community, sponsored by NET/Quintum Technologies, is designed to serve as the premier resource for information on Unified Communications technology and solutions. As the Unified Communications space continues to evolve, readers can stay abreast of trends and issues driving this exciting technology Bookmark this page to keep informed.

NET and Quintum deliver VoIP solutions designed to bring the reliability and voice clarity of public telephone networks to Internet telephony. Their intelligent VoIP access solutions integrate easily into existing PBX and IP infrastructures, making them the ideal choice for service providers and enterprises alike.

## Community Features:

- Unified Communications
- Enterprise VoIP
- Microsoft OCS
- SIP-based IP Telephony migration
- Tenor VoIP MultiPath Switches and Gateways
- VoIP Network Environments

<http://unified-communications.tmcnet.com>



[www.tmcnet.com/3539.1](http://www.tmcnet.com/3539.1)

## VoIP, IP-PBXs to Benefit as SIP Forum Approves Sonus Networks' Switch

Bolstering its offerings in an increasingly popular, cost-saving technology, Sonus Networks announced that a key business trunking solution achieved compliance with the latest standard from an IP communications industry association.

Officials at Sonus say the SIP Forum has designed their so-called "Network Border Switch" as "SIPconnect 1.0" compliant. The Sonus Network Border Switch resides in a media gateway platform, enabling centralized routing, media transcoding and security. Officials at Sonus say the switch allows service providers to more cost-effectively deploy all IP-based connections to enterprise IP-PBXs.

According to Shailin Sehgal, vice president marketing and product management at Sonus, "The recognition of compliance with SIPconnect further demonstrates that Sonus is delivering an enhanced, standards-based solution for access border security. Sonus can offer service providers a path to transform their networks to all IP, from the core to the edge."

[www.sonusnet.com](http://www.sonusnet.com)

[www.sipforum.org](http://www.sipforum.org)

[www.tmcnet.com/3540.1](http://www.tmcnet.com/3540.1)

## SoTel Systems Enters Into a Partnership with 3CX

SoTel Systems, LLC has entered into a partnership with 3CX with an aim to provide a low cost, reliable IP PBX bundle to U.S. resellers. According to 3CX officials, the company's phone system for Windows is a software-based IP PBX based on the SIP standard, and supports most popular SIP phones, VoIP gateways, SIP trunking providers and traditional PSTN phone lines. SoTel will combine the software with gateways, endpoint hardware and soft clients, and SoTel's own SIP trunking service to provide an all-in-one solution for resellers to offer.

The offering will give organizations access to advanced telephony features at a reduced cost, allowing for increased mobility and productivity, while allowing SoTel to further expand their product

portfolio with cutting edge technologies.

[www.3cx.com](http://www.3cx.com)

[www.sotelsystems.com](http://www.sotelsystems.com)

[www.tmcnet.com/3541.1](http://www.tmcnet.com/3541.1)

## Panasonic Releases New Software for its Hybrid IP-PB

Panasonic Consumer Electronics Company recently announced a new version of the operating software for its KX-TDA50, a hybrid IP-PBX designed to enable businesses to take



full advantage of cost savings from service providers. Besides its ability to be networked with a variety of Panasonic phone systems including the TDA, TDE and NCP product lines, the platform supports centralized voicemail, which cuts operational costs by not requiring a separate voicemail server for each system.

A unified programming and maintenance tool is also available for use with the TDA50. This provides easy multiple system setups and programming via the network for up to 100 systems. In addition, the system can support up to 12 incoming lines, which can be a mix of analog (up to 12), IP (up to 4), and/or Session Initiation Protocol (SIP) (up to 8).

[www.panasonic.com](http://www.panasonic.com)

[www.tmcnet.com/3542.1](http://www.tmcnet.com/3542.1)

## Quickoffice Unveils Microsoft Office Viewer for Android

Dallas-based office productivity software provider Quickoffice has reportedly unveiled the industry's first Microsoft Office viewer for the Android platform. By using Quickoffice for Android, T-Mobile G1 phone users are able to access, view and manage their Word and Excel files. Last month, Quickoffice released an Office application for the iPhone and iPod Touch.



The new viewer allows users to access and view .doc and .xls files sent via a Gmail attachment or stored on a memory card. Users are able to zoom and scroll down the documents without losing the original document formatting. Another important feature offered by the platform is the ability to hyperlink telephone numbers, Web sites and e-mail addresses directly from Word files. With this capability, users will be able to place a call and visit a Web address or e-mail with the touch of a button.

[www.quickoffice.com](http://www.quickoffice.com)

[www.android.com](http://www.android.com)

[www.tmcnet.com/3546.1](http://www.tmcnet.com/3546.1)

## Polycom Delivers Visual Communication Infrastructure



Polycom, a global leader in telepresence, video and voice communications solutions, has yet again introduced a new conference platform. The Polycom RMX 2000 V4.0 conference platform is optimized for multi-site visual communication that delivers capabilities including 1080p and broadcast-quality 720p high-definition (HD) quality, flexibility for pure HD or mixed-resolution video environments, and capacity and scalability. The RMX 2000 v4.0 addresses existing and emerging applications including immersive, room and personal high-definition (HD) telepresence, broadcast-scale desktop video collaboration, specialized industry applications and traditional video conferencing.

The Polycom RMX 2000 V4.0 and new MPM+ Cards are available worldwide through certified Polycom channel partners. Base list price for the solution is \$46,500.

[www.polycom.com](http://www.polycom.com)

[www.tmcnet.com/3547.1](http://www.tmcnet.com/3547.1)

### **Redback to Migrate from Legacy IPv4 to New IPv6 Networks**



Redback Networks, an [Ericsson](#) company and a provider of next-generation broadband services such as VoIP, IPTV, on-demand video, and online gaming, has successfully completed a series of interoperability tests conducted at the European Advanced Networking Test Center (EANTC), an internationally recognized test center specialized in offering objective, vendor neutral network test facilities for manufacturers, service providers and enterprise customers.

As IPv6 is an important feature for the expansion of address space for device interconnectivity, Redback took EANTC's support to test IPv4/IPv6 interconnectivity for developing its SmartEdge Multi-Service Edge Router. Consequently, Redback SE400 successfully passed all the interoperability tests, demonstrating to service providers an immediate and smooth transition path to IPv6 services.

[www.redback.com](http://www.redback.com)

[www.tmcnet.com/3548.1](http://www.tmcnet.com/3548.1)

### **Dash Carrier Services Partners with VIXXI Solutions**

Dash Carrier Services, a provider of wholesale carrier products and services for IP Telephony rollouts, announced that it has formed a strategic relationship with VIXXI Solutions, Inc., as a value added vendor of E911 services for its dash911-services suite. More than 180 Voice Service Providers across North America utilize dash911, the Company's core E911 emergency services offering.

"This partnership with VIXXI is essential to our continued growth, and allows us to penetrate new markets," said Justin Nelson, CEO, Dash. "VIXXI's proven solutions and conviction to evolving with NextGen 911 solidifies our ability to serve current and future customers."

The implications of the Dash and VIXXI relationship equate to greater competition in the 911 marketplace, as the strengths of each company are leveraged to offer feature-rich solutions at aggressive prices.

[www.vixxisolutions.com](http://www.vixxisolutions.com)

[www.dashcs.com](http://www.dashcs.com)

[www.tmcnet.com/3549.1](http://www.tmcnet.com/3549.1)

### **IBBS and Power & Tel Partner to Provide Triple Play Service Throughout Latin America**

Integrated BroadBand Services (IBBS) recently announced a partnership with Power & Tel. Power & Tel will serve as a reseller of IBBS' Broadband Explorer (BBX) diagnostics and provisioning software in Central America, South America, Mexico and the Caribbean.

Through its BBX Diagnostic and Provisioning software and portfolio of network management services, IBBS enables its more than 200 customers to quickly and cost-effectively address and resolve customer issues, reduce truck rolls, call handle time and mean-time-to-repair, and drive higher levels of organizational performance. IBBS CEO David Keil noted, "As a company built by cable veterans to serve the cable industry, IBBS looks forward to teaming with Power & Tel to expand the reach of our solutions tailored to the specific needs of cable providers in Latin American markets."

[www.ptsupply.com](http://www.ptsupply.com)

<http://www.ibbs.com>

[www.tmcnet.com/3555.1](http://www.tmcnet.com/3555.1)

### **Cable&Wireless to Provide Global Managed IP Solution for Zegna**

Cable&Wireless announced that it has received a three year multi-million Euro contract for the provision of communication infrastructure for Zegna, a luxury men's clothing company. Cable&Wireless will be managing Zegna's international communications infrastructure from its Dublin and Munich data centers.

Cable&Wireless has the ability to maintain next-generation communications for international retail chains. Zegna need not invest in local IT systems and technical personnel and its growing network of international stores will benefit from the fully-managed solution. Cable&Wireless will be migrating Zegna's retail branches to its global Internet Protocol Virtual Private Network (IP VPN)

giving the design house a centralized view of all its business-critical retail applications like real-time stock and account information.

[www.cw.com](http://www.cw.com)

[www.zegna.com](http://www.zegna.com)

[www.tmcnet.com/3550.1](http://www.tmcnet.com/3550.1)

### **IPgallery, Tvinci Develop Help Users Socialize Internet TV Services**

IPgallery and Tvinci have announced a converged TV, Web 2.0 and Telco solution through which users can socialize by using TV services via the Internet.

Tvinci provides operators turnkey solutions for engaging Internet TV and enables mobile, fixed-line and pay-TV operators to create VOD & Live video environments that maximize their ability to generate revenues from PC viewers. IPgallery is a telecom software house delivering converged NGN communications & entertainment solutions.

This jointly developed solution is designed to allow the delivery of unique TV services enriched with Web 2.0 and communication features. Mobile and fixed-line operators willing to offer quad-play services can also deploy this solution.

[www.ipgallery.com](http://www.ipgallery.com)

[www.tvinci.com](http://www.tvinci.com)

[www.tmcnet.com/3551.1](http://www.tmcnet.com/3551.1)

### **NeuStar Certifies Sonus Networks**

Sonus Networks has announced that its solutions for wireless carriers have been certified as part of PathFinder, the GSMA-managed service operated by NeuStar.

Based on Carrier ENUM technology, the PathFinder initiative is dedicated to the delivery of IP-based services to fixed and mobile networks. NeuStar said that PathFinder facilitates an interoperable solution, enabling the routing of global IP service interconnect traffic. The service acts as a central directory, allowing operators to share IP and fixed-line addresses to allow routing of packet voice, instant messaging (IM), multimedia services, email and video, according to officials. Officials said that the delivery of IP-based services is made easier by linking of an IP address to a phone number for mobile devices, fixed-line phones and IP devices.

[www.sonusnet.com](http://www.sonusnet.com)

[www.neustar.biz](http://www.neustar.biz)

Each NEWS snippet is more in-depth on our web site.  
Point your browser to the URL above the story you wish to read.

[www.tmcnet.com/3560.1](http://www.tmcnet.com/3560.1)

## Microsoft Reveals New Windows Phones

Microsoft Corp. recently launched its new Windows phones based on Windows Mobile 6.5 and featuring a new user interface and a richer browsing experience.

The new phone offers a new service called My Phone, which allows users to synchronize text messages, photos, video, contacts and more to the Web; as well

as Windows Marketplace for Mobile, that offers direct-to-phone mobile applications with the ability to access from both the phone and the Web.



According to the company, the new Windows Mobile 6.5 home screen offers a dashboard-like experience to items such as new e-mails, texts, missed calls and calendar appointments. Moreover, it includes an improved touch-screen interface and an updated version of the latest Internet Explorer Mobile browser.

[www.microsoft.com](http://www.microsoft.com)

[www.tmcnet.com/3557.1](http://www.tmcnet.com/3557.1)

## Aircom Announces Testing Services for Mobile Device Manufacturers

Aircom International, an independent mobile network planning and optimization consultancy, is offering mobile device lab testing services to ensure interoperability of mobile applications and compliance with industry standards. Aircom offers testing service for technologies including GSM, GPRS, Universal Mobile Telecommunications Service and CDMA.

Major applications tested include short messaging service (SMS), multimedia message service (MMS), instant messaging (IM), Wireless Application Protocol (WAP) Java,

e-mail, streaming, Bluetooth, Push-to-Talk (PTT), Security, MediaFlo, WiFi and third-party applications. With the continuing evolution of advanced mobile platforms such as Microsoft Windows Mobile, Android and Symbian, mobile device manufacturers and service providers need to ensure that their offerings deliver the best technology to the market.

[www.aircominternational.com](http://www.aircominternational.com)

[www.tmcnet.com/3561.1](http://www.tmcnet.com/3561.1)

## Samsung Intros Divx-Certified Full Touch Mobile Phones

Samsung recently unveiled its Divx certified full touch mobile product lines. Samsung's Ultra Touch, OMNIA HD, and BEAT DJ are now Divx certified and are designed to offer effortless playback of DivX videos on customer's mobile phones on the go and in the living room.

"Our customers see mobile devices as an important place to enjoy high-quality video, and adding DivX support ensures that our handsets provide a cutting-edge media experience," said Younghee Lee, Vice President of Samsung's Digital Media & Communications business.

"Samsung continues to recognize the value that DivX provides for its customers, and we are pleased to be a key feature in Samsung's new line of mobile phones," said Kevin Hell, Chief Executive Officer at DivX, Inc. "The Samsung Ultra Touch, OMNIA HD and BEAT DJ are superior multimedia phones, and now users will be able to watch their favorite videos absolutely anywhere, enjoying the high-quality that DivX video is known for."

[www.samsung.com](http://www.samsung.com)



[www.tmcnet.com/3558.1](http://www.tmcnet.com/3558.1)

## Nokia Siemens to Launch Next-Generation Full Packet Microwave Solution

Nokia Siemens Networks unveiled their latest solution, called FlexiPacket Microwave recently. The new solution is said to have the potential to change the dynamics of the radio world and offer innovative new ways for mobile operators to provide new multimedia data services to the customers.

"FlexiPacket Microwave is more than Ethernet over microwave. It addresses the whole chain in mobile networking: Radio, hub-site and network management, with carrier-grade quality of service," said Vesa Tykkylainen, head Nokia Siemens Networks' Microwave Radio business.

The system combines Carrier Ethernet Transport with Microwave Radio using a data centric approach while eliminating the need for a base station shelter. Nokia Siemens says that this new approach will allow operators to offer attractive pricing models for data intensive applications and to provide the quality of service necessary to drive mass market, reliable services.

[www.nokiasiemensnetworks.com](http://www.nokiasiemensnetworks.com)

[www.tmcnet.com/3562.1](http://www.tmcnet.com/3562.1)

## Maximizer Ups BlackBerry Version

Maximizer Software recently introduced Maximizer CRM 10.5 Freedom for BlackBerry smartphones from Research In Motion. The product is being billed as a tool to "position small to medium-sized businesses one step closer to a smartphone-only workforce." The latest mobile CRM offering is pitched as something to "free" executives and managers from laptops, and "reduce downtime in the field for sales and service professionals."

The product allows real-time wireless access to business intelligence data through mobile dashboards, letting users monitor sales performance and services activities from their mobile devices. Additionally, the new release provides IT administrators with the ability to wirelessly deploy mobile CRM to business users.

[www.maximizer.com](http://www.maximizer.com)



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<http://hdvoice.tmcnet.com>

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[www.tmcnet.com/3563.1](http://www.tmcnet.com/3563.1)

### **Ezwim Unveils TEM Partner Portal**

In a bid to enhance its partner services, Amsterdam-based Telecom Management Services provider Ezwim has unveiled the Total Telecom Management (TTM) Partner Portal. The new Partner Portal was designed to allow partners to set up and manage their direct customers through a Partner Interface, which makes the whole process quicker and smarter.

The Partner Portal allows Ezwim partners to offer their clients a distinctive Telecom Management service and acts as an administration and management portal that enables partners to add new customers themselves, create customized reports and support customers. The portal also offers a rate plan analysis service that imports and normalizes all the data available on rate plan cost. The service allows partners to ensure that they pay only as much on their services, as they need to.

Hein Remmen, Product Manager of Ezwim commented, "We believe the Partner Portal will dramatically simplify and improve the way our Partners interact with their customers. With this new service we are taking Ezwim's Telecom Management Services to more people, in more places, than ever before."

[www.ezwim.com](http://www.ezwim.com)

[www.tmcnet.com/3564.1](http://www.tmcnet.com/3564.1)

### **BT Intros Engage Meeting Manager 2.0**

BT has reportedly released a powerful Web-based scheduling and automation tool called Engage Meeting Manager 2.0 which is an advanced version of its BT Conferencing tool. BT Conferencing Services is designed to facilitate immediate access to colleagues, clients and suppliers via telephone, personal computer or specialized video conferencing equipment without the expense of high travel costs.

Company officials at BT say that the latest version is filled in with new features to make reservations faster and easier through an intuitive conference wizard, meeting templates,

custom directories, B2B scheduling, iCal integration and user interface improvements.

[www.bt.com](http://www.bt.com)

[www.tmcnet.com/3565.1](http://www.tmcnet.com/3565.1)

### **TEM Solution Provider Teleopti Makes CCC Forecasts Available as a Download**

Teleopti, which provides strategic workforce management in contact centers and telecom expense management solutions, announced that it will be releasing CCC Forecasts and making it available for a free download. The solution includes all the functionality of the Teleopti CCC version — a contact center solution that provides forecasts on terms, optimization, and compatibility and also connects to other solutions.

Teleopti CCC Forecasts includes features such as multi-site, multi-skill, and multi-channel forecasting of contact volumes and staffing requirements along with variable timescale of intraday, daily, weekly, monthly, yearly predictions and easy-to-grasp graphical representations. It also offers historical data validation, seasonal variation analysis, trend analysis, campaign period considerations with modern, user friendly interface which resembles Microsoft Office 2007.

[www.teleopti.com](http://www.teleopti.com)

[www.tmcnet.com/3566.1](http://www.tmcnet.com/3566.1)

### **Beacon to Deploy VoIP, TEM, CRM systems for Las Vegas Casino**

An operator of casinos and related hotel and entertainment facilities reportedly has selected Beacon Enterprise Solutions Group to install and maintain an extensive VoIP system for their newly consolidated Operations Center in Las Vegas.

Widener said that by bringing together telecommunications services, infrastructure and application development, Beacon is positioned to help its clients achieve the economic and operational benefits of converging of technologies. The project has already been initiated and will be implemented in three phases over the next few months. Under Phase one, which has already been

completed, the company has installed and integrated the VoIP system along with a Telecom Expense Management, or "TEM" system to assist with cost containment and management.

In Phase two, the company would be connecting all of the customer's Las Vegas offices utilizing VoIP in order to fully integrate and support multiple locations throughout the Las Vegas area. Phase three is designated to connect all of the customer's casinos and offices across the United States, integrate the VoIP system with the customer's CRM application and place them within a single enterprise structure.

[www.askbeacon.com](http://www.askbeacon.com)

[www.tmcnet.com/3567.1](http://www.tmcnet.com/3567.1)

### **The City of Beaumont Manages Telecom Expenses with Veramark**

Telecom Expense Management (TEM) solutions provider Veramark Technologies is helping the City of Beaumont, Texas to process telecom invoices more efficiently, allocate costs, and gain more control over the use of telecom resources. VeraSMART Communications Management Suite will provide the City of Beaumont's Communications Division with a number of benefits. The Division will now be able to receive telecom carrier invoices electronically, automatically validate the invoices, track and manage disputes, and allocate approved charges to appropriate City departments and managers.

By leveraging VeraSMART's call accounting capabilities, Beaumont's Communications Division expects to capture call data records for every call into or out of the City's telecom network. Thanks to a powerful reporting engine, users of the system will be able to generate reports that show call destination and origin, time and duration, estimated cost, and more. Under the agreement, the City of Beaumont will license VeraSMART components for call accounting, charge allocation, invoice management, asset and invoice management, and service management. The company will also provide data migration, systems integration, and training services.

[www.veramark.com](http://www.veramark.com)



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# Ming Guang Yong, CEO, Voiceroute

By: Richard “Zippy” Grigonis



**V**oiceroute’s original claim to fame is that its Druid Unified Communications Server not only added a GUI to Digium’s open source Asterisk IP PBX, but actually added functionality, such as IM-based call control, a rich end user communications portal, Shared Line Appearances (SLA), unified communications (UC) capabilities, and Microsoft Active Directory.

As it happens, there are two Druid versions: Druid OSE (Open Source Edition, [www.voiceroute.org](http://www.voiceroute.org)) and Druid UCS (Unified Communications Server, [www.voiceroute.net](http://www.voiceroute.net)). Whereas many competitors’ “commercial division” merely offers the same open source product, but now with support, [Voiceroute](#) goes further by certifying, testing and making Druid UCS a focused product with a clear roadmap and exclusive enterprise functionality. The open source version is built on IMAP and XMPP. It brings together voicemail, VoIP, mobile telephony, faxes and instant messaging, along with plug-and-play handset provisioning, AJAX-based administration of your IP telephony system, and a rich web user portal accessible from a mobile phone with mobile bridging. It also offers a unified mailbox for faxes and voicemail and IM-based call control and messaging.

Yours Truly recently spoke with Ming Guang Yong, CEO of Voiceroute.

**RG:** Tell me about Druid’s origins.

**MGY:** We’re more than just a software-based phone system. I would prefer for us to be known as a unified communications [UC] software provider. We are the first commercial UC distribution on [Asterisk](#), and we now have LDAP support. The company was founded by myself and Vikram Rangnekar in 2006. We were one of the first commercial GUIs on the web based on Digium’s Asterisk. Initially everything was Asterisk plus what was then a PHP-

based GUI running on top. Over time we received customer feedback and it became very clear to us that unified communications was the way to go. People want more than just a GUI on top of Asterisk, they want a fully-functional communications system that’s integrated with applications. I mean ‘applications’ in a most general sense: It could be a client application on the phone, or a desktop application, or something running on the web, or a CRM application such as the commercial open source [SugarCRM](#) or even [Salesforce.com](#). A fully-blown UC system is what makes people productive and gives companies real ROI for any IT system.

Over time we’ve evolved to become a full distribution with plug-and-play IP telephony where we support six brands of phone: [Aastra](#), Cisco, Polycom, snom, Grandstream, even Mitel. When I say ‘support’ I mean more than just typing in a MAC address. For Polycom and Aastra in particular, you can just plug in the phone and they’ll automatically be detected, assigned MAC and IP addresses, and an extension will be provisioned. Some of our competitors misuse the term auto-provisioning, claiming that they auto-provision phones, but in their case you still have to type in a MAC address. In the case of our system, you don’t have to touch anything, as long as your switch is VLAN tagged so you just plug in the phone and it will appear on the system and automatically be assigned its own VLAN and configuration

files. So our first distinction is plug-and-play telephony.

Our second distinguishing feature is mobility. Extensions can be mapped to any IP phone you wish. With a few clicks, an extension can be moved from one phone to another. We are totally mobile, even allowing you to use your Blackberry. You can actually change your call routing, check your voicemail, do remote dialing, all from your Blackberry. We’re also launching an [iPhone](#) application too. So in terms of the key value propositions we provide, mobility is one, and then we have desktop and web functionality. For example, we have an application where you can see the presence status of other people and you can drag and drop people from your buddy list to make a call. It integrates with multiparty applications such as [SugarCRM](#), [Salesforce](#) and even [Google Apps](#).

**RG:** What else is ‘under the hood’?

**MGY:** We have a complete LDAP server and integration with Active Directory, so you can use a single login. We are also the first company to offer real-time master-to-master replication of Asterisk-based solutions. We offer true Asterisk server redundancy, so you can have two servers — a master and a clone. If one server shuts off for some reason, you’ll immediately switch over to the other, not as a ‘cold spare’ as offered by our competitors. So we have quite a system. **IT**

*Richard Grigonis is Executive Editor of TMC’s IP Communications Group.*

[www.tmcnet.com/3570.1](http://www.tmcnet.com/3570.1)

**Open Source, Virtualization, SaaS Could Save U.S. Government \$23.6 Billion**

After days and weeks of micro-analysis of the United States' newly passed \$787 billion economic stimulus plan — including about \$7.2 billion for nationwide broadband — a new study says that the federal government could save billions by moving to more open source software, virtualization and cloud computing.

The 14-slide study — from MeriTalk, an online group that studies public policy and IT, as well as Red Hat and DLT Solutions Inc. — says that after years of boosted funding, federal IT managers are facing a new challenge: the budget crunch.

“With a grave economic outlook and a new administration in office, Federal agencies will be forced to do more with less,” the study says. “Across 30 key Federal agencies, the government allocated \$60 billion for IT infrastructure in FY07, FY08, and FY09. Instead of worrying over a budget stop, why not make the most of the money we are already investing?”

According to the study, open source software, virtualization and cloud computing will help do just that.

[www.meritalk.com](http://www.meritalk.com)

[www.tmcnet.com/3571.1](http://www.tmcnet.com/3571.1)

**New FreeSWITCH Version Now Available**

FreeSWITCH, an open source software communications platform used to create voice- and chat-driven products, has had more than 127 items updated, most of which are bug fixes, minor adjustments, and improvements. Just last month, the company released FreeSWITCH version 1.0.2 available after teaming with Polycom to incorporate new VoIP features into the FreeSWITCH program, including providing users with access to Polycom's wideband (WB) and ultra-wideband (UWB) Siren family of codecs.

Some of the new improvements of FreeSWITCH 1.0.3 include

switching out libresample for the Speex DSP resampler, which offers enhanced performance benefits and features such as volume gain. Also, Speex is licensed under the revised BSD license, which provides more flexibility for code customizations. For more details, visit:

[www.freeswitch.org](http://www.freeswitch.org)

[www.tmcnet.com/3573.1](http://www.tmcnet.com/3573.1)

**Sesca Unveils Open Source Qt-based Mobile Phone Stack**

Sesca Group, a Finland-based provider of information and communications technology and automation solutions and services for the telecommunication, energy production and process industries, recently unveiled a smartphone application stack called ‘Sesca Ample.’

Based on Nokia's open-source Qt application development framework, the new mobile phone stack can be ported to any platform which supports Qt. It is platform independent and runs on both Linux and Symbian platforms. Also, it is binary compatible with ARM Linux kernel 2.6.24 and primarily directed to mobile device manufacturers and operators.

The reference implementation uses Openmoko's NeoFreerunner and features advanced touch screen and customizable graphical user interface (GUI). The Ample also offers versatile applications such as a multimedia player and communications tools.

[www.sesca.com](http://www.sesca.com)

[www.qtsoftware.com](http://www.qtsoftware.com)

[www.openmoko.com](http://www.openmoko.com)

[www.tmcnet.com/3574.1](http://www.tmcnet.com/3574.1)

**Open-Plug Chooses Enea's Software Solution for its Linux Mobile Platform**

France-based mobile platform developer Open-Plug said that it has selected solution from Enea for its ELIPS platform targeting Linux devices and mass market mobile phones. Open-Plug creates and commercializes ELIPS, an open application development environment designed for mass-market mobile phones. With ELIPS, software

companies, handset makers and mobile operators can create and deploy mobile applications, rich user interfaces and complete software solutions.

At the end of 2008, Sweden based Enea had signed an agreement with Open-Plug to deliver the H.324 protocol stack from its Netbricks line of products to their ELIPS Suite product and ELIPS Telephony Stack. ELIPS Suite product is a ready-to-use mobile platform for mass market phones, while ELIPS Telephony Stack targets Linux-based devices such as mobile Internet devices (MIDs).

[www.open-plug.com](http://www.open-plug.com)

[www.tmcnet.com/3575.1](http://www.tmcnet.com/3575.1)

**Sangoma Integrates Call Progress Engine with VICIdial**

Sangoma Technologies Corporation recently announced it has completed the integration of its patent-pending Call Progress Analysis engine with VICIdial, a complete open source inbound and outbound call center suite.

NetBorder Call Progress Analysis Engine ensures fast and accurate automated call classification, even when reaching wireless phones or systems with color-ring back tones. With NetBorder, outbound call centers can increase the efficiency of their agents and ensure their customers receive superior service. The agent interface of VICIdial is completely Web-based and depends solely on a Web browser to provide real-time information and functionality. The management interface is also Web-based and lets agents view several real-time and summary reports as well as hundreds of detailed call handling and agent options and settings.

VICIdial is deploying the NetBorder Call Analyzer software with Sangoma cards as an option coupled with its Asterisk-based solution. NetBorder CPA integrates with VICIdial, and will work with any gateway or IP network.

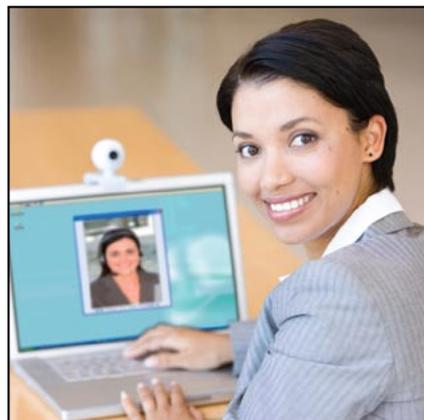
[www.sangoma.com](http://www.sangoma.com)

[www.vicidial.com](http://www.vicidial.com)

# Conferencing and Collaboration Strategies

By Richard “Zippy” Grigonis

In an era when the world’s economy is in freefall and companies are struggling for ways to save money, eliminating unnecessary business travel is a very attractive proposition. Indeed, being able to frequently yet instantly share files, discuss and collaborate with customers, colleagues and business suppliers/partners online in real-time without leaving one’s desk has become commonplace. It can be done with any of the “hit parade” of conferencing and collaboration services and products now on the market. Customizable meeting environments now allow for everything from a spontaneous meeting between two people working on a document, to large-scale training and scheduled events with hundreds or even thousands of participants, supported by a mélange of live and recorded video, chat, slide and application sharing, VoIP or PSTN audio, and interactive audience feedback tools.



One of the most famous and accessible of these is Microsoft’s Office Live Meeting, the hosted version of which is a web conferencing service operated by Microsoft that enables organizers to schedule meetings using Outlook (even when offline), send separate meeting invitations to presenters and attendees, and automatically include audio conference information in every meeting invitation.

Live Meeting is based on free, downloadable client PC software that works in conjunction with a central server at Microsoft. There’s also a Java-based console version that runs in a Mac and Solaris environment. Of course, in addition to the hosted model for Microsoft Office Live Meeting 2007, there’s also a CPE (Customer Premise Equipment) solution, namely the Office Communications Server 2007 (OCS 2007) enterprise conferencing server product. Fortunately, Live Meeting Web Access (MWA) provides a nearly identical user experience to that of the Windows-based Live Meeting client. (Live Meeting Web Access is the Java applet that will run on non-Windows operating systems such as Linux, Macs, etc.)

Using both the web and Live Meeting, you’re able to control PSTN lines (muting all parties except your own, eject parties, etc.). User accounts are grouped together in Conference

Centers (a unique URL) which starts with: [www.livemeeting.com/cc/](http://www.livemeeting.com/cc/). . . Users pay nothing to join a Live Meeting session. Charging for Live Meeting is done on an account basis. The last time Yours Truly checked, “Professional Users” can schedule up to 1,250 participant connections per meeting and can store unlimited shared meeting recordings for 360 days. For five users, it’s \$15.42 per user per month with no one-time fees. On the other hand, “Standard Users” are able to schedule and manage meetings with up to 15 participant connections per meeting. For five users it’s \$4.58 per user per month with no one-time fees. Although Microsoft directly hosts Microsoft Office Live Meeting 2007, hosting partners also offer Microsoft Office Live Meeting 2007 as a fee-based service. Whether attendees use the Live Meeting service or OCS 2007 to operate their web conference, they use the same software client.

You can schedule a meeting online or you can call a Live Meeting Sales Specialist for more information at 866-463-3866.

Interestingly, “panoramic video” is possible with the addition of the Microsoft RoundTable, a 360 degree USB video camera that runs under Windows CE and is optimized to work with Microsoft Office Live Meeting 2007. Roundtable, working in conjunction with its

microphones, can determine the active speaker’s location and then tell Microsoft Office Live Meeting which camera angle to focus on. The Microsoft Office Live Meeting client can also automatically switch the larger video window to the actively speaking participant.

## The Webified World of WebEx

WebEx Communications was founded in 1995 by Subrah Iyar and Min Zhu, whose previous claim to fame was as co-founder (in 1991) of an early multi-point document collaboration software company called Future Labs. Cisco Systems acquired WebEx in 2007, for \$3.2 billion.

Today, WebEx is a Cisco company that provides an almost dizzying array of on-demand collaboration, online meeting, web conferencing and video conferencing applications. Its products include “Meeting Center”, “Training Center”, “Event Center”, “Support Center”, “Sales Center” “MeetMeNow”, “PCNow”, “WebEx AIM Pro Business Edition”, “WebEx WebOffice”, “WebEx Connect”, and so forth.

All WebEx apps are built on the Media-Tone platform and instead of using the Internet as a communications pipe, the apps are supported by the WebEx Media-



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Tone Network, a global network intended for use with on-demand programs based on a hierarchical topology atop an over-provisioned, global redundant fiber, IP infrastructure. The MediaTone Network connects data centers around the world (tier-1 level data centers with two-factor entry physically house the WAN and Intranet switching fabric). At the collaboration level, the MediaTone switches, database, and meeting core-switching reside within the data centers. The application level includes the web-facing servers, which house the customer-branded portals and API interfaces.

### Citrix GoToMeeting

The GoToMyPC service by Citrix Systems is a favorite of road warriors who want to magically convert their laptop into a “reproduction” of their home or office PC. Another popular app is GoToMeeting, a web-hosted service created in 2004 and marketed by another division of Citrix Systems called Citrix Online. GoToMeeting is advanced remote meeting and desktop sharing software that runs over the Internet. Conferences can be protected with high-security encryption (SSL/128-bit AES) and optional passwords. By using software installed on the host computer, the web-hosted subscription service can penetrate normally impervious network firewalls.

There are three versions of GoToMeeting: Personal, Webinar and Corporate. The Personal edition enables you to host unlimited meetings for an unlimited duration with up to 15 attendees per meeting – all for one flat fee. To reach a larger audience and bring to bear marketing tools such as polls, surveys and reports, GoToWebinar offers unlimited Webinars with up to 1,000 attendees, plus the collaborative online meeting features of GoToMeeting. Finally, GoToMeeting Corporate is for organizations that demand multiple organizer accounts with the ability to deliver unlimited Webinars to up to 1,000 attendees. GoToMeeting has Macintosh support for meeting hosts and VoIP integration. Software is installed by logging on to the GoToMeeting website. The system allows for the recording and playback of meetings and you can save meetings to a user desktop for later review.

### Alteva's Collaborator

Instead of running their VoIP service over whatever network you happen to use, such as broadband DSL and cable networks designed for simple data transfer rather than live, real-time voice, **Alteva** has built a network specifically for high-quality business VoIP phone service.

William Bumbernick, CEO of Alteva, says, “Alteva has focused first on the quality of its solutions, so as to be able to provide an enterprise-class solution to Fortune 500 companies, to companies that are retail operations with hundreds or thousands of stores, or to companies that have five employees. The only way to be able to do that is if the phone works — the first and foremost feature is that the phone must work and it must be of great quality. So we focused on that first. We spent the first four years of our business ensuring that those components were solid. Now, since we built those pieces from the ground up, we’ve been really able to concentrate on the innovation side of the business — what’s coming next. That’s where this leads into conferencing and collaboration.”

“Here at Alteva, we believe that the future of VoIP is the integration of VoIP into everything that a business does,” says Bumbernick. “By that I mean VoIP should integrate into their CRM systems and into their workflow systems, and that’s where collaboration will evolve from, not just Live Meeting type collaboration, where we can see each other on a screen. Rather, I’m talking about collaboration that’s baked into applications that the company uses every day. That’s the evolution. The novelty today is the ability for an app to open up and act like Live Meeting, WebEx or our Alteva Collaborator solution, and be able to use that app as a collaboration medium. But the reality is that the medium will eventually be ‘baked’ into the apps themselves. As VoIP evolves and becomes baked into the apps, then with that VoIP, as Alteva supports video right inside of our audio stream, we’ll become the video, conferencing and collaboration components. In this hosted model, everything is becoming server-based.”

“We’re seeing companies building entire business models on open source collaborations,” says Bumbernick. “There’s a company called SlideSix [www.slidesix.com] which makes an amazing Powerpoint/video/audio-embedded solution that you can do

right online. They’re a huge free presentation sharing community where you can upload your presentations and share them with your friends, publicly or privately. You can add video and/or audio by recording it directly within the site. It supports various presentation formats such as PPTX, PPT/PPS, PDF, ODP/SXI, and MOV [QuickTime]. As you go through the slides of a presentation on line, I could be presenting my Powerpoint slide with video right into it from my Macbook, along with the audio of what I’m saying, and SlideSix puts it all on a single screen. It now becomes a presentable solution that people can just go to, log in and experience for free. That’s just one example of how audio and video can be baked into an application. That’s where collaboration is going to go.”

“We’ve spent a lot of time, effort and money in video, because that’s the essence of collaboration,” says Bumbernick. “It’s not only talking to you in a conference call, but showing you who I am and then also being able to share the screens of whatever application is pertinent. But in our particular switch, we have a feature called ‘video add-on’. It’s a way for us to grab video from external sources and bring it into the switch itself. So what we’re able to do is build little web apps, or Adobe AIR apps, or web mashups, that tie in to these video cams that exist on PCs today and just bring it into the conversation. It takes away this concept of needing a video phone to do video. It will actually integrate with whatever phone or handset you have on your desktop and it goes into the call. It becomes an icon on the desktop that you can click on to ‘Add Video’. So if you and I are on a call, I click on my Add Video icon and you click on yours, and now we see each other over our PCs simultaneously, with the audio that’s going over our call right now. So it’s pretty interesting where the evolution of all this is taking us.” **IT**

*Richard Grigonis is Executive Editor of TMC's IP Communications Group.*

The following companies were mentioned in this article:

**Alteva**  
www.altevatel.com

**Citrix GoToMeeting**  
www.gotomeeting.com

**Microsoft Live Meeting**  
www.livemeeting.com

**WebEx Communications**  
www.webex.com

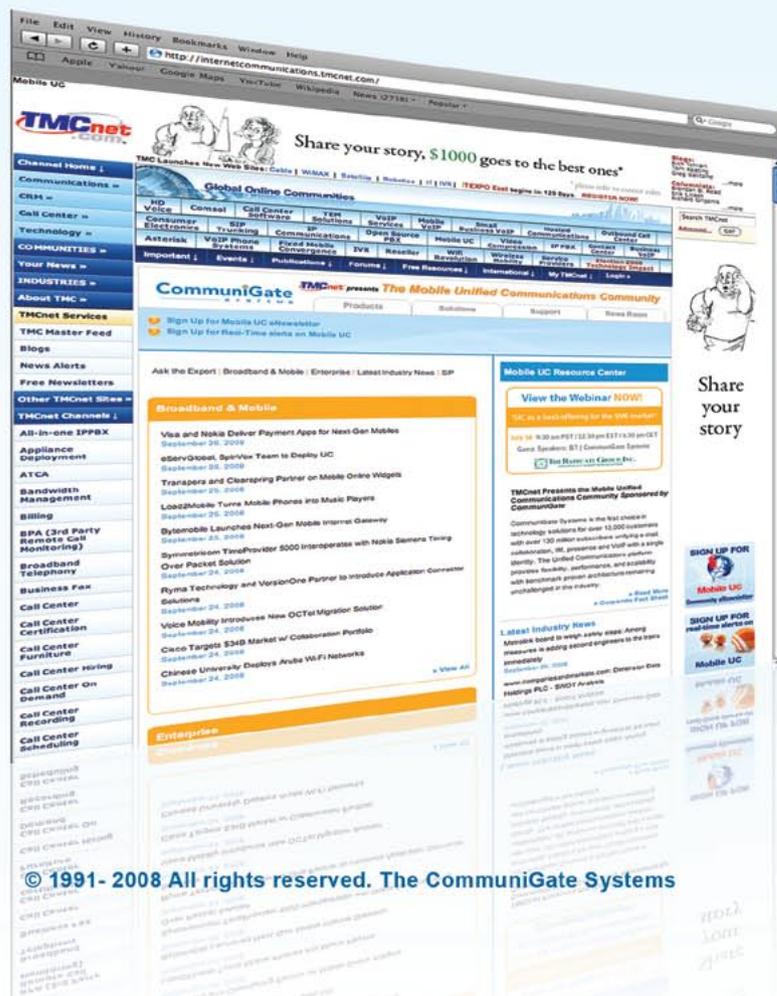


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<http://internetcommunications.tmcnet.com>

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# Warren Consolidated Schools Gaining True Visibility into Network Usage

By Greg Galitzine

The complex digital communications network at Warren Consolidated Schools, serving the communities of Warren, Sterling Heights, and Troy, northeast of Detroit, Michigan, links some 27 separate facilities and connects them all to the outside world. The district's "server farm" is centrally located in the Administration building, and is under the direction of Dan Milbeck, the organization's director of information technology. In this role, Milbeck oversees the network for 15,600 student and more than 800 teachers at 15 elementary schools, five middle schools, three high schools and two specialty schools, as well as a community high school and other support buildings.



When network performance issues arose, Milbeck had no quick or easy means to pinpoint the source of the problems. The IT department did not have a clear ability to report and understand how, where, and when applications were being used on the network. Additionally, the IT department was unable to manage the associated bandwidth accordingly or to catch and analyze data in real time. As use and applications grew more prominent, powerful visibility into IP traffic became critical for the IT department to quickly pinpoint and resolve performance problems.

## Time to Streamline

"My responsibility is pretty much anything related to technology: computers, printers, and peripherals," says Milbeck. "I'm also responsible for the entire voice-over-internet phone system, as well as an analog video distribution system and all the supporting TVs and routers. If we were having network-related issues, some of them might be caused by the kids themselves, and others were related to mistakes made out in the field. Usually somebody would just call and ask, 'Why isn't the network running?' Or, 'Why is it so slow?' We would start seeing sites that appeared to be down, but in reality they were just overwhelmed with traffic and we couldn't readily pinpoint the source of these problems."

Because we didn't have a device that could easily identify a problem, there were a few times I resorted to pulling cables to see if the problem went away. It was that type of archaic troubleshooting that I needed to eliminate.

"As a prank, the kids would take a network cable and plug both ends into separate ports which created havoc in the net-

work," Milbeck explains. "Isolating this was extremely difficult because in the elementary schools, every room has six network drops, plus there are three computer labs in each middle school, and seven or eight computer labs in each high school — we have a total of 4,200 computers in the district. Other problems that we deal with almost daily is when a student or teacher bring in unauthorized personal equipment which is infected with virus, malware, etc., and plugging it into my network."

## Seeking A Viable Solution

Though aware that applications management solutions were available, they were too costly to gain the approval of Warren's governing body, its Cabinet. Milbeck decided to attend a vendor show where he was introduced to a variety of solutions, including 5View Applications from InfoVista. 5View Applications is a passive applications network appliance that provides the ability to report and understand how, where, and when applications are using the network in order to manage the associated bandwidth accordingly, as well as to capture and analyze data in real time. Passive appliances provide non-intrusive monitoring of the network, enabling IT network management to continuously monitor, report, and understand application performance and network usage without additional drain on the network.

"InfoVista's 5View was the product needed to make a business case for the school," Milbeck says. "Not a lot of the solutions in the market have the easy monitoring and drill-down capabilities that 5View has at a price that I could afford. The ability to catch and analyze data was also very important, and 5View is capable of generating rules-based

email alarms. Also, I can monitor applications including response times from individual application servers. That's huge, especially for my database server. We do a lot of development on our database server and have to keep an eye on it to make sure we don't overtax it. 5View happened to be a perfect fit for Warren Consolidated—it fit exactly what we needed and, better yet, the price was right."

Working with InfoVista, Warren Consolidated installed a demonstration version of 5View Applications and provided Milbeck with training on how to monitor and use the system.

"The more I used it, the more I liked it," says Milbeck. "We evaluated it for two to three months; fortunately, the end of the evaluation period coincided with the end of my fiscal year. I was able to present this solution to upper management. I focused on its cost-effectiveness, the types of problems we were experiencing, and the difficulty we were having in nailing down the source of those problems. A network of our size needs a solution like this in place," Milbeck notes.

### A Clear View

With the budget request approved, Warren installed InfoVista's 5View Applications over the summer, giving Milbeck some additional time to better familiarize himself with the system's capabilities before the start of the next school year.

"Some of the problems we were experiencing stuck out like a sore thumb once we had 5View installed," he states. "For example, it immediately showed me that I had a bad network card in one of my post office servers. I was getting constant TCP retries on the server. With 5View, I could identify the problem and fix it. Previously, I could only take educated guesses at what was causing it.

"5View also identified slow response time from my Internet filter," Milbeck continues. "The response time coming from the Internet was increased proportionally to the amount of traffic that filter was handling. I was able to capture and graph the data which gave me the documentation needed to request installation of a second firewall with load-balancing between the two to alleviate the throughput."

Warren's VoIP traffic is carried on the same cable as the data, heavy bottlenecks in data traffic can affect telephone service. "Voice traffic has top priority, so it transfers before any type of data does," says Milbeck. "5View lets me proactively monitor the bandwidth and take corrective actions. This proactive side is one of the better gifts of 5View. We have a projector in our help desk area that displays a 5View screen which shows a high level status of the network. This enables my staff to identify a problem at a glance."

5View Applications has even made it much simpler for Milbeck to manage the classroom shenanigans. "Now, when a kid plugs a

network cord into another network port, I know exactly which school and which part of the building the problem originates. I can disable that port until I can get somebody out to the school to pull that cable. What used to take about 30 minutes to an hour to track down, I can diagnose in a matter of seconds."

### The Real Report Card

Being an extensive network with so many devices and users — including inquisitive students — means that Warren Consolidated confronts an almost endless number of variables in keeping its communications system up and running smoothly. Before installing InfoVista's 5View Applications solution, applications management had been largely hit-or-miss, and identifying a problem could be a problem itself. What 5View has provided Warren is true visibility into the applications running on the network, be they VoIP, Internet traffic, or the demands of internal operations, like printing. With 5View, Milbeck can literally "see" applications usage levels and, when traffic begins to build anywhere on the network, he can proactively move to head off any service deterioration, from the "slowness" reported by users, to VoIP drop-out and packet loss, to system overloads due to looping local routers and/or the addition of unauthorized devices or applications.

For Milbeck, 5View simply helps him do his job more efficiently and effectively. "It sends me a report every morning about the throughput from each area, so I can see which school is monopolizing the most bandwidth. For the most part, all the data has been legitimate, so it helps us identify who needs exactly what amount of bandwidth at a certain time in the day."

With network usage increasing universally as the number of digital communication applications continues to grow, the visibility 5View Applications provides to IT managers can be an accurate and even indispensable tool for predicting and meeting future needs. ■■

## Industry: Education

### Customer Benefits

**Real-Time Troubleshooting:** The ability to quickly pinpoint network and application performance problems has helped the school system prevent service deterioration and reduce troubleshooting from 30 minutes to mere seconds.

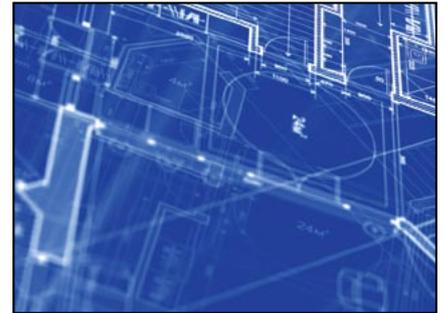
**Effective Capacity Planning:** Visibility into network usage — by school, application type and time of day — enables the IT organization to predict and meet the school system's future bandwidth needs.

**Affordability:** 5View Applications meets all of the school system's network and application performance monitoring requirements at a price it can afford.

# IMS Today

By Richard “Zippy” Grigonis

The great irony of IMS (IP-based Multimedia Subsystem) is that nearly every network operator in the world considers it the “heir apparent” as the blueprint for a common service architecture serving both wireline and wireless networks, and yet deployments continue to creep along. Furthermore, Yours Truly has often marveled at how SOA (Service Oriented Architecture) and Web Services can either be part of IMS or can do a complete end-run around them. Certainly the wildly popular cable triple play service bundles manage to get along without IMS, but optimism for the ultimate triumph of IMS remains.



One company that’s betting on IMS is [Tekelec](#), which dwells among the masters of core multimedia session control and network intelligence. Their signaling solutions enable the interworking of different network applications, technologies and protocols, providing a smooth transition to next-gen networks. For example, their new EAGLE XG, an IMS-friendly signaling and session control platform, enables operators to deploy hybrid, next-gen networks (NGNs) while leveraging existing technology investments. The EAGLE XG can host various applications that can be deployed individually or together, such as a SIP Signaling Router (SSR) or a Home Location Register (HLR) that allows operators to flexibly allocate numbers across multiple HLRs in the network, enabling each database to be fully utilized. The platform supports a converged database that enables multiple core network applications, reducing capex and opex by consolidating subscriber and network routing data and eliminating the need to manage, maintain and update databases for each application.

The EAGLE XG SSR overcomes the lack of core signaling and session control in softswitch-based NGNs by serving as a SIP proxy, bridging SIP- and SS7-based architectures to gain access to all routing information. The SSR introduces SIP routing directly into the core network, providing scalability and flexibility for hybrid and IP-centric networks. The system creates a centralized session framework that increases service and network flexibility and lays a foundation for cost-effective growth to support the increasing demand for VoIP and multimedia services.

With a software upgrade, the SSR can also serve as a Call Session Control Function (CSCF) to provide SIP signaling and session control for subscribers accessing IMS services. The app, built to 3GPP standards, enables operators to deliver next-gen multimedia services to any device.

Tekelec’s Assistant Vice President of Business Development, John Lenns, says, “We were part of the recent sixth NGN/IMS Forum Plugfest. We were pleased to see that this Plugfest displayed a greater maturity in terms of the types of call flow scenarios, centering on more realistic real-world use cases. In previous Plugfests people were doing things such as testing the interoperable connection between, say, the CSCF and HSS [Home Subscriber Server] or the CSCF and a User Element. Now we’re starting to get into some more mature flows, multiple networks, multiple equipment providers furnishing components within the network, multiple user elements, and validating that the authentication and authorization and the charging protocols worked for roaming scenarios, both in and out of networks. So you get the view that we’re getting into modes where we’re validating not only the things that operate, but more advanced scenarios. That was really pleasing to see, and it was pleasing to observe how smooth everything went. There are always new discoveries. The beauty of the Plugfest is that everyone interprets the standards in certain ways and you get together in a non-threatening environment and you do you testing and we all learn about what’s the common technical interpretation and you go from there. The Plugfest was a good experience for us, and we’re still committed to continue participating in the Plugfests.”

“We still consistently believe that IMS will continue to take time to roll out,” says Lenns. “IMS continues to take time to roll out. The rollout will be not so much a total fork-lift of the network, but rather a gradual appearance in an evolutionary manner. We’ve already seen the evolution of the legacy TDM signaling network to an IP-based signaling network via SIGTRAN. We see a continued evolution from that into SIP [Session Initiation Protocol], and we’re obviously adjusting that space with our SIP signaling router product. And then, there’s a gradual evolution from that to the CSCF functionality. So we do see a gradual rollout of



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IMS and I think that will be the result of the ‘pull’ of the desire to rollout new applications and capabilities to subscribers, and to be able to accurately track usage and charge for those. As the new capabilities roll out to the subscribers, that will further evolve the network, so as I say, it won’t be a forklift upgrade, but a gradual evolution.”

In furtherance of IMS testing, Tata Consultancy Services (TCS) has developed lab-tested tools and frameworks on IMS, such as their IMS Development Tester – an IMS Test Suite development based on 3GPP IMS conformance specifications, application development experience. For the record, they also offer the iConverse IMS Application – a next-gen app that helps users understand the topic being discussed on a live call in detail through live feed on an Instant Messenger. Finally there’s the IMS-based IPTV Application – which has features such as SMS on IPTV and call receiving capability on IPTV.

Based on deep product engineering engagements with equipment vendors (including test and measurement vendors) TCS has acquired early access to and expertise in upcoming technologies. As such, TCS is able to efficiently service large carriers and EVs to overcome their challenges in the wake of technology churn.

### Can IMS “Bear It”?

IMS is supposed to “de-silo” applications, making them easier to develop and deploy and thus advancing the world of Operations Support Systems (OSS). To find out, Yours Truly talked with a major player in the OSS world, VPIsystems, whose OnePlan integrated network planning system enables service providers, systems integrators and manufacturers to design, plan and implement their transition to a next-gen IP-based network.

Robert Smithline, Senior Director of Next Generation Strategy at VPIsystems, says, “IMS is an important part of next-generation networks, particularly on the wireless side. But it is not the *de facto* next-gen solution for wireless or wireline carriers. It has been very slow to develop. They’ve been working on it since 1998. When things are slow to develop and deploy, it’s a bigger challenge to get adoption. A good example is IPv6, which took so long to develop that IPv4 enthusiasts came out with so many extensions and workarounds that it solves many of its own problems. Likewise, since IMS has been slow out of the gate, there are some other technologies out there that may supplant it as the next-gen solution for delivering services, such as Naked SIP or Generic Access Networks [GANs]. But there are lot of IMS deployments out there and there will continue to be because it solves problems for a lot of carriers.”

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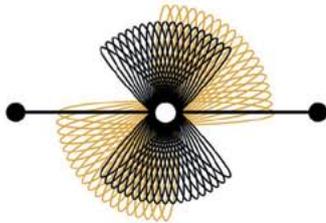
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“IMS is unique in that it shares a bearer network but it controls the way bearer traffic is run,” says Smithline. “This works very well into the way we handle network planning. We consider networks as a single entity, and every part of the network affects every other part. So, you can’t look at your IMS design in a ‘vacuum’ and just plan your IMS network independently, because changes in your IMS network will impact every other part of the network. Do you want to place your application servers directly in the middle of the core? Or do you want to distribute them on the edge? As you move around the control devices within an IMS infrastructure, it greatly affects where the bearer traffic is going, and it will impact every layer of the network design. And of course complicating matters is that the standards groups are trying to insert functionality for everyone in the specifications. IMS could have been deployed a whole lot earlier.”

“As it is, when planning an IMS network, there are many things to consider,” says Smithline. “First, of course, there is the underlying bearer network, and how your plan for IMS will impact the underlying bearer network. And then there’s the equipment modeling for all of the different pieces involved in the IMS infrastructure. All of those ‘pieces of kit’ have to be dimensioned properly to deliver the services that you want. These are typically revenue-bearing services. So they tend to have a higher priority in the planning groups than some other things might. And each of these has different thresholds and different build levels that the groups want to attain, as well as a certain tolerance for redundancy. So when planning for your IMS

network, it’s very important to consider the kit involved in it, and to have a tool that takes into account your business rules when it tells you the right time to build. It’s not just the economy. Wireless has been on the ropes for a long time as far as the amount of capex providers are willing to spend. Senior management expects just-in-time bills. The planners are also expected to have a network that is resilient and stands up to new growth. Given the way wireless networks and even wireline networks have been growing over the past five years – and given the way we expect them to continue growing over the next five years – there’s a lot of risk involved in the network design if you don’t have a proper planning tool.”

“Every estimate you see out there sees network bandwidth growing by at least 50 percent a year, and probably more for the wireless carrier, because they’re making a big leap from 3G to 4G. So you need a lot of good marketing data to really drive your network designs and add input to your planning tool.” **IT**

*Richard Grigonis is Executive Editor of TMC’s IP Communications Group.*

**The following companies were mentioned in this article:**

**Tata Consultancy Services**  
www.tcs.com

**VPIsystems**  
www.vpisystems.com

**Tekelec**  
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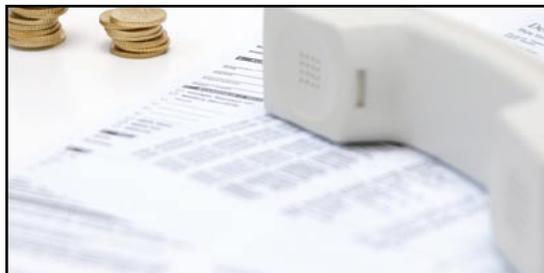
<http://ipcommunications.tmcnet.com>



# Telecom Expense Management — Old Term, New Technology

By Richard “Zippy” Grigonis

Today’s floundering world economy has been a boon for the Telecom Expense Management (TEM) industry. The term TEM is hated by just about everybody in the industry, since TEM’s capabilities have in recent years expanded far beyond just checking phone bills for the 15 percent or so of errors that are inevitably found there. Everyone has their own, upgraded version of the term, such as Total Telecom Cost Management (TTCM).



There are basically five key areas within TEM:

**1. Invoice Management** — This is the original, traditional function of TEM — bill analysis, auditing and chargeback accounting/correction — plus the ability to commonly handle multiple carrier invoice types, as well as international invoices/inventory.

**2. Ordering/Procurement Management** — For example, a road warrior orders a mobile device that he or she fancies. The order routes to the employee’s manager, then up to a senior vice president. With some systems the VP can approve or reject the order, or even reject the original device and substitute another one in its place, without disrupting the workflow process. This activity is tracked and is part of the reporting and then sent to accounting.

**3. Inventory Management** — When a user relocates to a new location/department (or is laid off), or an MPLS circuit is cancelled, TEM companies have platforms that handle these types of Moves/Adds/Changes/Deletions (MACDs). Advanced TEM systems create and maintain a dynamic inventory of all the voice, data and mobile assets across an enterprise to a centralized location. It is updated periodically and automatically.

**4. Wireless (Mobile) Expense Management.** This has become a very hot area within TEM, since the average enterprise supports many different types of mobile devices that run two or three operating systems for wireless devices, and often multiple telecom service providers. Then there are the differing regulations and billing models, qualitatively different than those of wireline carriers. The most advanced TEM systems and services can handle this, having become all-inclusive, covering mobile contract negotiations, mobile policy development and enforcement, invoice processing and allocations, provisioning and fulfillment, inventory management (such as MACD), etc.

**5. “Business Intelligence” or “Intelligent Total Communications Management”** — Since all business processes are becoming telecom-enabled and many assets relate to voice, data and mobile,

TEM ultimately reaches in to “fix” and streamline the corporate infrastructure, which can include everything from vendor contracts to cost center allocations and changes in accounting. Like a tail wagging the dog, communications management can impose logic, order and efficiency on companies that have not only lost control of managing wireline and wireless assets, but suffer from business inefficiencies and confusion as a result.

One great example of a state-of-the-art TEM platform is [PAETEC](#) Software Corporation’s PINNACLE Communication Management Suite, an Enterprise Resource Planning (ERP)-type integrated software application that delivers total Service Lifecycle Management (SLM) for IT resources. (Service Lifecycle Management is a proactive method of managing the internal service delivery and service support processes of a business.) PINNACLE from PAETEC is designed so that large enterprise customers are able to effectively perform communications lifecycle management and consolidate the management and delivery of all technology-related services.

But the 800-pound gorilla in the TEM space is probably [Tangoe](#), whose CommCare suite of managed services provides organizations with the visibility and control needed to manage fixed, mobile, and converged communications, even throughout a global enterprise. CommCare comes in three pre-packaged component layers — Base, Enhanced, and Premium. These deliver increasing amounts of functionality and can rapidly aid the management of an organization’s fixed and mobile communications, from simple invoice capture and processing to a complete range of outsourced services.

First, CommCare Base targets customers seeking a sort of entry-level software-as-a-service (SaaS) offering. CommCare Base is for organizations needing access to Tangoe’s automated optimization technology but want to manage their communications processes internally.

Next up, CommCare Enhanced incorporates the Base layer, but provides full service outsource management of the invoice and inventory management, assurance testing, and reporting.



# Introducing the VoIP Phone Systems Global Online Community

Voice over IP is transforming the business communications space with immediate benefits, including cost savings, added features, greater functionality, remote access, and more. Finding the right VoIP phone system for your business can be a challenge, which is why FreedomIQ brings you the VoIP Phone Systems community on TMCnet.

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At the top, CommCare Premium incorporates both the Base and Enhanced services. CommCare Premium provides enterprises with Tangoe's most complete outsourced solution for the management of a communications environment, throughout its entire lifecycle.

Moreover, beyond simple visibility and reporting, Tangoe can give you an even more clear, precise view of where your business communications expenses currently stand. You can call upon Tangoe's experts to interview your voice, data, and mobile communications management teams, followed by a review of your current contract and invoices. After bringing to bear Tangoe's technologies to evaluate your enterprise-wide communications environment, Tangoe's experts prepare and deliver a detailed summary report of current state key processes including invoice processing, inventory management, provisioning, and wireless management. Thus, Tangoe can define any "gaps" in your current processes and can make recommendations as to how you can best optimize your fixed and mobile environments. (Obviously nothing beats real hard dollar savings summaries, supported by calculations, and a list of the steps needed to realize savings in a cost-effective manner.)

**Rivermine** is another famous provider of automated solutions (both software and managed services) enabling various kinds of organizations to both visualize and control their telecom spend. Rivermine has saved many Fortune 1000 companies and large government organizations millions of dollars per year. These market-leading Telecom Expense Management solutions automate the entire telecom lifecycle including contract sourcing, ordering, inventory management, invoice processing/auditing and reporting/analytics.

John Shea, CMO of Rivermine, says, "Interestingly, the economy appears to be helping our business. We closed out a great 2008, with our sales having increased by about 110 percent year over year, which is exciting. We can look at the leading indicator of 'lead flow' at this point in time, for example: If you look at the inquiry level in our company about TEM in Q4 *versus* Q3 2008, there has been an increase by about 50 percent. So interest is increasing, given the economy and the cost-saving nature of TEM."

"We've been engaged in some other interesting activities," says Shea. "Over last year, we had a new software release, Rivermine 6.0, which had a lot of new functionality in it. IBM put out a press release about a big partnership they have with us, and so we're happy to be the selected vendor for their offering. That's a trend, too. You're seeing more and more business going to the big BPOs (Business Process Outsourcers) such as **IBM**. That's what Gartner says is the future of the industry, because you have these companies that have broad, global reach, and people in many countries around the world who can provide outsourcing scale around these types of offerings. They're able to bring to bear some very powerful and unique capabilities such

as financing mechanisms and things like that, which smaller companies can't match. IBM can go to a customer and say, 'We'll finance the deal for you, you don't have to pay us right now, or we can reduce this part of your deal.' So we're happy to be the partner selected by IBM."

"In terms of trends, wireless continues to be hot," says Shea. "If you look our deals over 2008, nearly 50 percent had some kind of wireless component to them, for example a wireless managed service component. We're seeing more and more purchasers wanting to have both wireless and wireline TEM solutions unified together. We're also seeing a lot of international activity, which continues to pick up steam. And of course our partner IBM operates in about 170 countries, which is one reason by Gartner sees the outsourcers such as IBM playing a major role as we go forward. But we continue to see interest in international in terms of the inquiry level and leads around solution sales. In the closing days of 2008, we signed a number of international deals, one of which encompassed about five different companies based overseas, with offices being supported in Europe and Asia for these different customers of ours. We see Canada continue to grow, for example, where we closed a major deal toward the end of 2008. We see interest in companies that are headquartered internationally as well as companies that are headquartered in the U.S. and are trying to support offices overseas or have some kind of spend level overseas."

"Another trend that we see is that, quite frankly, there are a number of companies in our marketplace that tend to be a bit smaller, that perhaps didn't take on financial investment from investment houses the way Rivermine did over the years. And some of those folks are really struggling in terms of trying to stay in a good financial situation as their opportunities to get loans or whatever dries up. If you look at the **Gartner** list of 30 or so companies covered in their most recent MarketScope, our understanding of it is that about eight of those during 2008 have either gone on the block for sale or have been sold. So there's quite a bit of real and potential merger and acquisition activity going on. Some of the smaller TEM companies are having to deal with the financial challenges that also come along with the present economic situation. The good thing is that we're on the other side of that divide, because our sales continue to grow and we've taken on investment capital. It's a great time for TEM." **IT**

*Richard Grigonis is Executive Editor of TMC's IP Communications Group.*

The following companies were mentioned in this article:

**PAETEC Software Corp.**  
www.pinnsoft.com  
**Rivermine**  
www.rivermine.com

**Tangoe**  
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Allworx is a leading provider of VoIP solutions for the SMB market. To learn more about their offerings or to stay up to date on the latest in Business VoIP, visit <http://businessvoip.tmcnet.com>.

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# Who, What, Where, When, WiMAX?

By Richard “Zippy” Grigonis

**W**iMAX aficionados would have you believe that it's better suited to mobile voice devices than LTE, which is supposedly good mostly for large file transfers. That doesn't necessarily appear to be the case. LTE could very well make a huge impression in all mobile communications areas once it gets fully deployed, but for the moment, WiMAX is the wireless broadband star among vendors and network operators.

One company familiar with the underlying workings of WiMAX is Beceem, is a major provider of high performance chip solutions for the Mobile and Fixed WiMAX market, and was the first to introduce terminal chipsets for the Wave 1 and Wave 2 WiMAX Forum profiles, which are based on the IEEE 802.16e-2005 Mobile WiMAX standard.

Lars Johnsson, Vice President of Business Development for Beceem, says, “WiMAX will overshadow LTE for the next three or more years when it comes to real, commercial deployments and will take full advantage of its two-year or more time-to-market lead over LTE. WiMAX has committed operators that are launching commercial service today and will have Mobile WiMAX networks up in U.S., Japan, Korea, Taiwan and Russia offering 4G service and covering a combined population of over 100 million people by the end of 2009. LTE, on the other hand, is running up the hype cycle at full steam, and will overshadow WiMAX when it comes to product announcements and talk about how great it is going to be once it gets here who knows when.”

As for what people will be using Mobile WiMAX for in the short term (voice, data or both?) Johnsson says, “Mobile WiMAX will be used both for data and for VoIP services. The primary focus in many Mobile WiMAX networks is on providing 4G mobile broadband services, offering data centric products in 2009, followed by MIDs and handsets in the first half of 2010. These handhelds will support seamless VoIP services, and some will also be made available as dual-mode products for 4G-3G roaming. In addition, WiMAX will serve as wireless broadband connection to the home/office in many markets, giving service providers the chance to offer converged service bundles.”

When asked if he expected consumers or businesses would be first to adopt WiMAX immediately, or both, Johnsson says, “We are seeing demand from both consumers and business.



There is a significant number of early adopters and prosumers that are waiting for a truly mobile Internet service and are signing up at a promising pace. There are also a lot of business that can benefit from anywhere broadband connectivity, especially ‘local mobile’ businesses like real estate or insurance agents, field employees or municipal service that can improve the way they do business by adopting WiMAX, and we are seeing this in some of the early deployments already.”

In terms of trends or challenges for WiMAX, Johnsson says, “At this point there are no remaining technical challenges in the WiMAX ecosystem. The good news for WiMAX is that product development commercial grade was completed by a number of the major equipment providers in 2008, so that sellable product is available from a large number of sources. This shields product development from the budgetary constraints that many new product development initiatives are currently under, especially those with a multi-year payback timeframe like LTE.”

## “Up in the Air”

Veraz Networks provides application, control, and bandwidth optimization products that foster migration to the Multimedia Generation Network (MGN). Service providers use the Veraz MGN portfolio to extend their current application suite and rapidly add customized multimedia services that drive revenue and bolster customer retention. The Veraz MGN separates the control, media, and application layers while unifying management of the network, thereby increasing service provider operating efficiency. Wireline and wireless service providers in over 50 countries have deployed products from the Veraz MGN portfolio, which includes the ControlSwitch, Network-adaptive Border Controller, I-Gate 4000 Media Gateways, the VerazView Management System, and a set of customizable applications, including the verazVirtu softclient.



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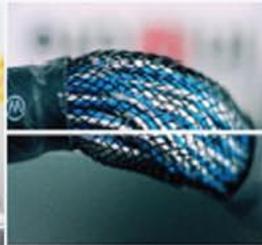
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Dawn Hogh, Vice President of Marketing at Veraz, says, “Veraz has a number of relationships with radio vendors, such as [Alvarion](#), and we’re also working with some systems integrators in terms of WiMAX offers. At this point in time we’re looking at WiMAX as just another vehicle in Voice-over-Broadband. A year ago or so there were many questions such as ‘Can you really do voice?’ because people thought there were voice quality issues. That myth has now been pretty much debunked. The problems went back to some original poor engineering for the network for voice, as opposed to any actual problem with voice over WiMAX.”

“We do see a lot of activity, but in terms of the number of deployments or in gaining momentum, I’d say WiMAX has progressed at about the same rate during 2008 as it did previously,” says Hogh. “I think there’s still a question, especially with the current economic climate, as to how much WiMAX deployment will occur and will we really see WiMAX be a lot slower than was initially expected. That would then tend to signal that ultimately the market may just shift over to LTE [Long-Term Evolution] instead of WiMAX. At the moment most of the technology that exists today is on the WiMAX side, while LTE is still in the process of evolving. When you have that kind of deployment window, it seemed to signal that there would be an interval of a couple of years when WiMAX could really grow before LTE got going. But the economic downturn appears to be keeping WiMAX adoption from really accelerating. So everything is ‘up in the air’ right now. That’s not to say that there aren’t WiMAX deployments. It’s happening, but there’s just no tremendous uptick that some people thought would happen. There are some geographical areas, however, such as Africa, where WiMAX does make sense, and we’re seeing it become a driver on the data side, and then it’s pretty straightforward to add voice service on top of that.”

“We see some activity,” says Hogh. “What happens is that a lot of the WiMAX bids just never close. So there’s still a lot of speculation, but in terms of actual WiMAX deployments, that has slowed or hasn’t ramped up, depending on what your view of the market was initially.”

“Technologically, WiMAX works,” says Hogh. “In October of 2007 the broadband wireless provider ONEMAX officially launched its WiMAX 802.16e network in the Dominican Republic, which was the first IMS over Mobile WiMAX deployment in the Americas. Veraz’ ONEMAX deployment has been humming along very well since we turned that network up. So, we can at least be sure that there aren’t any technology issues blocking the deployments.”

### Something New “Under the Hood”

Volubill provides real-time monitoring, control and charging software to communication providers around the world. This

enables competitive differentiation and rapid time to revenue for data, content, VoIP and messaging services, leading to decreased customer churn and increased customer acquisition. Volubill has its sights on becoming the leading global supplier of charging and control solutions for pre-, post- and now-pay environments for all fixed, mobile and Fixed-Mobile Convergent (FMC) environments, irrespective of the underlying network technology including WiMAX, IMS, IP, CDMA, GSM and 3G.

Volubill has focused on the need for operators to accurately charge for all services with zero revenue leakage and the need to know in detail what users are doing. To these ends, the Volubill WiMAX solution offers a single platform to perform usage management, charging and rating functions. The need for total revenue and usage policy management by WiMAX operators is great, as is the importance of intelligent Authentication, Authorization and Accounting (AAA).

Volubill’s CEO, John Aalbers, says, “We’ve been around since 2001, when we appeared with probe packet examination technology that sits on the IP line, looks at all the packets going past and then uses that information in real time for lots of different applications. Over the last few years we’ve grown to build those applications on top of our probe technology. There are two in particular: One is charging — the idea of balanced management, rating, pricing and all of that. More recently there has appeared a concept called usage policy management which is designed to reduce the need for network upgrades with operators. In other words, as the bandwidth consumption grows and grows in IP networks and over time with WiMAX as well, we’re able to track the usage on an individual subscriber basis and the type of service that they’re using, and apply quotas, effectively, to what they can do. The idea here is that the ‘bad’ users who pay very little but use a huge amount of bandwidth are controlled a bit better than they were in the past. That’s the basic area in which we work, and it’s quite a unique footprint that we bring to the market because we have an end-to-end solution that starts in the network and goes all the way through to the BSS layer. Most companies either do one or the other side of that and not both in a single platform.”

“We’ve been working on WiMAX for a couple of years now,” says Aalbers. “We determined a number of years ago that WiMAX was going to be tremendously strategically important for us, particularly because our focus is largely on the emerging markets. And of course WiMAX is very applicable to those markets, given the lack of fixed-line infrastructure and the demand for bags of services coming up as well. We really wanted to make sure that we had out-of-the-box solutions which we could sell into emerging WiMAX markets.”



## Introducing the **Small Business VoIP Online Community**

Small business VoIP adoption is growing, largely because of the cost benefits, but the fact is that hosted VoIP services for small business, like Packet8's Virtual Office, provide much more than cost savings. The greater versatility of hosted VoIP system allows businesses to customize their telecommunications packages to meet their unique needs, but without requiring large up-front expenditures for equipment, installation, maintenance, or IT staff. For the latest news and information on VoIP services specifically designed for the small business market, visit the Small Business VoIP community on TMCnet, sponsored by Packet8. Packet8 Virtual Office is an affordable, robust and easy-to-manage phone solution with all the premium PBX features and functionality of a traditional telecom system.

On the Small Business VoIP Community, you'll find:

- Free consultations
- Free trials
- Free quotes
- Feature articles
- Case studies
- Technology briefs

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“Our company has been growing well over the past three years,” says Aalbers. “We’ve grown more than 500 percent. In fact, in 2008 we grew 84 percent more than 2007. Q4 2008 was our best quarter ever. We’re really just riding a nice wave around mobile, data and WiMAX that’s driving our business forward. With the emerging foreign markets, you’d think that customers were just after a cheap phone call, but the amount of data usage in those markets is growing just as fast if not faster than in the Western economies. It’s quite surprising and exciting for us.”

“There are both challenges and opportunities when it comes to WiMAX, and we’re certainly following the trends on this,” says Aalbers. “WiMAX service providers have specific control and charging requirements for the data services offered via WiMAX, areas in which Volubill can help, such as needing one-stop and cost-efficient subscriber control, charging, billing and efficient multi-payment management since WiMAX technology can be embedded in a wide array of equipment sold via a wider distribution network than traditional mobile devices. Customer acquisition, payment and credit control are now a more sophisticated affair under WiMAX. You’ll be seeing universal customer reach into WiMAX data services via pre-paid, post-paid and/or now-pay mechanisms, and the way to accomplish cost-efficient revenue collection in such an environment is with systems capable of automated seamless dialog. Then, of course, there’s differentiated service capability. To effectively compete and provide profitable data services, customer segmentation and value-add services such as VoIP, things such as granular connection tariffs will be necessary. Subscriber control, charging and billing systems will have to provide flexible service policy designs that complement network policy enforcement points in ASN gateways and service delivery platforms. Such policy decision-making occurs in the context of functions such as real-time rating, and charging must operate with extremely quick, millisecond response capability.”

Fortunately, Volubill’s CHARGE-IT platform provides WiMAX operators with a solution that enables fully intelligent AAA, user-, service- and application-level policy decision and QoS control with a flexible method of defining and maintaining service and policy decisions, mobility management with optional CSN-anchored MIP and Home Agent support, real-time charging and payment control, in-line and off-line user dialog and advice of charge, IP address allocation, Post-paid/Pre-paid (including now-pay payment options) and Now-pay Payment Options. It also supports interfaces to all key ASN functions, embedded in ASN-gateways including Network Access Server (NAS) using AAA/RADIUS, service flow authorization using caching or processing forwards, and application function triggers.

CHARGE-IT also provides policy enforcement and service control options traditionally found in the ASN, to be located centrally, so that service providers can provide unified and network agnostic services.

In terms of WiMAX trends, Donal O’Callaghan, Volubill’s resident WiMAX Technical Expert, says, “From a commercial perspective, we see that many operators are interested in turnkey solutions. They know it takes funds to build out the actual physical infrastructure, and as a result we see a lot of ‘channel-to-market’ wherein the network equipment providers are supplying turnkey solutions for everything from the network infrastructure all the way up to building and charging. So we’re working quite hard on our relationships with the network equipment vendors, and we’ve made some good progress there.”

“From a technical perspective, considering the size of Volubill, the biggest issue for us is keeping an eye on the standards and following those standards at an appropriate point in time,” says O’Callaghan. “There are a lot of standards out there. For example, they’ve begun working on the standards for roaming. There’s nothing critical there yet. So we just have to make sure that we’re delivering the functionality that our customers need and we’ll be ready when the market is ready to accept the new standards. Most of the activity we’ve seen in WiMAX thus far in terms of business opportunities for us, has been on the fixed side. It’s only been in the last few months that we’ve started to see some seriousness in terms of the mobile side of things. The mobile side is a bit trickier, since we’ve got things such as roaming to consider, and the emerging standards associated with that. And obviously security is another matter, particularly because we provide an AAA function, and it needs to interact directly in the network infrastructure as the subscriber is roaming through the Mobile WiMAX scenario. So there are more stringent requirements on the AAA platform when it comes to Mobile WiMAX. But as we work with various vendors, as was typical with ISPs and in the mobile space, we see that each vendor has its own particular flavor of the documented standards. We’re taking them into account as we encounter the different network vendors.”

### Flexible and Profitable Mobility

Cisco’s complete end-to-end broadband wireless solution consists of best-in-class Mobile WiMAX technologies, which are tightly integrated with Cisco’s IP NGN transport and service-delivery infrastructures.

Cisco’s Kittur Nagesh, Director of Marketing in the Service Provider Marketing Segment, says, “Some confused people place WiMAX and LTE in opposition to each other, in the context of the mobile Internet. Mobile operators are starting to

## Introducing the **Asterisk Global Online Community**

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Participants in this community will be better prepared to make the proper decisions when it comes to selecting enterprise communications solutions based on Asterisk.

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deliver services beyond voice, and many of these rich multimedia-based apps for both business productivity and consumer infotainment demand unprecedented amounts of bandwidth. This forces the development of new RANs [Radio Access Networks] such as WiMAX and personalization technology, while the additional bandwidth itself encourages its use and spurs the development of even more bandwidth hungry apps.”

“The underpinnings of all this are IP networks. So we’re excited that what some people call 4G networks, such as LTE or WiMAX, are on the move. WiMAX is already here, while LTE trials start in 2009, with roll outs occurring perhaps in 2010, 2011 or 2012.”

“Regardless of when large-scale LTE adoption occurs,” says Nagesh, “it’s fair to say that end-to-end high performance IP architectures and solutions will drive the next wave of the Mobile Internet, which in itself is good for the ecosystem and for Cisco, since we can build on our strengths and can extend our portfolio of gateways, content service engines, and so forth to adapt to and serve the needs of these high performance networks.”

“In terms of personalization, things will be micro-segmented so that it will all become a matter of the network doing things for particular individuals, rather than similar groups,” says Nagesh. “So one could capture ‘long-tail’ markets in a nicely-architected end-to-end IP system if there is sufficient intelligence operating in the network.”

“The ‘choke point’ is the radio aggregation piece,” says Nagesh. “In the 2G world, most of the mobile applications were voice, and a handset talks to a base station, which has a T1 or E1 which connects to an IP edge which in turn connects to an IP core, and often many of these networks used MPLS which kept them in good shape trafficwise. And there were gateway boxes to adapt TDM or ATM traffic to packets. So, overall, in the voice world, the upstream traffic was largely served by T1/E1 at the cell sites. In the mobile Internet world, which is already happening, T1s and E1s will be grossly inadequate and you will actually see an obvious ‘choke point’ where they connect. We feel that when high bandwidth radio interfaces such as WiMAX and LTE appear, Carrier Ethernet-type services can yield greater backhaul bandwidth, and high performance cell site routers will also become the norm, so that the operators and providers can innovate in terms of their business models, whether it is based on ‘all-you-can-eat’ or personalized or application-based or whatever. In short, the architecture needs to address the ‘choke point’ to facilitate innovation in terms of business, billing, customization and personalization.”

“As a ripple effect, you will see the IP edge becoming ‘smart’ and also the IP core becoming high performance and scalable in nature,” says Nagdash. “From Cisco’s standpoint, we feel that this is good, because it’s driven by consumer behavior, and it really promotes for interoperability and innovation, which is what IP has been throughout its existence. That is a bandwagon in which Cisco has ridden.”

“Another point concerning this Mobile Internet phenomenon, is that the notion of mobility needs to encompass more than just radio,” says Nagesh. “Sometimes Mobile Internet may actually be an oxymoron. It’s Internet that handles any device, any entity, any network, and you as a consumer will get what you want where you want it. But let’s assume that the next wave of innovation consists of higher performance rich media applications and collaboration technology connecting to high performance radio networks. There we feel that mobility will transcend the idea of just being associated with the handset. You’ll be doing something at home, let’s say watching the turmoil of Wall Street on CNBC, but you must go to work or catch a train for some reason. You could just push a button and switch over to your iPhone where suddenly it ‘knows’ where you are and you can view the same channel as your walk to the bus or train station or you hop into your car. That is also, in our definition, ‘mobility,’ and we’ve spent a lot of time over the past several months explaining this redefined notion of mobility, which is ‘anytime, anyplace, any device,’ and the creation of an infrastructure and application ecosystem to deliver the apps our customers want, wherever and whenever they want them.”

“You can extend that analogy to video and unified communications and you’ll actually see Cisco launching applications to reflect this behavior, which we call The Connected Life,” says Nagesh. “We feel that the discussion ought to be: ‘The phenomenon is happening, so how will the provider monetize the customer’s experience in a meaningful way, while creating an architecture that gives them openness, flexibility and velocity of innovation on the service side, business side or application side?’ So it’s all quite exciting.” **IT**

*Richard Grigonis is Executive Editor of TMC’s IP Communications Group.*

**The following companies were mentioned in this article:**

**Beceem**  
www.beceem.com  
**Cisco Systems**  
www.cisco.com

**Veraz Networks**  
www.veraznetworks.com  
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# Media5 Corporation Transforms the Branch Office

By Richard “Zippy” Grigonis

In these tough economic times, it's nice to hear of a company that's addressing the challenges and needs of the market. Media5 Corporation (see the cover story of our March 2009 issue) has actually strengthened its position as a leading provider of MMoIP solutions for service providers and enterprises with multi-branch applications. I recently sat down with Marc Skinner, the Director of PLM for the Mediatrix and Media5*Boss* brands of Media5, to discuss the company, its products and their philosophy.

**RG:** Media5 is new to a lot of people but in fact it's not new at all, correct?

**MS:** Exactly, Media5 has existed for 10 years, but people have gotten to know us as either Mediatrix or M5T. Until the fall of last year, Media5 had been only the holding company for the brands, but we decided that the synergies of the two divisions made it logical to combine the strengths under one new banner. Mediatrix and M5T certainly still exist as thriving product and technology solution brands, but going forward we will develop our strategic offerings under the Media5 brand.

**RG:** Here is the million dollar question: Why focus on the branch office marketplace?

**MS:** The world is shrinking and the office is no longer the large building in the center of town. The number of remote workers has increased dramatically in the last few years — by over 35 percent in North America alone. The Best-in-Class Organization Standards, a U.S. Government initiative, are developing solutions for optimizing and accelerating network traffic and remote management of branch office networks. Countries like Australia and many in Europe have led the way by passing initiatives amongst government employees to minimize travel by having employees work from remote locations or home.

In this environment, more and more headquarters may be in one city with offices all over the world, increasing the need for communication systems and solutions that will allow organizations to communicate reliably and securely as if they all were in that one building in the center of town. These attributes are at the heart of the Media5*Boss* solutions.

The breadth of our technical expertise is one of the strengths of Media5; the telecom marketplace is changing rapidly and you have to be able to bring the latest technology built into the right solutions to the market. We feel that we are ideally positioned to bring the combination of our award-winning VoIP gateway products and technology leadership to the branch office market segment.

**RG:** Your new product line is geared towards branch-office applications for service providers and enterprise; can you tell us a little about the Media5*Boss* line?

**MS:** Media5*Boss* stands for Media5 Branch Office Secure, Survivable solutions; they are suites of “all-in-one” solutions designed specifically for security and survivability in multi-site, branch office environments. Survivability is a key differentiator for the Media5*Boss*. The Media5*Boss*-Branch solution allows a remote office to maintain telephone service even while the Internet is down. The solution maintains telephony features for the branch extensions, while providing PSTN access. The solution requires minimal configuration as the integrated SIP Proxy learns passively as devices are initially registered in the branch office, allowing transparent activation when the WAN link fails. The solution is further enhanced by Security features that allow the encryption of the Media and signaling streams.

The Media5*Boss*-Branch can also act as a Session Border Controller for voice scenarios, thus controlling real-time traffic flows in and out of the branch office. These powerful features make it the premier single box branch connectivity solution for VoIP Enterprise or VoIP Centrex scenarios.

The Survivability and Call Admission Control capabilities, the availability of voice call routing and SBC functionalities, the ability to terminate SRTP calls, as well as the state-of-the-art QoS functionality make the Media5*Boss*-Branch a true one-box-solution for branch offices. For larger applications (beyond 150 users), we have introduced the The Media5*Boss*-Convergence products.

The evolution of Mobility Communications is also one of the key drivers in the Enterprise marketplace. To address this need, we have launched the Media5*Boss*-FMC, an all-in-one Fixed Mobile Convergence solution combining the technologies of the M5T MC Client and FMC Controller, with a variety of popular dual mode handsets, allowing users to freely roam between WiFi and cellular networks. It is very intuitive to use and provides a homogeneous interface for instant messaging, contacts, presence, and more unified communications features.

The movement towards FMC is one market trend that we're very excited about. We have seen a definite shift from wireline to wireless services; in the US alone, over 20 million lines have been disconnected in the last few years. ■■

For more information on Media5 you can visit [www.media5corp.com](http://www.media5corp.com).

*Richard “Zippy” Grigonis is Executive Editor of TMC's IP Communications Group.*

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# Touchatag: The Interactive Advertising Opportunity

By Greg Galitzine

Alcatel-Lucent recently announced enhancements to its touchatag solution, an online Radio Frequency Identification (RFID) service that enables developers and Web-savvy consumers to create innovative one-touch applications which connect everyday objects with online applications.

As part of the announcement, Alcatel-Lucent unveiled a suite of five new touchatag business solutions to help businesses improve efficiencies while offering unique user experiences and services including an Interactive Advertising solution designed to enable businesses to create targeted interactive advertising at the point of sale.

One of the ways that a business or brand can leverage the innovative touchatag technology is through the creation of a “smart poster.” By adding a touchatag tag to a poster advertisers create an NFC (near field communications) hotspot for users. When the user touches the tag, or comes in contact with the tag via their NFC enabled mobile phone, they can get more information via an SMS, an e-mail, or even a phone call. Enhanced information, links to Web sites, coupons, contests... simply by touching the reader to the tag, all of these things can be delivered to the consumer at the moment he/she is ready for it — interactivity where they want it, when they want it.

Just think of the possibilities. If a shopper walks by a shoe store and sees the latest Manolos in the window, she can scan the tag in the display with her NFC-enabled phone and be presented with a Web site offering full product information, pricing, user comments and ratings, and the like. If she goes into the store she can scan a tag on the shoe itself and get instant access to inventory, available colors, pricing, maybe even a discount for having scanned the product.

Or imagine walking down the aisle in a supermarket and scanning an item, and being presented with a list of recipes — and other necessary ingredients — to create that perfect meal. A consumer might also cross reference a database to ensure that the suggested food items contain no allergens.

Of course all of this information can be shared with the shopper’s self-identified brand/loyalty programs. Now an advertiser or marketer can utilize this information to provide a more targeted offering, resulting in increased sales.

Touchatag takes campaign information (e.g., landing pages) and stores it in the network on an application server — not in the RFID tag. This offers the advantages of enabling context- and user-dependent action initiation; the ability to update a given campaign on-the-fly via a Web interface; also enabling full campaign reporting.

By personalizing the experience (the user controls the interaction initiation) and enhancing the end user experience by providing new levels of interactivity, advertisers will be able to drive more transactions, and more revenue.

## The Opportunity

When considering the potential impact of the touchatag service it’s necessary to define several related technologies, namely RFID and NFC.

Analyst estimates that the market for RFID network, software and services will increase over a five-year period from around \$1 billion in 2008 to over \$6 billion in 2013 (IDTechEx). Strategy Analytics projects that in 2012 around 250 million NFC phones will be sold and that in 2017 over 1 trillion RFID labels will be tagged. According to ABI Research, the RFID market is expected to generate \$9.7 billion by 2013.

The research points to an ever increasing acceptance (on the part of consumers) of mobile advertising, especially if it has personalized contextual value to the consumer, and offers some measure of control and interactivity.

Furthermore, increased personalization will change how ads are created and served to make them more entertaining. Recent Alcatel-Lucent research points out that end users are more likely to accept advertising if that message is related to a favorite musical artist, sports team, or other major interest. Likewise, text-based ads and ads for specific products and services, which may contain special offers or discounts are more appealing to end users if they find themselves in a place where they can enact a purchase.

By leveraging emerging technologies such as touchatag, marketers can take advantage of new and exciting ways of reaching consumers and serve them the appropriate messages at the appropriate time and place, creating an environment conducive to closing the sale and generating more revenue. **IT**

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