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INTERNET TELEPHONY®

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And the Next FCC Chairman is... ?

Although many members of the outgoing Bush administration were accused over the years of being too receptive to the wishes (or even whims) of the wealthy in general and big business in particular, one of the more endearing characteristics of outgoing Federal Communications Commission Chairman Kevin Martin was that he could, on occasion, miraculously draw the simultaneous ire of both the telecom industry and consumer groups.

As we went to press, the world waited with proverbial baited breath (okay, maybe just us telecom pundits were excited) as President-Elect Obama prepared to name his nomination for the new FCC Chairman. The two names most often heard in this regard have been Julius Genachowski and Blair Levin. The latest rumor — previously bolstered by the *Washington Post* — was that Obama had selected Genachowski, a Harvard Law School classmate of Obama who co-founded Rock Creek Ventures and LaunchBox Digital. He was Chief Counsel to former FCC Chairman Reed Hundt (former FCC Chairman during the Clinton Administration) and he has served as a special adviser to the global equity firm General Atlantic.

Genachowski was in charge of formulating the president-elect's technology and innovation agenda. This agenda presumably includes the communications industry, though we've only heard bits and pieces of Obama's ideas in this area. Superficially, it sounds good: deliver universal broadband Internet (truly universal, to all Americans), and is an advocate of "net neutrality", hopefully defined the way that Brough Turner does, which doesn't center on IP routers and IP pipe connectivity at network Layer 3, but at Layer 0, dark fiber. (We should regulate dark fiber and give control of the fiber to homeowners and businesses, allowing them to pick which ISP lites up their fiber.)



The Good Old Days? Richard Grigonis meets with FCC Chairman Michael K. Powell in Boston, 2004. (Photo courtesy of www.thirdeyephoto.com)

How I miss the more competitive atmosphere that existed in the days of Martin's predecessor, Michael Powell, a man who loved gadgetry in general and VoIP in particular. The concept of "government by special/private interests" has now become so rooted in the American Psyche (not to mention the actual workings of government) that one wonders if there's anyone out there who can stand up for the public interest. Powell had his flaws (e.g. his somewhat Puritanical stance and dogged pursuit of nefarious forces behind the Janet Jackson "wardrobe malfunction") but I'd love to see him back in his old post right now.

Of course, I'm always available (wink-wink).

But regardless of whoever becomes FCC chairman, the FCC itself faces an increasingly complicated and vaguely unsettling communications landscape. Advanced technology makes a mockery of the traditional hierarchical communications network structures that dominated the whole 20th century, even though the august players in that hierarchy continue to try to exert their influence over the government and public.

We can only hope that our upcoming President, Barack Obama, will make an inspired choice to fill what used to be a lackluster position. (Indeed, an urban myth from the 1950s relates how the paperwork of some political hack's appointment to the SEC was mistyped "FCC" and so history was changed, presumably not necessarily for the better.) **IT**

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Vidtel Targets the Video-over-IP Market

Distributors and resellers tell me that video communications products have been selling handsomely in recent years. Even consumers have caught the bug, as Skype execs can attest to their increased video penetration. Just as importantly, consumers seem to love to ditch their PSTN connections. They are going gaga over VoIP services from the likes of the cable companies, AT&T, Verizon, Vonage and others.

If you read the above carefully, you may have noticed an opportunity worth pursuing: Consumer video-based IP communications, or, in laymen's terms, "videoVonage".

A pure-play IP communications service provider is an interesting idea. If I had to come up with the ideal person to run such a company, who would I pick? Someone who was picked as one of the Top Voice in IP Communications by *Internet Telephony* and someone who has seen the market progress over 10 years and has a lengthy resume in the space.

One such person is Scott Wharton, and he is a veteran. He worked at VocalTec – the company that launched the VoIP industry. He's spent the last nine years at Broadsoft, a leading application server company. This past April he left Broadsoft, went to Silicon Valley, got funding and is just now starting up a company called Vidtel, a pure-play consumer video service.

For \$199, you get a Grandstream Networks videophone which allows a predetermined zoom level and a quality speakerphone. Moreover, you can choose from two classes of services. The standard plan costing \$14.95 per month gives you traditional calling features, free directory assistance, call notification, do not disturb, unlimited video calling, video mail (with forwarding to your inbox), a traditional telephone number and E911. For \$29.95 per month you get simultaneous ring and unlimited calling in the U.S. and Canada instead of having to pay for 3.9 cents per minute. Moreover, if you pay in advance, for \$100/year you can get the standard plan and for \$250/year you can purchase the premium plan.

Such a great price point should make this service attractive to SMBs. After all, at \$199 for a videophone and low VoIP rates, there is no risk – especially when you factor in the money-back guarantee.

Although the phones have video screens, they act as traditional phones when not talking to another Vidtel phone. The screens can view XML feeds and you can see the latest headlines on the screen when you aren't using the phone. The install is truly plug-and-play. Firewall and NAT traversal issues didn't appear at all. When the phones are plugged in they find the Internet and download the latest firmware. A few minutes later you're ready to go.

Wharton wants to eliminate the walled garden model so common these days. So, instead of keeping his phones talking only to other Vidtel phones, he is working to connect them to Skype, Google, mobile phones, desktops, corporate videoconferencing and other video solutions. With Wharton's background at Broadsoft helping carriers provide enhanced services, we can expect the Vidtel service to undergo rapid improvement. Wharton mentions that Moore's Law is going to make the devices cheaper, although they're pretty affordable now at \$199. In fact, in a video interview via his service, Wharton told me that trial customers were already buying new phones even though the service hadn't officially launched yet.

I firmly believe that if you launch a company which solves people's problems, they'll pay for your product or service. Indeed, the iPod turned out to be a product that solved a problem we didn't even know we had – the gadget became a "category creator". Vidtel could become a category creator as well.

In my long weekend of testing I really found the service useful and I hope Vidtel kicks off a new category of service provider and forces more innovation into the market. After all, Wharton knows this business well and knows what buttons to press to get consumers interested and to make competitors nervous. **IT**

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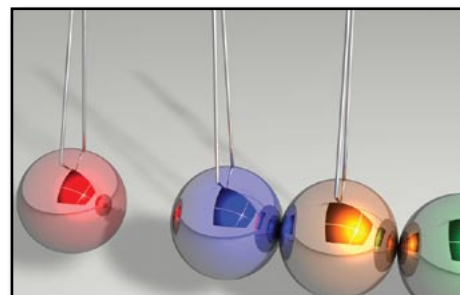
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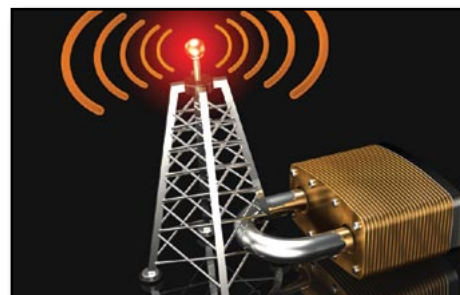
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Here's a list of several articles currently on our site.

Expert: The Biggest Cyber-Threat to SMBs Are the Workers Within

If there were a market for human dependency, the Web would be a market share leader. It's a phenomenon that hasn't escaped the notice of criminals long engaged in fraud and theft. In fact, if we believe the experts, it's one of the United States' most pressing national security measures — even more so, as the U.S. government approaches \$100 billion in IT spending per year.

But what does that mean for small businesses?

www.tmcnet.com/2658.1

Adoption of IP Communications Driving Video Conferencing Growth

Wainhouse Research recently conducted its annual survey of video conferencing end users, and found that the two greatest drivers of visual collaboration and communications solutions are, in fact, travel reduction and improved decision making. The survey, which included 247 video conferencing users, indicates that 23 percent of respondents either have deployed or are planning on deploying telepresence solutions within a year. That figure may climb as businesses increasingly look to succeed in a struggling economy.

www.tmcnet.com/2659.1

YouTube May Help Unemployed in 2009

Challenger, a Chicago-based firm that tracks job cut announcements, said 156,000 tech-sector job cuts were announced through November, or about 15% of the just over a million announced reductions this year. That's in contrast to the period of the dot.com bust, when tech job cuts accounted for 36% of the overall total of job cuts in 2001 and 32% in 2002, the firm said. As layoffs continue, job seekers will increase their use of Web 2.0 tools to network and to stand out in a crowd. "YouTube could become the sandwich board of the new millennium," Challenger said.

Management Recruiters International Inc. in Philadelphia did an online poll of visitors to its Web site last spring, and out of the 500 Web site responses, four percent said they had used video in their job search.

www.tmcnet.com/2660.1

More Carriers Expected to Adopt Google's Android Platform in 2009

Market researcher IDC predicts that the cell-phone demand will slow down significantly next year overall. However, converged mobile devices are forecast to remain a popular option for many consumers, according to Ramon Llamas, an IDC (News - Alert) senior analyst. Despite the economic crisis, HTC CEO Peter Chou predicted last month that T-Mobile would sell one million G1 handsets in the United States and Europe by the end of 2008 — up from an initial analyst forecast of 400,000 units. HTC is also expected to launch a follow-up Android product called the G2 in the first half of next year.

www.tmcnet.com/2661.1

TMC's Whitepapers of the Month

Visit TMCnet's Whitepaper Library (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.

Call Recording and the Law — A Comprehensive Guide to Compliance and Best Practices

The current legal landscape for call recording consists of numerous federal laws and industry mandates. It is important for contact center professionals to have a comprehensive resource that provides general information and guidance on best practices necessary to achieve and maintain compliance and verification.

www.tmcnet.com/2662.1

The New New Thing: "Hybrid" Deployments for Speech

The new new thing is "hybrid". Find out about new deployment models for speech that lower the total cost of ownership. Get Datmonitor's white paper, Redefining Traditional Deployment Models for Speech in the Enterprise. Take a new perspective when evaluating speech services and the many options for deployment.

www.tmcnet.com/2663.1

Selecting a Gateway for your Microsoft Office Communications Server 2007 Deployment

Microsoft Office Communications Server 2007 allows companies to integrate VoIP technology into existing telephony infrastructure, eliminating the need for expensive network overhauls and also extending the useful life of existing investments. The purpose of this white paper is to propose the criteria on which to select a SIP-based gateway appliance to connect Microsoft Office Communications Server 2007 with legacy TDM-based equipment. Topics addressed include: deployment scenarios; lowering the total cost of ownership; ease of use; protocol support; and the benefits of a hybrid gateway.

www.tmcnet.com/2072.1



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By: Brough Turner



Non-Unified, Non-Converged Mobile Communications

We've been hearing about unified communications for more than a decade and today there are some unified and/or converged services I actually use. If nothing else, I receive the occasional fax via email. But I also run three different

instant messenger programs at all times, two social networking applications intermittently and other communications applications on occasion. And I still have a home phone, an office phone and two mobile phones plus I travel with a laptop and a digital camera.

"Unified communications" first appeared in the mid-1990s when unified messaging was extended using speech recognition to enable personal assistant functions. Today, depending with whom you talk, unified communications means some combination of telephony, unified messaging, personal assistant, email, instant messaging, audio/video/web conferencing and/or collaboration, communications-enabled business processes and who knows what else. Meanwhile mobile unified communications adds some fixed-mobile convergence to a unified communications system as defined above.

Will this succeed? Eventually yes, for some user groups. But don't expect to reduce the number of communications applications you use or the number of devices you carry.

There are many ways to communicate, the groups we communicate with are diverse and the pace of change is accelerating. In the past there were just a few universal applications, such as postal mail and the telephone. Today the Internet is well on its way to being universal, but it's a platform supporting multiple communications applications like email, IM, telephony and social networking. As rapidly as people figure out how to unify specific communications applications, new ones are invented. More importantly, since Internet connectivity is at the platform level, not the application level, we end up using separate applications to reach people on different application networks. That's why I use three instant messengers at once.

While most mobile devices are little more than phones today, the [iPhone](#), G-Phone and Blackberry Storm, with their respective application stores, show what will be possible as phones become more powerful and data connectivity becomes both open and affordable. Expect mobile communications diversity to outpace mobile unified communications for the foreseeable future. **IT**

Brough Turner is Senior VP of Technology, CTO and Co-Founder of NMS Communications (www.nmscommunications.com).

Inside Networking

By: Tony Rybczynski



2009 Business Trends

As we enter 2009, the economic slowdown is upon us, and IT Managers will be, more than ever, looking to align their budgets with business objectives. The following five criteria will be top-of-mind with IT Managers when making technology investment decisions. Targeting these criteria will make enterprises that much more ready when the economy picks up.

Targeting these criteria will make enterprises that much more ready when the economy picks up.

1. Show Me the ROI first. IT leaders will demand to see hard evidence as to how a technology will impact their top and bottom lines. In-year paybacks will be the norm. There are some low hanging fruits: for example, fixed mobile convergence can reduce cell charges by 30 percent.

2. Get the Facts on Green Claims. IT will demand vendors cut through the marketing speak and offer real solutions to reduce energy consumption and contribute to a reduction in carbon emissions and waste. [Nortel](#), for example, has gone to third party testing to substantiate claims that its data products use 40 percent less energy than those of the gorilla in the market.

3. Give me technology that evolves with my business. IT solutions need to be adaptable, appropriate for current use, and most of all provide a foundation for future growth as user needs and bandwidth demands increase. This is not the time to be

ripping out old systems and starting from scratch with new technology. For example, HSBC has deployed a communications integration software solution that allows them to implement their hot desking strategy across Nortel and Cisco IP PBXs, Tandberg desktop video and IBM Sametime environments.

4. Improve Collaboration For Accelerated Business Processes. Applications that integrate communications at the point of their usefulness are becoming increasingly important. It's all about time-to-decision within an increasingly global marketplace. For example, Orlando Regional Health has reduced its average patient discharge time by 4 hours, and dramatically increased its resource utilization and effectiveness by communications-enabling its clinical order entry system.

5. Manage the blending of business and personal technology. The lines between work and home are blurring. New hires have grown up with wikis, [Facebook](#), LinkedIn and Twitter, and expect to be able to use these types of tools in their work environment. To meet these expectations, enterprises need to balance the needs of individuals with those of the business. Unified communications extended to social networking capabilities can do just this, while providing a foundation for enhanced collaboration and accelerated business processes. **IT**

Tony Rybczynski is Director of Strategic Enterprise Technologies at Nortel (www.nortel.com).



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By: Mike Sheridan



The UC Journey Begins

I was in Beijing recently for a customer conference, and was able to steal a few moments to explore the city's Xiushui silk market. While pondering what gift to bring home to my daughter, I heard a vendor's voice say, in perfect English, "You must spend money to save money!"

Those words stayed with me on the 14-hour flight home, as I read one headline after another on the worldwide economic crisis. As we begin a new year, many of us are thinking about how best to invest in technology to move our companies forward, to improve collaboration, productivity and business processes, but of course still being cognizant of keeping costs to a minimum. In better times, our investment rationale is based on lofty goals like achieving competitive advantage or operational improvements. But now, maybe it's something much simpler.

Maybe — *we spend money to save money.*

It's a good thought, especially at this time of universal belt-tightening. Historically in times like this, IT investments are more likely to stay on track while other business expenses get axed, precisely because we expect technology to save us money. "Technology is already deeply embedded in many mission-critical operations and remains critical to achieving further efficiency and productivity gains," says John Gantz, an IDC analyst. That's why IDC recently forecast that, despite the downturn, "Worldwide IT spending will continue to grow in 2009, albeit at a slower pace."¹

The technologies of unified communications (UC) offer particular promise for driving efficiency and productivity. By extending existing investment and optimizing IT infrastructure, it reduces total cost of ownership by consolidating servers and multiple vendor solutions, eliminating the need to invest in and manage separate systems for email, instant messaging, voicemail and conferencing. And, it enables companies to better support a virtual workforce, allowing them to save money on physical office space and reduce travel with better video and audio conferencing and collaboration.

Taken together, companies can have more productive employees, leading to a greater return on investment. In short, *spending money to make money.*

Companies that are today implementing UC are engaged in nothing short of total transformation. Just as email revolutionized the way people exchange information, UC promises to dramatically alter the way people connect to each other. However, before investing in unified communications technology,

it's important to understand the benefits that correlate with the different phases of implementation. The benefits of UC are being realized on four levels:

- 1. Individual Productivity.** Making each employee's tasks easier and more effective.
- 2. Workgroup Productivity.** Extending productivity improvements beyond sole contributors to workgroups through collaboration and conferencing.
- 3. Communications-Enabled Business Processes.** Improving business processes by enhancing communications across multiple functions or the enterprise as a whole.
- 4. Enterprise Transformation.** Engaging an external ecosystem of customers and partners — using unified communications and collaboration — to accelerate the creation of new products, services and channels

These are the four destinations along the UC journey each building on the previous one. Each of these destinations come with key considerations to evaluate and accrued benefits to recognize along the way. I'll be detailing each of these and the associated benefits in this column in the coming months.

One compelling reason for beginning the UC journey now includes the very real possibility that your organization already has some of the infrastructure in place. You may have the licenses for using presence engines, instant messaging tools, and unified messaging applications, but you haven't turned them on to use to the best advantage. It may be just be a matter of creating a logical plan with the right software and services to step through each of the destinations at a pace that makes the most sense for your organization.

And if anyone asks you why you're investing in technology at a time like this, you know what to tell them. **IT**

Footnote:

¹ "Economic Crisis Response: Worldwide IT Spending 2008-2012 Forecast Update," by John Gantz et al, IDC, November 2008.

Mike Sheridan is Senior Vice President, Strategy and Marketing at Aspect Communications. With more than 20 years of experience in telecommunications and high-tech industries, Mike serves as a key strategist for Aspect Software, Inc., with a critical eye for identifying emerging and evolving markets and a knack for defining solutions to serve them. Aspect Software founded the contact center industry and is now the world's largest company solely focused on unified communications for the contact center. (www.aspect.com)

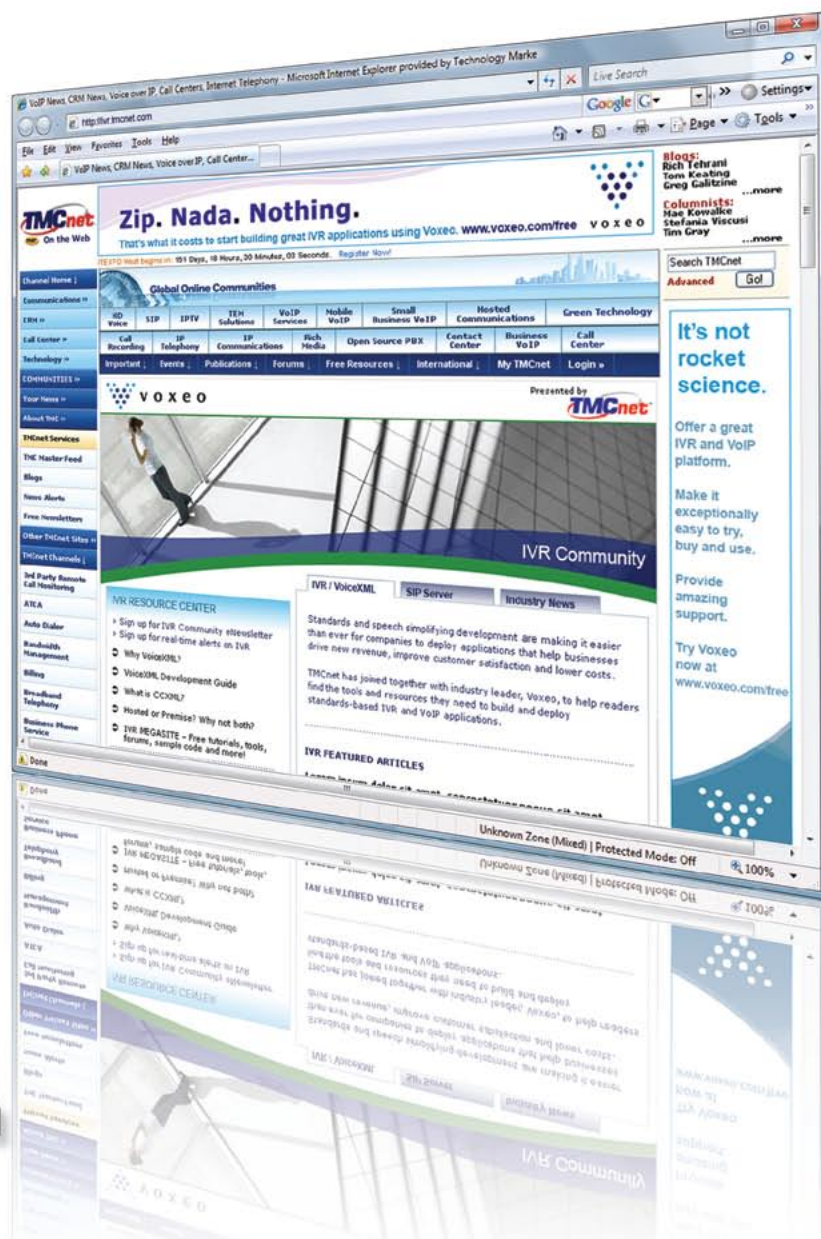


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By: Michael Stanford



Dual Mode Cell Phones and the Carriers

The defining difference between smartphones and other cell phones is an open operating system hospitable to third party applications.

There are some grey areas here, since some smartphones don't let you load any old application you like, and since you can run third-party Java applications on non-smartphones. But basically phones that run iPhone OS, Windows Mobile, Symbian, Blackberry OS, Palm OS or Linux are considered smart phones. The smartphone market is growing far faster than the overall mobile phone market, going from 11 percent of all phones in 2007 to 25 percent in 2012.

Analysts' consensus is that WiFi is becoming mandatory on smartphones. Like open operating systems, the issue of WiFi in phones is an aspect of the larger questions of opening networks and devices, edging away from walled garden strategies. The iPhone and the Google G1 phone both have WiFi, as do almost all of Nokia's smartphones.

Last November's crop of pretenders to the iPhone throne from RIM and HTC revealed that while AT&T and T-Mobile are warming to WiFi, Verizon is ambivalent. Verizon's HTC Touch Pro and two new Samsung phones have WiFi, but the Black-

berry Storm, Verizon's flagship smartphone, does not. None of Verizon's or Sprint's Blackberrys has WiFi.

From the users' point of view, WiFi is an unalloyed good thing. It gives much faster data service than any cellular network, and the traffic doesn't count towards data usage charges. From the carriers' point of view there are pros and cons to WiFi. Pros: it can be used to improve residential coverage and offload the cellular network; T-Mobile uses it this way with its @Home voice service. Cons: it enables customers to bypass the cellular network for their data traffic, potentially eating into revenues.

AT&T got around this issue with the iPhone by requiring a data subscription with each iPhone activation. Verizon has taken this a step further, binding all its smartphones to data plans.

If the Blackberry Storm ends up being a big hit, other carriers may take notice and cool towards WiFi, arguing that it is redundant now that high speed 3G data networks are widely deployed. If this happens, predictions of ubiquitous WiFi in smart phones may turn out to have been wrong. **IT**

Michael Stanford has been an entrepreneur and strategist in VoIP for over a decade. Visit his blog at www.wirevolution.com.

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By: Mehdi Salour



Securing Your VoIP Service

While there are many books and articles about VoIP security, I have yet to find a single volume covering the “A to Z of Security” for VoIP providers. Let us examine the fundamentals and some of the most important aspects of security for VoIP providers, many of which can also be applied to other types of Internet services.

Security policies and procedures: A good security plan begins with defining comprehensive security policies and procedures. When describing these measures, be aware that there are people with malicious intentions trying to compromise the fundamental security aspects of the network including authentication, confidentiality, integrity, and availability of the data and network. Also, policies and procedures are of no value if they are not enforced and backed by extensive training of employees. For that reason, all teams in the organization need to be trained about the best security practices in their respective functions.

Social engineering: IT is not the only team in danger of revealing sensitive information through social engineering. To protect privacy of customers’ data and avoid costly legal issues, special attention needs to be paid to the implementation of security policies and training for the departments interfacing with customers, or anyone in the service provider’s organization who handles CPNI (Customer Proprietary Network Information)¹.

Physical security: This includes, but is not limited to, keeping servers in secure datacenters, limiting the access to the datacenter to authorized employees, timely removal of badge access for terminated employees and frequent review of the access lists and logs for the datacenters. Recent Sarbanes Oxley regulations for publicly-traded companies are often useful for implementing successful physical security programs.

Application security: Applications for VoIP service providers can be categorized in several different ways. For the purpose of this article, these applications are divided into user-facing interfaces and the call flow engine. When it comes to user interfaces and websites, as with most web applications, the best practices include, but are not limited to, using encrypted connections, strong password requirements and login timeouts. With regard to the call flow engine, VoIP-specific threats such as SPIT (Spam over Internet Telephony), logic attacks (malformed packets), or eavesdropping must be carefully considered and addressed. If you are using SIP, make sure to check the network for vulnerabilities discussed in the security considerations section of RFC 3261.

System level security: No matter how well the VoIP application security is implemented, security vulnerabilities of the operating system and the individual servers provid-

ing VoIP services can open up the door for hackers to take control. At a high-level, some of the best practices for system level security include: 1) keeping servers updated with security patches; 2) removing or disabling unused services; 3) limiting the number of users with access to the servers; and 4) using Access Control Lists (ACL) to limit the access to servers to a short list of originating IP addresses (e.g., your NOC). Also, if you utilize virtualization for any of your applications, specific security considerations should be exercised for those environments².

Database security: Some of the best practices include encryption of data when storing sensitive information such as customers’ credit card or passwords and not exposing servers running these databases to the public Internet.

Network security: Network security measures can be distributed and implemented on each node on the network, or they can be implemented on the edge or border of the network. In most cases, however, a hybrid network security approach with some elements on the border of the network to control threats such as DoS (Denial of Service) attacks combined with the remaining components residing on the individual network nodes is usually the most desirable and effective method³. Implementation of NIDS (Network Intrusion Detection System) and active monitoring of the traffic patterns are critical steps to detect and stop the network threats.

While most security efforts focus on the topics discussed thus far, it might be surprising to know that most fraudulent activities on VoIP networks are initiated by users signing up through normal, legitimate processes. So, in order to secure your VoIP network, you must also implement fraud detection during the sign-up process and active monitoring throughout the life of the account. These practices include, but are not limited to, checking and monitoring trends of IP origination of orders, billing and shipping addresses, usage trends and automated mechanisms to intercept, block, or generate alerts for suspicious orders or usage patterns. **IT**

Footnotes:

¹ “CPNI,” November 2008: www.fcc.gov/eb/CPNI/

² M. Price, “The Paradox of Security in Virtual Environments,” *IEEE Computer Magazine*, November 2008.

³ P. Li, M. Salour and X. Su, “A Survey of Worm Detection and Containment,” *IEEE Communications Surveys and Tutorials*, March 2008.

Mehdi Salour is the Vice President of Service Delivery and Support at 8x8, Inc.



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.

The community presents a reliable resource for your business communications needs, with expert advice and the latest news from the VoIP industry.

<http://voip-phone-systems.tmcnet.com>

The community showcases:

- ✓ Free Quotes
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- ✓ Featured Articles
- ✓ Latest News
- ✓ White Papers
- ✓ Product Showcase



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By: Jeff Hudgins



Managing IT Related Costs in a Downturn

As we enter 2009 with a slow economy, Service Providers, Enterprises, and Data Centers are all looking for ways to improve efficiency and lower IT-related expenses. Over the next few months we will look at virtualization and cloud computing and the role they can play in reducing expenses. At the same time, we need to understand what's being done to control virtual machine sprawl and other risks associated with the cloud computing promise.

Medium and large enterprises are burdened with high levels of IT costs that have risen year after year. The application deployment process is slow, the management of deployed systems is complex, and hardware provisioning must be done to support maximum capacity with limited load balancing. Enterprises that use off-the-shelf hardware and software have raced to implement virtual machines into their infrastructure, but struggle with the security and lifecycle management controls.

In the fall of 2008, the Distributed Management Task Force (DMTF) ratified a set of specifications that address the security and management lifecycle of a virtual environment. The OVF (Open Virtualization Format) specification provides a standard format for packaging virtual machines and applications for deployment across virtualized platforms. Open Virtual machine Format will make

the VM a more effective platform by providing metadata about the requirements and contents of a VM, thus making it easier to manage thru automated tools. OVF enables flexible and secure distribution of enterprise software, facilitating the portability of virtual machines and giving customers hardware and software independence. Larger enterprises that develop their own set of applications to support unique requirements need tools to help them develop in a virtual environment as well. According to Dave Cotton, VP, North America Sales at rPath, "the momentum associated with 'agile' software application development is lost in the deployment chasm given IT operations requirements for control. rPath bridges this chasm, particularly in virtualized environments, via our 'agile' build, deployment, and maintenance platform while simultaneously laying a strong foundation for cloud computing."

Final Score. Server virtualization and cloud computing is coming to the enterprise, but the adoption rate will be defined by the acceptance of open standards like OVF and the use of proven development tools that reduce the security attack risks and lifecycle management complexity. **IT**

Jeff Hudgins is VP of Product Management at NEI, Inc. (www.NEI.com).

Ask the SIP Trunk Expert

By: Steven Johnson



The ROI of SIP Trunking

SIP trunking offers immediate cost savings with payback periods as short as six months making it a great investment in the current economic climate.

In our experiences with customers, we see SIP trunk installations paying for themselves – meaning, the entire installation of a new IP-PBX, phones, network upgrades and the Ingate solution – in less than a year. One recent installation, which transitioned a nationwide network of medical facilities to SIP trunks, resulted in a 40 percent reduction in telephony costs and a very rapid payback. Empirical evidence from other installations confirms this result.

SIP trunks reduce costs in several ways:

- With SIP trunking it is no longer necessary to purchase expensive BRIs (Basic Rate Interfaces) or PRIs (Primary Rate Interfaces) allowing the user to buy just the capacity they need. This is a major cost savings since the enterprise no longer pays for unutilized capacity, and can ramp up capacity for seasonal business peaks or staffing increases as necessary.
- Most enterprises have more bandwidth capacity than they utilize for web traffic. This excess can be used to support

voice traffic in many cases, allowing the enterprise to adopt SIP trunking without adding Internet bandwidth.

- The use of IP makes it possible to cost-efficiently use SIP trunks from multiple service providers, depending on optimal availability and the best rates (capitalizing on geography etc.). By routing calls to the cheapest service provider based on country codes, for example, significant savings can be achieved.

The productivity benefits with SIP trunking are also significant though less measurable. Once SIP trunking is deployed and the network upgraded to support it, a business has everything it needs in place to start using other SIP applications. These SIP capabilities can be used within the corporate network; they can also be extended outside the LAN, allowing satellite offices, remote workers and even customers to use VoIP and other forms of real-time communications applications to break down barriers of geography to share ideas and increase productivity.

In short, SIP trunking is one investment that is sure to be in demand in the leanest of economic times. **IT**

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

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By: Hunter Newby



Voice Peering Shows Intelligent Progress

It is very encouraging to see that even in the current disaster of the global economic meltdown voice peering businesses can find funding. This says volumes about voice peering in general and that the benefits are clear to those within and around the business as well as the venture capital community. It also says a lot about one company that got funded, [IntelPeer](#).

The \$18 million transaction, led by new investor VantagePoint Venture Partners, is IntelPeer's third round of financing. Coming from their roots in wholesale voice as VoEX, their first transition was to change their name to IntelPeer. This reflected their incorporation of intelligent least-cost-routing, SIP session management, ENUM and device discovery in to a suite of services. The milestone of this latest funding also marks a new direction for the company and dimension in the broad definition of Voice Peering. Their newly defined position statement on their website is worth quoting:

"Through our innovative, communications-as-a-service (CaaS) platform, IntelPeer AppworX™, our SuperRegistry™ and our extensive peering grid, we provide our customers with the platform to offer high-quality interactive voice, video, SMS, data and other rich-media services while providing significant cost savings for their telecommunication expenditures... Through intuitive APIs, Web services, skinnable widgets and applets, IntelPeer removes the com-

plexity of telecom and opens network functions to mainstream developers who are creating voice-Web 'mashups' and communications-enabled business processes embedded into enterprise, webcasting, social networking, entertainment and e-commerce applications."

Essentially they have created a Voice Peering Web 2.0 layer on top of their existing voice infrastructure which enables developers to link VoIP applications within their own various IP projects to the IntelPeer backend and have access to all of those services without having to create, or cobble them together on their own. IntelPeer operates their "own carrier-grade voice peering network carrying more than 6 billion minutes, with worldwide coverage delivered through an IP and TDM peering grid with over 50 leading service provider peering partners." Serving that up to the web world gives the web application developers a good head start. The ability to gain access to generic calling as well as value-added features and functionality for voice services is certainly useful. The Web 2.0 dimension of that access represents an expansion of voice peering beyond the traditional components of trunking and endpoint routing which will ultimately drive more web-based voice traffic. That is an intelligent route for those that wish to peer in the voice world. **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 or visit www.hunternewby.com.

Enterprise View

By: Max Schroeder



A Reseller Educational Series – Staying Competitive in a Challenging Market

Today's market conditions are presenting many challenges for resellers. Recently I had a conversation with Doug Green, publisher of Telecom Reseller, a publication with a readership of 37,000 readers, including 11,000 resellers plus a large number of end-users and developers. Our discussion, however, focused on reseller trends – specifically, what the smart and not-so-smart decisions resellers are making to adjust to today's market.

My first question: "What's the worst decision that you see at this time?" Doug's reply: "Cutting back on advertising, trade shows and other lead generating activities is the most damaging decision. Even if the market makes a dramatic turn for the better, these resellers will not have any leads in the pipeline so the fear of a downturn becomes a self-fulfilling prophecy."

He then said that the second biggest mistake was to continue business as usual: "Every market is different but during periods of relative stability, only minor adjustments to a business and marketing plan are required to stay competitive. However, the current economy is in a period of rapid change which means major adjustments may be necessary."

Doug suggests that resellers focus on products and services that save companies money or improve their efficiency and, preferably, both (particularly SIP Trunking). VoIP hosting and [SaaS](#) require little customer capital investment. These offerings can also have rich feature sets and conform to the business continuity and confidentiality regulatory requirements of Sarbanes Oxley and HIPAA. Moreover, these are Green technologies, a hot market segment. For example, SIP Trunking can dramatically reduce power consumption, which saves money and helps the environment.

Certainly, Doug believes in his own advice as his company will be exhibiting at [TMC's ITEXPO East 2009](#) in Miami this February, and Doug will be moderating a round-table discussion for resellers. So stop by his booth or visit the session when you are in Miami to get his latest views on how resellers can succeed in this market and ask about his new web site pbxtrend.com. Of course, to do this you must register for [ITEXPO East 2009](#) (www.itexpo.com) scheduled for February 2-4 in Miami – and don't forget the SIP sessions. **IT**

Max Schroeder is Senior Vice President of [FaxCore, Inc.](#) (www.faxcore.com).



SIP Trunking Global Online Community

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By: Rich Tehrani & Max Schroeder



Continuity Planning 101 — A Continuing Educational Series Disaster Recovery — Outlook for 2009

and customers seek to reduce capital expenditures. So how can resellers recommend quality solutions that also meet the customer's budget restrictions?

Fortunately, Business Continuity and Disaster Planning (BC/DR) concepts offer a variety of solid ideas. One obvious choice is to offer hosted services. Many companies are implementing a Reduction in Force (RIF) in anticipation of future reduced revenue. Of course, this leaves them with fewer people to handle the workload in the short-term, so employees must become more efficient. Hosted services provide a perfect blueprint for this scenario:

Idea I — Implement a hosted VoIP service to replace a legacy phone system to increase efficiency and employee mobility.

Idea II — Upgrade your outdated applications by moving to a SaaS model. Not only does a SaaS model provide the latest technology, it requires fewer IT personnel. A SaaS model also reduces the capital expense and the lengthy process of installing new on-premise hardware and software. The latter two items may actually be the secret to unlocking a budget freeze.

In today's economic climate, budgets are being trimmed

Idea III — Leverage Ideas I & II by shifting more workers to home office locations reducing space overhead and enhancing employee moral. A key point is that home offices also reduce employee costs such as clothing, commuting and lunch expenses. Plus eliminating commuting time reduces employee fatigue making them more productive.

A disbursed work force and infrastructure are fundamental concepts in BC/DR planning. All 3 of the above Ideas provide for a reduction in capital expenditures, higher operating efficiencies plus they meet business continuity requirements. Basically, a sales transaction is simply the fulfillment of a customer need at an acceptable cost. The burden of proof is on the salesperson but both parties must be *fully engaged to guarantee the delivery of a quality solution*.

Whether you are a reseller or end-user, come to ITEXPO East 2009 (www.itexpo.com) February 2-4, 2009 at the Miami Beach Convention Center, to get engaged and discuss requirements. **IT**

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

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

Nitty Gritty

By: Richard "Zippy" Grigonis



Applied Micro Circuits = Power-Efficient Base Stations

AMCC or Applied Micro Circuits Corporation (www.amcc.com) of Sunnyvale, California, is one of the few new generation of technology companies that has mastered the arcane art of building energy efficient solutions to process, transport, and store information for next-gen Internet data centers and carrier central offices. AMCC's expertise extends from high-speed signal processing to IP and Ethernet packet processing, to storage controllers and processors. They own a boatload of patents involving high-speed mixed signals, Forward Error Correction, RAID, and packet processing provide high value solutions.

And now AMCC has demonstrated advanced technology for more power-efficient base stations. They can take two of their Power Architecture processors (running at 1 GHz and producing 4,000 DMIPS) and integrate them into a standard AdvancedTCA Advanced Mezzanine Card (AMC) form factor. This configuration comprises their "Arches" reference design kit that provides base station developers with a turnkey platform that can consume less than 6 Watts per processor. The energy efficiency reduces heat dissipation in systems, thereby reducing the need for large heat sinks, elaborate cooling resources and additional facilities costs for operators.

On-chip integration for the two PowerPC 460 GT processors offers high-speed interfaces for industry-standard solutions based on Serial RapidIO, Gigabit Ethernet, and PCI Express interconnects.

The Arches compact AMC design conforms to the SCOPE Alliance profile for connectivity, enabling communications via Gigabit Ethernet or Serial Rapid IO switch fabrics with other modules using a carrier board. With Arches performing MAC layer processing, designers can quickly prototype a radio subsystem using a DSP board for the physical layer.

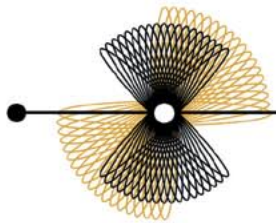
As AMCC's CTO Dan Bouvier says, "A major development trend today is the so-called green basestation but to capture the interest of mobile network operators, technology providers have to show a reduction in the total cost of ownership for these systems. The Arches reference design kit is a highly efficient platform with abundant processing density."

Expect to see and hear the word "Green" a great deal in the coming months. **IT**

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

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TeleTracking Technologies: Using IP Communications to Manage Growth, Increase Efficiency and Reduce Costs

As almost any entrepreneur can attest, running a service-oriented business requires a unique blend of savvy, flexibility and fortitude to coordinate sales activities, keep a handle on operations, respond to customer needs and control costs.

And when a business operates from multiple sites, or relies on the services of mobile professionals and remote workers, managing the business can become a cumbersome and complicated process punctuated by high travel expenses, skyrocketing long distance and mobile communications costs, and the difficulty in ensuring that remote-based and mobile associates remain productive and effective while on-the-go.

Managing a remote business was a particular dilemma for TeleTracking Technologies, a leading provider of patient flow software solutions for the health care industry. Headquartered in Pittsburgh, TeleTracking's solutions are utilized by some 700 health care facilities worldwide, all of which rely on the company's offerings to help optimize bed turnover, patient placement and transport management processes. Managing patient flow has become a critical challenge for hospitals. According to recent industry studies, the average 300-bed hospital can generate an additional \$10 million just by turning over a hospital bed an additional 12 times per year. TeleTracking's solutions enable its customers to capture this added revenue, while ensuring that patients' needs are met through the efficient allocation and management of bedding inventory.

"We are a true global business in every sense of the word," explains Blair Freer, vice president of technical support for TeleTracking. "Not only do we serve customers worldwide, but we maintain sales and support resources throughout North America and in Europe. In the past, our remote employees relied on traditional means to communicate, such as long-distance trunks, mobile phones and a very pricey subscription-based conferencing solution. As we became busier, we noticed that our expenditures were growing out of control. We needed to find a solution that was scalable and robust, but was better suited to support-

ing our business requirements."

As part of its process to replace its existing communications platform, TeleTracking met with a number of equipment vendors and partners to see how it could best leverage emerging communications technology in order to improve business performance. Among those they talked with was Prime Communications, a Pittsburgh-based Mitel partner proficient in IP-powered applications, including unified communications and collaborations, as well as IP telephony.

According to Dan Carmody, Prime Communications' vice president, it was apparent early in their discussions with TeleTracking that the new communications platform needed to address a number of key business issues.

"One of the biggest concerns for TeleTracking was scalability," recalls Carmody. "The company has experienced exponential growth over the past three years, where it now boasts some 130 employees spread throughout the United States, Canada and the United Kingdom. Its previous system, a popular VoIP solution that is positioned as a powerful solution for the small- and mid-size market, required too much programming and administrative time in order to scale up efficiently. We knew that our Mitel products would be much more efficient and user-friendly from this standpoint alone."

Another primary area where TeleTracking needed help was in its internal operations, particularly in terms of communications between remote employees, mobile professionals and its headquarters in Pittsburgh. Maintaining seamless communications among its staff was an inefficient, inconsistent — and expensive — process.



"From a managerial standpoint, our staff found it difficult and frustrating to reach the appropriate individual promptly if they needed a customer issue resolved, or required information for a proposal or technical training question," explains Freer. "Many times, we could not locate the right internal associate at the right time, which only escalated the frustration."

"In addition," Freer continues, "while our system at that time was also a VoIP solution, its inability to support intuitive conferencing, presence management and collaboration tools forced us to rely heavily on a very expensive subscription-based conferencing service in order for our sales team, management and operations professionals to communicate. As a result of these inefficiencies, our monthly conferencing costs skyrocketed to about \$8,000 per month. Certainly, we knew that the right IP solution should drive our costs down, and that's when we knew it was time to make a change."

After evaluating TeleTracking's current business processes and discussing how the company envisioned its future, Prime Communications recommended a solution that featured a flexible IP communications system coupled with powerful, embedded conferencing and collaboration tools that would increase productivity — and reduce expenses.

Scalable IP Communications

The centerpiece is the Mitel 5000, an IP solution that scales up to 250 users per location. The Mitel 5000 delivers robust voice

communications over the data infrastructure, plus supports digital and analog voice traffic, allowing TeleTracking to leverage its legacy infrastructure where it makes business sense.

"From an ease-of-use perspective, we find the Mitel 5000 to be incredibly intuitive and user-friendly," reports Freer. "We can easily add and change extensions on our own, without the assistance of a technician, which is a huge cost savings.

"In addition to its simplified administrative features, the Mitel 5000 platform can be easily expanded as our business needs change. This is a welcome departure compared to our previous system, which boxed us in, in terms of adding users to our network and integrating emerging features and applications into the system."

Conferencing & Collaboration

The potential of using advanced applications to improve business performance was a major factor in TeleTracking's decision to work with Prime Communications and

Mitel. With its subscription-based conferencing solution approaching \$8,000 per month, and an over-reliance on expensive cell phones for communicating with workers out in the field, TeleTracking needed to find remote communications applications that could drive costs down but bring productivity up.

Mitel's Audio and Web Conferencing (AWC) proved to be the perfect solution. Integrated directly into the Mitel 5000 communications platform, AWC delivers a variety of unified communications and collaboration features to discerning businesses that rely on mobile employees and geographically disparate offices. Through AWC, users can launch and participate in voice and Web conferences with colleagues, customers and suppliers from any location with an Internet connection.

"By integrating Audio and Web Conferencing into our network, we've virtually eliminated the need for our subscription conferencing service," explains Freer. "The savings from that alone approaches some \$100,000 per year.

On top of that, we have the comfort of using a solution that will grow alongside our business. As we say, flexibility to us is paramount, and that goes for applications in addition to infrastructure. Mitel's technology gives us a comfort level that other vendors do not."

More than Technology

While TeleTracking enjoys various business benefits through Mitel's products and applications, having access to Mitel's product management and engineering teams has been instrumental in its ability to successfully leverage these tools.

"Our partners at both Mitel and Prime Communications are sincerely interested in our experiences and take very seriously our feedback and suggestions," says Freer. "We did not enjoy this level of cooperation with our previous vendor. It just reinforces the importance Mitel places on understanding the needs of its customers, and its willingness to go the extra mile to deliver a solution that will meet our business objectives today and tomorrow." **IT**

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By: Elaine Cascio



Contact Centers and the Recession: Emerge as a Leader

Okay, we're probably all feeling a little hungover — if not from the holidays, from the wringer the economy has put us through. Instead of feeling discouraged about the budget that's been cut and what we *can't* do, I encourage all contact center managers, technologists and others out there to resolve to think about the possible and make the customer count this year.

Resolution: Spruce up Your Front Door

Does your website look scruffy and dated? Have you (like so many of us) just piled on more stuff without really looking at it from the user perspective? How about the IVR that front-ends your contact center? When was the last time you or some of your reps actually used it? And while you're at it, get rid of all the "placeholders" recorded by the girl from finance.

Resolution: Walk a Mile in My Shoes

Nothing hits home more than living your customer's experience. Try it out and map out the good, the bad, and the ugly. You'll find ways to improve the experience that cost nothing (or very little) and can provide bigger paybacks in satisfaction and loyalty.

Resolution: Meet the Future

Now is the time to position your contact center for the kinds of interactions your customers will be demanding. Develop plans for mobility, social networking, and unified communications so you'll be able to meet customer needs head on.

Resolution: Brush up on Quality

If you're like most contact centers, your quality monitoring scores are built around things like if the rep greeted the customer by name and how often they used the customer's name throughout the conversation. What you're probably missing is the real important stuff, like how what you're measuring rolls up to enterprise vision, branding, and customer strategy.

Resolution: Get Away from it All

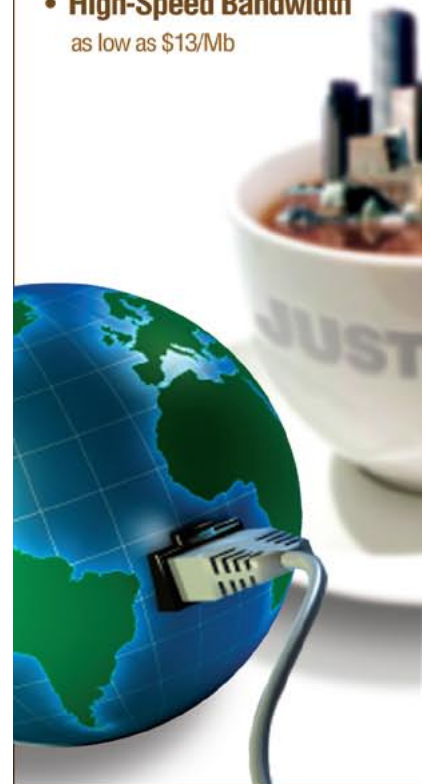
It helps all of us to step away from the day to day and gain new perspective on how and why we run things as we do. Do you have a strategy for your contact center that helps you and your staff understand the whys and hows of your everyday? If you have a strategy, make sure that key processes, metrics, and operations support the strategy. If you don't have a strategy, make that your next resolution. Your customers will be glad you did. **IT**

Just in time for the New Year, Vanguard is offering high impact, low cost checkups — for your self service, contact center, and technology.

Elaine Cascio is a Vice President at Vanguard Communications Corporation, a consulting firm that specializes in contact center processes, operations and technology. She heads Vanguard's self service practice. Visit them at www.vanguard.net or contact Elaine at ecascio@vanguard.net.

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By Jose Ferreira



Smartphones: Personal or Corporate?

The advent of smartphone systems such as iPhone, Android and Blackberry Storm, which blend corporate and personal functions along with touch screen ease-of-use, has caused issues for enterprises now asked to support these devices. This has strained IT and security departments that were not prepared to handle them.

Beyond the technical issues around managing and securing these devices lay a fundamental question about enterprise mobility strategy: Are the smartphones that your employees buy – with which they want to access their potentially sensitive corporate data – to be considered corporate phones, or personal phones?

Categorizing smartphones as corporate phones will make some decisions easier, but the exception list will get long and your IT and security departments will get many requests and complaints on using smartphones for personal purposes.

If they are considered personal phones, should software agents be installed or built-in functions be activated to:

- Allow encryption
- Be able to remotely wipe a lost smartphone
- Check for malicious software on websites and in downloads
- Determine if unauthorized data is being accessed, stored and leaked
- Determine who has liability if sensitive data is lost by the owner of the phone

If they are considered corporate phones, should standard security policy restrictions apply, such as restricting access to gambling and shopping sites, or restricting music and video downloads? Will employees be compensated for the purchase of the phones? How will your exceptions be handled? Will executives abide by the same restrictions – the answer is typically no, and handling these exceptions will be a key strategy component.

This is just a small sampling of the Corporate Mobility Policy decisions to be made around smartphones. Categorizing smartphones as personal phones has many advantages, if you can secure them and train employees to understand how to handle them securely like corporate laptops. Categorizing smartphones as corporate phones will make some decisions easier, but the exception list will get long and your IT and security departments will get many requests and complaints on using smartphones for personal purposes. In the end, isn't that why they bought these phones in the first place? **IT**

Jose Ferreira is the Security Solution Architect & Technologist at the Forsythe Solutions Group.

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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**

<http://small-business-voip.tmcnet.com>

Powered by:



By: Don Witt



VoIP Moving Forward in the Channel

VoIP in all of its forms continues its advance through various market segments.

Sales. As we move forward with SMB sales in the channel, this size of the business unit moving to VoIP will have a large impact on how the sale is made to the business unit and what solution is delivered. Smaller organization will tend to hosted and larger business units will lean toward premises equipment. Direct sales to smaller organizations do not have the return nor the margin required to support such direct sales. As the channel evolved, resellers found that the “sweet spot” appeared to be customers with a 25-station requirement. Sales time, installation and support kept the breakeven point at this level. It has gradually come down to the 15-20 user level as preconfigured solutions have become more readily available.

Hosted. The hosted solutions will be offered to customers via the web or email promotions. Branding will play an important role in this environment as very little direct sales time will be spent developing this market segment. The sales process will include the purchase of pre-packaged service bundles including phones and minutes. These packages will be shipped to the customer for self-installation. It will also be very easy to add additional service and bundles. This market segment is expected to grow from 11 million SMBs to 35 million SMBs by the year 2010, as reported by the Dell’Oro Group. Hosted solutions will attract smaller organizations and larger companies that have multiple locations and a large number of telecommuters. Agents having a large business list will enjoy great success in this market. VoIP service providers offering hosted solutions should be very concerned about competing with their direct sales or resellers channel that are selling premises equipment.

Premises. Premises solutions will continue to be the preferred choice of equipment for companies with 125 or more users. These solutions will include those that are Asterisk-based as well as proprietary solutions from the major telephony vendors like Avaya, Cisco, and others. It must be remembered that successful sales and deployment into this market segment requires onsite installation and support for deployment. The reseller will play an important role in these sales opportunities.

End-to-End. In both hosted and the premises solutions, quality will play an important role. Pre-site network evaluations should be performed. This will minimize the post installation problems and eliminate finger-pointing. Companies such as Ring Carrier, which deliver hosted services, provide onsite devices which include local routing,

network analysis, and diagnostic capabilities, providing an end-to-end solution. Maintaining a high quality network will determine the winners and the losers as VoIP moves into the future.

The Cloud Computing Wild Card. It is difficult to tell how cloud telephony will affect the overall telephony mix or how fast the telephony cloud will become a factor. Thus far, cloud computing has been designed largely for data and data access. Until recently, telephony was not really considered for the cloud and, as a result, cloud networks must be redesigned to handle the telecommunication requirement. The existing service level agreements would not comply with telecommunication requirements either.

It seems that the telephony cloud will play a significant role in the future of telephony. Telephony in the cloud will be purchased by a blend of both the small business and large enterprise and will deliver hosted services in much the same manner as the traditional hosted solution for the small business. The telephony cloud will appeal to many large businesses. Cloud telephony will provide for redundancy, geographic diversity, seasonal demand, high quality and flexibility. Figure 1 shows that cloud computing will play a role in the overall delivery of telephony services across all user levels. The exact volume at each level is yet to be determined but 20 percent would not be out of the question.

Cloud telephony will be sold by both resellers and agents based on the same criteria that is currently used for hosted and premises sales. **IT**

Don Witt is President of cyLogistics (www.cylogistics.com).

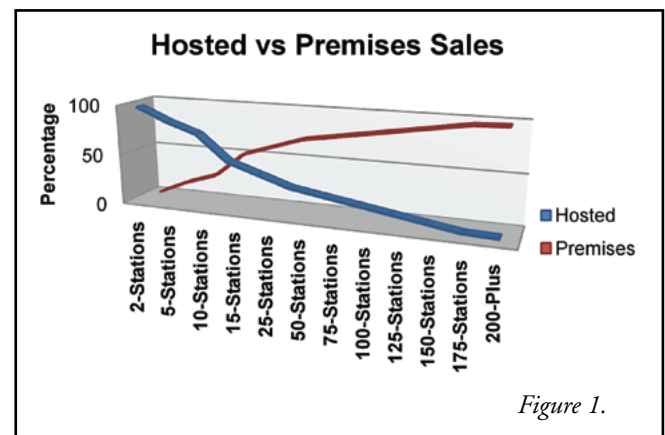


Figure 1.

www.tmcnet.com/2638.1

Colotraq Intros Contract-Free Telecom Expense Audit

Colotraq, a telecom-sourcing consultant, announced its telecom expense audit service would be offered without any contract or obligation to switch service providers.

The new audit service from Colotraq opens a window of savings opportunities for companies and improves operational efficiency in the aggravating market conditions. Telecom budgets for voice, wireless, hosting, bandwidth and network services represent significant savings opportunities. With the availability of more than 400 service providers covering over 1,300 markets in over 200 countries and territories, Colotraq is capable of offering competitive service to its customers.

"We expect the demand for telecom cost management services to explode and that our technical expertise, market knowledge, dedicated customer service and zero cost policy will establish us as a market leader," said Colotraq CEO, Dany Bouchédid.

www.tmcnet.com/2639.1

D-Link and NGT Partner to Offer Solution for Merging Traditional and VoIP Phone Lines

D-Link, an end-to-end computer network solutions provider for consumers and businesses and New Global Telecom, a provider of wholesale hosted and trunk-based VoIP solutions, have agreed to co-market phones and services using Microsoft Response Point to deliver an affordable, easy-to-use solution for merging traditional and VoIP phone lines.

NGT Digital Voice phone services will be paired with D-Link VoiceCenter phone systems. This will enable seamless merging of traditional phone systems with feature-rich, affordable VoIP services without requiring any telephony expertise. Targeted specifically at small business users requiring up to 50 phones and phone lines, companies claimed that this all-in-one phone solution can save up to 50% in communication costs.

"NGT and D-Link have a common goal — to make it easy to deliver phones and value-added services to the underserved small business market," stated John Guillaume, senior vice president of product and marketing at NGT.

www.ngt.com
www.dlink.com

www.tmcnet.com/2643.1

SIP Print Launches New Channel Partner Program for VoIP Call Recording Appliances

SIP Print has announced the launch of its newly established channel partner program. The SIP Print Partner Program (SIPPPP) is designed to provide partners with high margins, and features simplicity and ease-of-entry for telephony resellers and data VARS that primarily serve small to medium-sized businesses (SMBs).

The program aims to simplify selling SIP Print's VoIP call recording appliances in combination with IP-based phone systems. As a channel-focused organization, SIP Print does not sell direct or through small business solutions in retail outlets. The company actively seeks value-added distributors (VADs), VARs and DMRs (direct market resellers) to participate in its national roll-out. SIP Print offers appliances that provide full functionality for SIP-enabled systems and systems using SIP trunks or a SIP interface on hybrid phone systems. These appliances are compatible with many of today's innovative systems, such as Allworx, Astralink, Altigen, Avaya IP Office, Avaya Distributed Office, Cisco, Fonality, Mitel and others.

www.sipprint.com

www.tmcnet.com/2640.1

AB&T Telecom Joins Broadview Networks as Master Agent

Broadview Networks, a business communications provider, announced that AB&T Telecom has signed a Master Agency agreement to offer Broadview's comprehensive line of voice, data, security and other related services through its national network of technology partners. AB&T is an established Maryland-based agency that provides telecommunications, IT and field tech services to business and government customers throughout the United States.

"AB&T has a solid history of servicing businesses of all sizes and we're pleased to have them onboard as an Agent Partner," said Robert Westervelt, Vice President of Alternate Channels for Broadview Networks. "Broadview enhances AB&T's offering with a comprehensive portfolio of customizable products, services and tools that provides customers with the total solution. Whether it's our core voice or data services or next-generation solutions like hosted VoIP, colo-

cation, Ethernet, or SIP trunking, AB&T can create real value by offering its business customers the total solution."

www.broadviewnet.com/agent

www.tmcnet.com/2641.1

LiveVox Announces 50% Increase in IT Capacity

LiveVox has announced that the company has continued investment into its information technology infrastructure. The company is looking to maintain its customer reliability and has increased its capacity by more than 50% in the last six months. The company has said that it has enough computing capacity to cater to current and future client demands.

LiveVox says its hosted-dialing services provide its clients with unlimited capacity, with higher quality and lower costs in comparison with premised-based or other hosted-dialing solutions. To increase its dialing capacity by more than 50%, the company has increased its investment in servers and other hardware. LiveVox says companies can now make greater number of calls using this improved infrastructure. The company is also working towards increasing agent efficiency. In October of this year, the company unveiled a real-time analytic tool that provides collections organizations a comprehensive view of dialing strategy effectiveness, agent accountability and productivity gains.

www.livevox.com

www.tmcnet.com/2642.1

DVX Earns Avaya "Mid Market" Credentials

Data Voice eXchange (DVX), a communications technology reseller, today announced that it has earned credentials from Avaya to sell and support Avaya IP telephony solutions for the mid-market.

The Avaya Mid Market Program for resellers, a new program being delivered through distributor Westcon Group, Inc., was developed to ensure that Avaya products and solutions are supported by qualified technology experts who are able to meet or exceed their expectations. The program culminates in nine months of study.

"This program provides the recognition resellers need so they can expand their skillsets to design and implement converged voice and data solutions," said Steve Bernard, vice

Talking with Robert Stegner, Senior Vice President, Marketing, North America, SYNnex Corporation

By: Richard “Zippy” Grigonis

In September 2007, Robert Stegner joined SYNnex, a major business process services company that distributes products from more than 100 world-class IT OEM suppliers to 15,000+ resellers in the U.S., Canada and Mexico. SYNnex also provides outsourcing services in IT distribution, contract assembly, logistics management and business process outsourcing. Stegner has over 18 years of progressive channel marketing/sales management experience. He most recently served as VP of Worldwide Market Development for Ingram Micro Inc.

Synnex was founded in 1980 by Bob Huang as COMPAC Microelectronics. It was originally a distributor to small and medium-sized VARs. The enormous MiTAC Corporation, Taiwan's largest “3C” (Computer, Communication, Consumer electronics) distributor with over 10,000 dealers, bought a majority stake in 1992 and the company changed its name to SYNnex Information Technologies, Inc. in 1994. In March, 1995, subsidiary distribution companies in Japan,

under the IBM Authorized Assembly Program. SYNnex again expanded its channel assembly offerings in August 1998, with the HP Vectra models, in addition to the HP Brio PCs. Indeed, Yours Truly once worked with an HP Vectra assembled at SYNnex, and I still own a mighty 7U high, 20-slot MCH-702 rackmount computer from MiTAC that I received in late 1999 shortly after I toured their Fremont, California headquarters and assembly plant. Shortly after that it was decided that there should be one brand name for the U.S. market, and so the product names were switched over to the SYNnex brand.

Today the company, known as SYNnex Corporation, distributes products in categories such as IT systems, peripherals, system components, software and networking. Their key suppliers include HP, IBM, Intel, Seagate, Microsoft, Lenovo and many other famous manufacturers. SYNnex has 13 distribution centers, situated strategically throughout the U.S. In 2007, their consolidated worldwide revenue was \$7.0 billion.

“[SYNnex] Technology Experts assist the VAR with pricing, proof of concept, and connecting to the appropriate vendor resource, determining market positioning, education and help mask the complexity of understanding the solution and manufacturer.”

Mexico and the U.K. were established to expand SYNnex's international operations. In 1996 the Eastern U.S. sales office appeared in Greenville, South Carolina. In April 1998, SYNnex began assembling IBM PC workstations, notebooks, and servers

I recently caught up with Bob Stegner of SYNnex and discussed the challenge of offering solutions in a world of converging communications.

RG: Does the SYNnex Converged Solutions Group offer a “one-stop



shop” environment and any “hand-holding” services?

RS: Yes, at SYNnex, we design, complete and integrate solutions with demonstrated success in business development and market share growth. We perform services that can supplement VAR programs and capabilities. We create the right opportunities that empower our partners. We cultivate personal relationships that nurture and build your business.

Our Technology Experts assist the VAR with pricing, proof of concept, and connecting to the appropriate vendor resource, determining market positioning, education and help mask the complexity of understanding the solution and manufacturer.

RG: Are convergence solutions more difficult to deal with than older circuit-switched/computer telephony solutions?

RS: SYNnex feels that the answer to this question is mixed. On one hand, it makes total sense to simply treat voice as another form of data, and provide one, seamless, converged network. The cost of transporting data declines as volumes increase, and Quality of Service (QoS) ques-

tions are being answered. Data Network Vendors and PC Applications Providers have been driving convergence very heavily, as evidenced by industry leaders such as Microsoft and Cisco. Even traditional telecom vendors have added momentum to this space, mostly through the acquisition of VoIP technologies. The amount of momentum and focus that is being placed on convergence will make converged solutions less and less difficult over time, and as the technology is fully embraced by mainstream business. However, it has long been understood that converged solutions do not start from a “clean slate”. Traditional telephony companies have made significant investments in the circuit-switched infrastructure. Much of their revenue stream is tied tightly to that same infrastructure. This has caused the most difficulty, when deploying converged solutions: integration upon an older circuit-switched/computer telephony solution, while trying to move to a truly converged data and voice network. This transition period of change has caused the most challenge, as all involved will scramble to move forward, while still holding on to their core base of business. As a result, we are currently seeing a large amount of “hybrid” voice solutions, which are bridging this evolution. As the traditional telephony vendors change, through acquisition and product development, they will meet up with the Data Network Vendors for a “cleaner” converged solution.

RG: Do you focus on small and medium sized organizations, or both?

RS: Both.

RG: Are convergence solutions a sizable part of your business?

RS: It's 40 percent of our total ICG [Integrated Communications Group] business. Of course, SYNnex offers many solutions, ranging from data to voice and network security products. Our Networking Business Unit focuses on telephony, networking, storage, and mobile solutions, and provides everything from development support to training to logistics management. Our converged communication solutions include IP telephony, PBX and key systems, VoIP, conferencing, collaboration, and telecom connectivity. Our team of networking specialists also provide various forms of services support such as site surveys, networks assessments, installation and implementation, wireless network installations, and so forth.

We have a huge team of experts who can design customized, scalable telephony solutions and converged VoIP and data systems to satisfy the customer needs of any reseller. Our Preferred Partner Program in this area is quite popular, since the participating partners gain access

to a broad range of training, sales support, and financial resources. We have relationships with ISVs who can create any application needed by a reseller's customer, and our integration services department that can outfit any product with customized settings and software. We can even provide training manuals and sales support, including lead generation, appointment setting, and pre- and post-sale consultations.

RG: Is security more of a concern with convergence technologies?

RS: Network security has always been an important customer concern. Organizations of all types and sizes are now subject to external attacks such as Denial of Service [DoS], phishing and other ingenious forms of disruption and intrusion. As convergence technologies such as VoIP become commonplace even for SMBs, everyone now realizes that they must come to grips with the need to deploy such things as hardware and software firewalls, VPNs, and intrusion detection and prevention systems to combat any possible threat to their business. Fortunately, our experts at SYNnex can

“SYNnex offers many solutions, ranging from data to voice and network security products. Our Networking Business Unit focuses on telephony, networking, storage, and mobile solutions... Our converged communication solutions include IP telephony, PBX and key systems, VoIP, conferencing, collaboration, and telecom connectivity.”

custom-design high-quality, scalable, and affordable Network Security solutions. We have great expertise and a robust solutions portfolio involving network intrusion prevention, firewalls and gateway security, anti-SPAM and anti-spyware software, content filtering, patchwork messaging, secure routers and switches, network storage, and so forth.

RG: If a reseller wants to expand their convergence sales by dealing with SYNnex, who do they contact?

RS: For starters they can visit www.synnex.com/tsd. Keep in mind that we can customize complete and flexible financial packages so a reseller can take advantage of opportunities as they come along. And our experienced sales team loves to help OEMs and resellers achieve higher gross profit margins. **IT**

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

By: Peter Radizeski



Typical Situation

Typical Sales Situation: So I meet a prospective buyer. We exchange cards. A couple weeks later, he has a circuit needing to be quoted. We have a conversation.

It gets complicated. Next thing you know I am competing against the inside sales team and the Reseller.

So why is an Agent in a price war with the direct account exec? No idea, but it happens more and more. Who loses? The carrier usually. Why? Because they are losing margin with each pitch and counter pitch. At some point – like in the beginning – Siebel should flag that client and a floor should be established. That way the carrier makes a profit; the sales cycle doesn't spin out of control; and the conversation with the buyer can move beyond price to solutions and value.

Who else loses? The agent. Why? Usually direct can get lower than indirect. Also, the agent is spending a lot of time on a deal that may not close, but one that certainly has diminishing return.

I can understand it from a Buyer's perspective: get in a bidding war and I win. Short term, certainly. You win lower prices. Long term you get poorer service. Less profit equals less service. Period. The next time you want a deal, word is out. It's going to be the low price RFP bidding war again. Not everyone wants to get into that. As an agent it is a waste of my time and effort, because people only interested in price, are a PITA.

As an agent for 9 years, I provide value to my clients. One way is as their advocate to the carrier – if they have billing, provisioning, or other issues that need resolution. In provisioning, I interface with the carrier and coordinate the installation times with all parties – hardware vendor, buyer, tech guy, carrier and installer. Another way is in the information I provide – beyond who the carriers are that I can quote. Maybe I need to do a better job with messaging this to avoid the Price War later. **IT**

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



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<http://internetcommunications.tmcnet.com>

CommuniGate Systems develops carrier-class Unified Communications and media delivery software for broadband and mobile operators to deliver value-added services and SaaS solutions. CommuniGate Systems delivers powerful mashups of Unified Communications technology mixed with media and entertainment applications for portals, social networks, enterprises and mobile communities. CommuniGate Systems is revolutionizing the Unified Communications industry with a unique Flash-based client framework Pronto! bringing together all forms of communication and breaking the leash to the desktop with Web 2.0 mobility.

CommuniGate Systems is the first choice in technology solutions for over 12,000 customers with over 130 million subscribers unifying e-mail, collaboration, IM, presence and VoIP with a single identity. The Unified Communications platform provides flexibility, performance, and scalability with benchmark proven architecture remaining unchallenged in the industry.

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ITEXPO East 2009 – the Gold on the Gold Coast

Celebrating its 10th anniversary, INTERNET TELEPHONY Conference & EXPO East will be held February 2-4, 2009 at the Miami Beach Convention Center.

Traditionally, expos are about lead generation, not sales. Instead of wandering around the country chasing down cold call leads, a great expo event brings a target market directly to booths manned by eager vendors. ITEXPO is such a preeminent event, specializing in the world of advanced IP Communications. Exhibitors know what kind of buyer they want to reach — and you can find a constant stream of such people coursing through the ITEXPO Exhibit Hall. Whereas some of our now-extinct competitors merely drew a national audience, ITEXPO also attracts a sizeable worldwide participation, reflecting a diverse geographical audience for our magazines and immensely popular website. We love to hold ITEXPO East at the Miami Convention Center since our South American exhibitors and attendees find travelling to Miami quite convenient. For U.S. attendees, it's a bit like attending a foreign show without leaving American soil.

But whether you're arriving from Sao Paulo, London, Berlin, or New York, you soon realize that ITEXPO is actually much more than a place where vendors and service providers schmooze with their prospects and qualify them on the exhibit floor. ITEXPO's conference also happens to be the best educational resource in the telecom industry. Presenters at ITEXPO's commercial-free sessions are not allowed to deliver company pitches, giving you an unbiased learning experience. Each topic and presenter is hand-selected from hundreds of candidates by Greg Galitzine, Editorial Director of our magazines and website, along with Rich Tehrani, TMC's President and Group Editor-in-Chief. They ensure that only the best and most relevant sessions make it on the program at ITEXPO, delivered by some of the greatest veterans in our industry.

Our conference agenda includes sessions on just about every topic you can think of: Unified Communications, Enterprise Solutions, Service Provider Solutions, Call Centers, Collaboration, Regulatory Matters and even a full-day course on Microsoft's new Office Communications Server. (All attendees are eligible to receive a certification for completing this particular course.) And don't forget to take a look at our "TMC University" classes on IP Network Security. It's a startling fact that real-time IP technologies and VoIP infrastructure elements that underlie UC provide many new inroads for criminal attackers



(both inside and outside the enterprise) and unwitting bearers of malware. Come see how to prevent and/or defeat the growing number of assaults on the world's real-time VoIP, instant messaging, video, and collaboration applications.

Furthermore, all attendees are invited to full-day workshops covering innovative and exciting areas of the telecom marketplace. Where else can you find a free workshop on SIP Trunking, a free Unified Communications Shootout, a free Reseller Solutions Day and a free Telecom Agent Day for channel agents and their partners to gather and hear some of the industry's leading speakers? (Yes, we've greatly expanded our coverage of resellers, distributors, agents and various other kinds of channel partners.)

In our effort to keep up with world events in communications technology, ITEXPO East now also houses the new 4G Wireless Evolution Conference. The 4GWE conference, as it's called, will help you discover key issues and challenges facing the evolution to a 4G, all IP, wireless network. This exciting collocated event will educate carriers and wireless industry professionals on the applications, technology alternatives, time frames, opportunities and challenges in the new age of mobile broadband. Fans of the imitable industry veteran Carl Ford will find him very much "on the scene" and heavily participating in this event.



Introducing the **IP-PBX Global Online Community**

If you are in the market looking to purchase a new phone system, chances are you'll be looking at an IP PBX. The IP PBX market has been growing steadily, which means there are a plethora of choices and options. And, with all the choices you face, it can get quite confusing.

The **IP PBX Global Online Community** is an excellent resource for companies and individuals who are facing the difficult decision of purchasing a new phone system. This community features breaking news, in-depth feature articles, case studies, links to white papers and webinars... all the information you need if you are charged with learning about the current state of the market and making a purchasing decision.

Featured on IP-PBX Community:

-  Real-World Case Studies
-  Breaking News
-  In-Depth Feature Articles
-  Expert Insight
-  Free Demos and Whitepapers

[HTTP://IP-PBX.TMCNET.COM](http://IP-PBX.TMCNET.COM)
Visit the IP PBX Global online community today.



Another new conference to be found at ITEXPO is Digium|Asterisk World, a conference that addresses “Everything Asterisk” for business users, resellers and executive decision-makers. Attendees will see at first hand how Asterisk, the world’s most popular open source telephony software, can save you money and empower you to create more flexible telephony solutions. You’ll also encounter many leading open source vendors in the Digium|Asterisk World pavilion on the ITEXPO show floor.

As if that weren’t enough, yet another special gathering appears this year at ITEXPO for the first time: Unified Communications and Service Provider Forum Panel Discussions. In this event, all attendees are invited to interactive sessions addressing key factors driving UC adoption and service provider opportunities for 2009 and beyond.

And Don’t Miss the Big Giveaway!

Perhaps the most exhilarating and enjoyable events at any ITEXPO is our “Big Giveaway” held at the conclusion of Exhibit Hall hours on the last day of the show (Wednesday, February 4th at 2:30 p.m.). This year we’ll be conducting a drawing for a 2009 Jeep Wrangler. You just have to come and visit the Exhibit Hall, picking up your entry card at the registration counter when you arrive. You then visit each booth listed on the card, review their offerings, and receive a stamp from each booth. Finally, you collect

all the stamps, then drop your completed card into the entry bin in the Exhibit Hall. Needless to say, you must be present at the drawing on Wednesday, February 4th at 2:30 p.m. to claim your fantastic prize.

It’s All Here

With the explosion in popularity of the Internet, some trade shows and expos suffered a decline in popularity and foot traffic. Indeed, our lesser competitors quickly fell by the wayside. But if you attended our previous show in Los Angeles (ITEXPO West 2008), you know without a doubt that ITEXPO remains the grandest of all IP-centric events that pulls in exhibitors and attendees from around the world. It’s the place where everyone from buyers and sellers to developers, industry analysts and venture capitalists can get up close and personal.

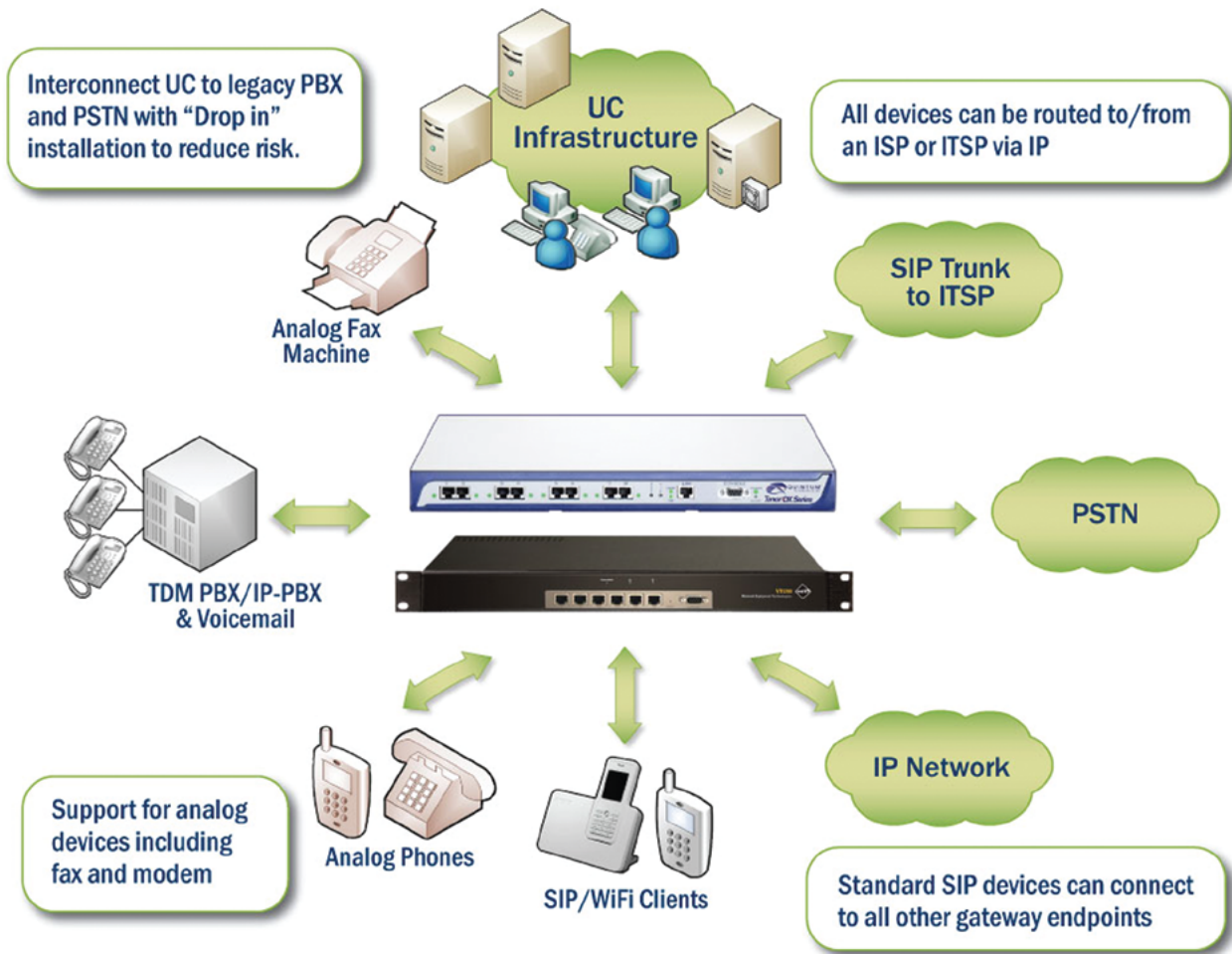
So, come to ITEXPO East in Miami. It’s the best three-day investment you can make in terms of learning, networking and checking out the latest and most productivity-enhancing communications technologies.

Just remember to bring a comfortable pair of shoes – it’s a big Exhibit Hall. **IT**

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



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.

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



By: Gary Kim



www.tmcnet.com/2602.1

Mobile Handset Sales Slow, But Still Positive

Worldwide sales of mobile phones to end-users reached more than 309 million units in the third quarter of 2008, a six percent increase compared to the third quarter of 2007, according to [Gartner](#), Inc. That's less than half the 16 percent growth rate seen in 2007.

That's not a direct driver of mobile subscriptions, since much of the mobile handset market consists of replacement devices. [Nokia](#), for example, sold 118 million phones in the third quarter of 2008, the first quarter of the year in which Nokia felt the negative effects of the current economic climate, says Carolina Milanesi, Gartner research director.

Lower replacement sales in mature and emerging markets were a large part of the reason.

Nokia suffered in what it called the "converged devices" segment. However, analysts said Nokia should be able to marginally improve its share in the fourth quarter of 2008 as its new devices come to market, and the holiday season helps to increase overall sales. Nokia remains best-positioned to deal with the current market conditions because of its economies of scale.

LG might make gains, though. "Its portfolio remains well-positioned to take advantage of the seasonality in the fourth quarter of 2008 as its pricing is more suited to the current economic climate," says Milanesi.

Sales of mobile handsets in Asia/Pacific also increased despite economic pressure and weak consumer confidence, with sales of 116.7 million units in the third quarter of 2008, a 13.8 percent increase year-on-year. However, replacement cycles increased from four to eight months, resulting in either a decline or almost flat sales in mature markets like Singapore, Hong Kong, Taiwan, Korea, and Australia where operators are moving away from subsidies and pushing for longer contract periods in an attempt to generate revenue.

Sales in emerging markets like India and China rose due to strong sales to first-time buyers. "We expect the global economic decline and associated drop in disposable incomes to make sales in the region almost flat during the fourth quarter of 2008," said Anshul Gupta, principal research analyst for mobile terminals at Gartner, based in Mumbai, India.

Sales in Eastern Europe, the Middle East and Africa reached 57.8 million units in the third quarter of 2008, representing an increase of 13.1 percent year-on-year. Several countries in Eastern Europe, including Russia, Hungary, Ukraine and Romania, were hit hard by the financial crisis toward the end of the quarter, but this did not translate into a large downturn in the devices market. "Emerging markets, especially in Africa, continued to display healthy growth," says Annette Zimmermann, Gartner senior research analyst.

In Japan, sales to end users reached 9.4 million units in the third quarter of 2008, a decrease of 28 percent year-on-year. This was exactly the same volume of sales reached in the second quarter of 2008. "Consumers showed little interest in upgrading their existing devices and when they did, they tended to purchase standard models rather than high-end ones with the latest functions," said Atsuro Sato, research analyst at Gartner, based in Tokyo, Japan.

Global economic uncertainties also affected sales of mobile handsets in Latin America during the third quarter of 2008, with volumes growing 5.5 percent year-on-year. "3G promotions have contributed to subscriber growth, however equipment sales have been largely data cards instead of handsets. SIM-only sales have also increased significantly due to competition and regulation, such as Anatel in Brazil forcing operators to sell unlocked phones," said Tuong Nguyen, principal research analyst at Gartner, based in Arlington, Virginia, US.

The North American mobile handset market continued to grow as well. Sales to end users were 47 million units in the third

quarter of 2008, a 4.5 percent increase over the previous year. "Smartphones were a key driver of growth in the market, with models from Research In Motion's (RIM's) expanded portfolio and the 3G [Apple iPhone](#) proving especially popular," says Hughes De La Vergne, Gartner principal analyst.

The market in Western Europe reached 43.5 million units in the third quarter of 2008, but was below the 47.2 million units registered during the same quarter in 2007. Replacement sales slowed as consumers dealt with the higher cost of living and being locked into 18- or 24-month contracts.

"In the UK, O2 and T-Mobile are offering consumers money off their tariff if they postpone upgrading their handsets until January 2009. This is an attempt to reduce subsidy costs and defer them to a new budget cycle, which is bad news for vendors and retailers," says Milanesi.

"We expect sales in 2009 to show a low single-digit growth contraction," says Milanesi.

Keep in mind that demand for mobile subscriptions is different from demand for mobile handsets. Subscriptions are less economically sensitive than devices.

Still, global consumers seem to indicate that mobile phones are essential even in an economic downturn. This implies that a mobile subscription (not the phone) is non-discretionary. That leads many of us to conclude that mobile subscriber numbers will not suffer during the recession.

However, what also should happen is that users delay service or feature upgrades and handset replacements. Lower average revenue per user, not the number of subscribers, is likely to be the bigger issue.

There is a greater than 50 percent chance of significant increases in subscriber churn as carriers attempt to hang on to economically stressed subscribers in increasingly commoditized emerging markets, though, Gartner suggests. This should cause pricing pressure, and hence lead to lower ARPU. **IT**



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www.tmcnet.com/2605.1

Mediatix Delivers Nortel Compatible VoIP Access Gateway



Mediatix Telecom has completed joint interoperability tests verifying the compatibility of Mediatix 4100 Series VoIP Access devices with Nortel's Communication Server 2100. The 4100 Series will now be part of Nortel's Select Product Program for North America, replacing the Mediatix 1104 and Mediatix 1124. Nortel has selected the Mediatix 4100 Series because it strategically complements the Nortel CS 2100 platforms, creating what the company called "significant value for its customers."

The interoperability events tested the Mediatix 4100 Series Analog VoIP Gateways, using MGCP, with Nortel's Release SE09 and SE10 for the CS 2100. With completion of this testing, the Mediatix 4100 Series is now interoperable and ready to be deployed with the Nortel CS 2100 platform.

www.mediatrix.com
www.nortel.com

www.tmcnet.com/2603.1

AVST Helps Companies Enhance Efficiency

Applied Voice & Speech Technologies, Inc. (AVST) a developer of enterprise communications solutions for businesses of all sizes is touting how companies can enhance efficiency and reduce human latency with the help of their CallXpress offering. According to company officials, CallXpress allows users to manage voice, fax, and e-mail messages from their desktops, laptops, PDAs, wired telephones, and cell phones.

AVST claims that CallXpress is the perfect solution to support the latest IP-PBX integrations and replace legacy voicemail systems. According to the company, CallXpress calls for minimal training as it provides features such as speedy implementation, simple administration and maintenance, and telephone user interface emulations.

www.avst.com

www.tmcnet.com/2604.1

Avaya Dials Up Speech to Text Solution for Voice Messages

Avaya recently announced a unified communications (UC) solution designed to let workers read their voice mail messages on their mobile devices or computers with a new speech to text solution. The new offering, a joint development of Avaya, Mutare Software and SpinVox, is hailed as solving the issue of retrieving voice messages when audio access poses a challenge.

Avaya Speech to Text converts voice mail message into a text format delivered as an email with an optional voice attachment. End-to-end security is provided for both formats of transmitted messages, text and audio attachment, with encryption applied from the voice mail box through all stages of the conversion process.

www.tmcnet.com/2607.1

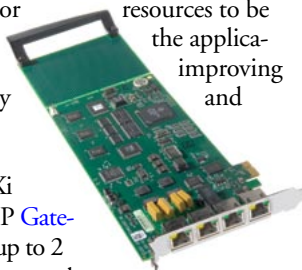
NET Quantum Showcases Intel-Based Application Platform Integration

Network Equipment Technologies, Inc. (NET) announced the integration of their Quantum Tenor DXi card with a Converged Application Platform (CAP) based on the Intel Celeron M Processor 370 operating at 1.5 GHz.

The CAP is designed to allow application developers and ISVs to quickly offer a variety of applications, such as unified communications and IP PBXs on a single appliance platform, and can run either Linux or Windows-based applications with an integrated VoIP capability. The Tenor DXi operates independently of the application processor, thus allowing all of the processor resources to be dedicated to the application, thus improving efficiency and reliability.

The Tenor DXi Integrated VoIP Gateway supports up to 2 T1/E1/PRI spans and up to 60 simultaneous VoIP calls. It is built as a full length PCI Express x1 Adapter Card and integrates all of the features and functions of the rest of the digital Tenor product line of VoIP switches and gateways.

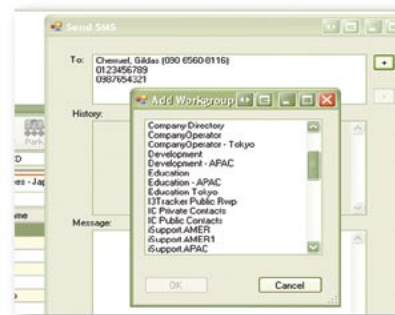
www.quantum.com
www.intel.com



www.tmcnet.com/2608.1

Interactive Intelligence Enables Gen-Y Customer Contacts with SMS

Interactive Intelligence, a global provider of unified IP business communications solutions, is adding short message service as an additional media type to its all-in-one multi-channel contact center software suite, Customer Interaction Center(R) (CIC).



The new SMS features are designed to help contact centers increase customer retention and satisfaction through the following by enabling mobile customers to use SMS to communicate with the contact center and have those SMS messages routed, recorded, and reported on the same way as other media types. The solution also allows contact center agents to reply using SMS and enables customer notifications to be sent via SMS as well.

www.inin.com

www.tmcnet.com/2606.1

Objectworld To Support Microsoft Server Solutions

Officials at Objectworld Communications Corp. say they can now help their company's partner and solution providers deliver an end-to-end, Windows-based business communications solution – all managed through Windows. The company's flagship offering, Objectworld UC Server, provides Windows-based telephony and legacy PBX integration, and company officials say it's now the only UC solution of its kind that's integrated with Microsoft's SBS and EBS (Essential Business Server; Small Business Server).

Objectworld officials say their solution deploys in 15 minutes per user; lowers total cost of ownership with simpler management; makes employees more productive; and integrates business communications and processes with corporate data.

www.objectworld.com

www.tmcnet.com/2616.1

Cisco ISR Powers Verizon's Managed Services

Cisco recently announced that managed service providers worldwide are leveraging its Empowered Branch platform featuring Cisco Integrated Services Routers (ISRs) in order to allow enterprise customers to drive innovation in their branches and simplify branch operations.



Verizon Business has deployed Cisco ISRs as part of its global managed service portfolio that now includes a total of 13 managed services certified by the Cisco Powered Program. The managed services range from unified communications to wide-area network (WAN) optimization, application acceleration, highly secure WAN connectivity, mobility and wireless local-area network (LAN) connectivity.

Cisco also noted that Verizon Business has deployed the 5 millionth Cisco ISR as part of a managed solution for Colgate-Palmolive Company. Colgate-Palmolive's new MPLS-based Private IP network links more than 80 locations using the Cisco ISRs.

www.tmcnet.com/2611.1

Huawei Helps Mobily Build its IP/MPLS Unified Core Network

Huawei Technologies has supplied six NetEngine 5000E ("NE5000E") core routers to Mobily, a mobile operator in Saudi Arabia, to help that operator successfully deploy an IP/MPLS unified core network. According to officials, Huawei provided the operator with total cost of ownership (TCO) savings and its customers with a better service experience.

The IP/MPLS unified core network deployment paves the way for fixed-mobile convergence (FMC) evolution for Mobily.

Huawei claims that their NE5000E is the industry's first 10Tbps switch capacity-based core router. The NE5000E reportedly reduces power consumption and TCO for operators by implementing green technologies.

www.huawei.com

www.mobily.com.sa

www.tmcnet.com/2610.1

Elion, Alcatel-Lucent Team On Triple-Play Services Management

Alcatel-Lucent recently teamed with Elion Enterprises Ltd., a major telecommunications provider in Estonia, to offer an improved triple play (voice, data and video) experience to Elion's customers. Alcatel-Lucent will deploy its home network management solution, providing streamlined and automated installation and customer support as well as sophisticated diagnostic information, to help Elion reduce its operational costs and improve the quality of experience for its subscribers.

The partnership is designed to allow Elion make good on aggressive plans to deliver next-generation services, as the operator drives widespread availability of triple play throughout Estonia. Alcatel-Lucent's digital life management solution for broadband services at home and on the move, based on the Home Device Manager, has been adopted by more than 40 service providers around the world.

www.elion.com

www.alcatel-lucent.com

www.tmcnet.com/2612.1

Spirent Intros New Security Testing Solution

Spirent Communications has announced the launch of the Spirent Avalanche/290, a portable load testing solution designed to allow corporate IT managers to "characterize" their network prior to deployment. The characterization of a network before deployment ensures that it meets various security, capacity, performance and end-user Quality of Experience (QoE) demands.

The goal of such an offering, officials said, is to give companies a better understanding and analysis of the risk associated with a network upgrade before delivering a new service. The Spirent Avalanche/290 enables network managers to comprehensively test Layer 4-7 application traffic at various points in their network.

The solution simulates up to 250,000 users and line rate Gigabit Ethernet Layer 4-7 traffic. In addition, as a standalone unit, it can stimulate both real world clients and servers without requiring additional equipment.

www.spirent.com

www.tmcnet.com/2613.1

Mavenir, GetLisa Offer Messaging Solution to Regional Wireless Carriers

Under a recent strategic partnership, Mavenir Systems, Inc., and GetLisa Information Services have announced they will provide complete messaging and data services for the Tier 2 and Tier 3 wireless carrier market. GetLisa is a mobile media company providing data solutions to wireless service providers throughout North America. Mavenir provides convergence solutions that allow mobile operators to offer subscribers new and enhanced services and applications.

The turnkey Mavenir/GetLisa offering is completely scalable and can be customized to address different needs. According to company officials, this new solution represents a complete data solution for regional carriers encompassing SMSC, VoIP, WAP and MMSC platforms, as well as premium content and unique local content applications.

www.mavenir.com

www.getlisa.com

www.tmcnet.com/2614.1

Starhome Upgrades Service Broker Solution for IMS

Starhome, a provider of roaming services and converged solutions for mobile network operators, has released an improved version of its Service Broker Solution. Starhome's technology is designed to support IMS and SCIM functionality, which will help mobile operators integrate their future and existing IMS and Intelligent Network applications to provide multiple services to their customer based. The new technology interoperates with IP Centrex and SIP-Based VoIP services and supports multiple protocol variants including ETSI INAP, Siemens, Nokia, Ericsson and 3GPP CAMEL, and the company claims that the solution can be integrated with any type of network.

According to Amir Bar-El, vice president of research and development and products for Starhome, "As operators increasingly adopt IMS applications while continuing to maintain their IN legacy systems, we believe our Service Broker, with its user-friendly and innovative service creation environment, will become essential for minimizing network complexity and maximizing network efficiency."

www.starhome.com

www.tmcnet.com/2617.1

RIM Rolls Out Storm

Research in Motion has rolled out its highly anticipated **BlackBerry Storm**. The latest "must-have" device from RIM, the BlackBerry Storm offers an innovative tactile touchscreen that will actually depress slightly when the screen is pressed. As a result, the user can feel the screen being pressed and released with a "click" giving the same feel as a physical keyboard or button on a mouse.

The device offers many of the familiar navigation keys common to other BlackBerry smartphones, as well as support for multi-touch, taps, slides and other touchscreen gestures. Such features allow the user to easily highlight, scroll, pan and zoom for smooth navigation. The Storm also offers a built-in accelerometer that allows the touchscreen to automatically switch between landscape mode and portrait mode as the user simply rotates the handset.

Storm also offers a 3.2-megapixel camera with variable zoom, autofocus and a flash to provide continuous lighting when recording video. Built-in GPS is provided to support location-based applications and services.

www.rim.com

www.tmcnet.com/2618.1

Nimbuzz Launches Into App Store as Free iPhone App

Nimbuzz, a social interaction service combining presence, instant messaging (IM), and voice over Internet Protocol (VoIP) has been launched as a free application for Apple iPhone. Available through Apple's App Store, the new application allows users to call, chat and send messages to their friends on all major instant messaging services and social networks for free.



The service is available on popular communities such as Skype, Yahoo! Messenger, Facebook, MySpace, AIM, Windows Live Messenger, Google Talk, ICQ, Jabber, and others.

According to Nimbuzz, the new application is the first complete messaging product available with landscape mode chat, IM buddy calling over WiFi to Yahoo! Messenger, Google Talk, Skype, and Windows Live Mes-

senger. The application also features a centralized contact list that aggregates contacts of the most popular social and IM networks.

www.nimbuzz.com

www.tmcnet.com/2619.1

Alltel Wireless, mFoundry in Mobile Banking Pact

Alltel Wireless has announced that it will be leveraging mFoundry's mobile wallet platform to develop a new mobile banking service, the Alltel Wallet.

Providing a consolidated mobile banking experience, the Alltel Wallet was conceived to give its customers access to a variety of U.S. financial institutions. With mFoundry's technology, which combines mobile banking, mobile payments and mobile commerce capabilities, Alltel gains the necessary platform to plug in advanced financial solutions and other innovative functionalities from select third-party developers.

mFoundry's mobile financial services platform is based upon Mojax technology, which has gained industry recognition for its mobile development toolset. With pre-built modules for peer-to-peer remittances and other payment services, mFoundry's mobile wallet platform enables developers to quickly and easily deploy new features. The Alltel Wallet is set to become available in early 2009.

www.alltel.com
www.mfoundry.com

www.tmcnet.com/2620.1

USPTO Grants i2Telecom Patent

i2Telecom International, a developer of mobile applications and services, announced that it has received a patent from the U.S. Patent and Trademark Office (USPTO) involving its claims for Dynamically Adapting the Transmission Rate of Packets in Real-Time VoIP Communications to the Available Bandwidth (DMTR) technology.

The company says it is the most valuable patent it has been awarded to date and exceeds in value the patent that i2Telecom previously sold for \$6.5 million.

DMTR technology is used by a number of OEMs that deploy softphones, microgateway devices, gateways, routers or switches along with a number of carriers that use the technology to improve quality and

eliminate degradation issues when transmitting voice packets over the Internet.

www.i2telecom.com
www.uspto.gov

www.tmcnet.com/2621.1

Texas Instruments Offers New Technology to Accelerate Femtocell Deployments

Femtocell deployments around the world are hampered by the lack of proven technology. According to market intelligence agency iSuppli, volume shipments for femtocells could begin in 2010, if the existing technical challenges are met.

Texas Instruments (TI) officials say the company is now providing the necessary tools required for the femtocell deployment with its new high-performance, volume-based digital signal processor (DSP) solution. TI's new technology is currently shipping into femtocell products from Samsung, Airvana, Huawei, Lyrtech, ZTE and Airhop, the company said.

Jagdish Rebello, director and principal analyst with iSuppli, said, "The participation of a company like TI is needed to address cost models and deployment challenges facing the femtocell market. With its incumbent position in wireless infrastructure – across all air interfaces – they bring a tremendous amount of knowledge to this emerging market."

www.ti.com
www.isuppli.com

www.tmcnet.com/2622.1

RADWIN 2000 High-Capacity Solution Launched

RADWIN, a global provider of advanced wireless broadband solutions, has announced its portfolio for WiMAX backhaul. Addressing the needs of WiMAX operators and ISPs, the RADWIN 2000 High-Capacity solution provides 50 Mbps full-duplex net throughput with an extended range of up to 120 km/75 miles.

RADWIN 2000 combines advanced OFDM and MIMO technologies and an exceptional robust air interface. RADWIN 2000 has a unique Combo feature that helps it support multiple frequency bands, from 4.9 to 5.8GHz, on a single platform.

RADWIN has begun deploying the new solution in a number of large-scale WiMAX backhaul projects in India and Africa.

www.radwin.com

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www.tmcnet.com/2624.1

Veramark Lands TEM Services Contract from AAA Arizona

Veramark Technologies will provide call accounting, charge allocation and invoice management services AAA Arizona's telecom carrier bills. The New York-based Veramark said it expects to generate positive NET savings for AAA Arizona in the first year of the contract and a total return on investment of approximately 200 percent over the course of the three-year agreement.

"Telecom is a significant expense for most organizations," said Tony Mazzullo, Veramark president and CEO. "Our telecom expense management services can reduce these costs dramatically, which is especially valuable in today's economy."

Veramark's Telecom Expense Management platform is designed to manage telecommunication service expenses including voice, data, and wireless with a combination of software tools and manual auditing.

www.veramark.com

www.tmcnet.com/2625.1

Demand for Business Process Management Solutions at All-Time High

The global economic crisis is demanding an unprecedented level of business process agility, control and transparency from global markets, says Cordys, a next-generation business process management solutions specialist.

With the collapse of many large financial institutions, many companies are now looking at cost cutting program and mergers and acquisitions as last measures to save their businesses from sinking. These steps result in large-scale reorganization of businesses. There is a need for businesses today to innovate and adapt to the new situation extremely fast without being hampered by time-consuming and costly IT projects.

Business process management (BPM) solutions enable enterprises to adapt to change, market trends and evolving standards and regulatory requirements at a greatly reduced expense and time to market, notes Cordys. Cordys cites a market report from Gartner, which states that overall BPM market grew from \$1.229 billion in 2006 to \$1.692 billion in 2007. BPM solutions are taking a larger share of the overall application infrastructure market, showing an

increase of 37.7 percent year on year.

www.cordys.com

www.tmcnet.com/2626.1

Spb Software Intros New Wireless Data Usage Monitor for Windows Mobile

Spb Software announced the release of its Spb Wireless Monitor 3.0, a software solution designed to enable users to exercise more control over their wireless data spending.

The new Wireless Monitor gives users complete control over smartphone data connections by monitoring data traffic in accordance with configurable tariffs and data plans. The solution as well provides per application data traffic reports and as well calculates network usage costs according to the user's data plan, says the company.

The Spb Wireless Monitor 3.0 can support both touch and non-touch screen devices. It can also manage CDMA (code division multiple access), GPRS (general packet radio service), 3G, and even Wi-Fi and USB connections. It also features a modern, multilingual user interface like one-handed navigation and adaptive skins. It also has the capability to manage several connections simultaneously.

www.spbsoftwarehouse.com/

www.tmcnet.com/2627.1

S1 Enterprise Launching Version 3.7 for Financial Institutions

S1 Enterprise, a division of S1 Corporation and a global provider of customer interaction software solutions, has announced version 3.7 of its S1 Sales & Service, S1 Teller and S1 Call Center solutions. The new release is slated for the first quarter of 2009 and will allow financial institutions to control costs as well as remain agile through the simplification of customization while streamlining and automating future upgrades, S1 officials say.

An advanced software development kit is available in the version 3.7 application set. This SDK delivers an intuitive interface that allows the user to simply drag and drop screen elements with the resulting changes available immediately. The workflows and navigations behind the screens can also be tailored to a bank's unique processes through visual representations that depict how work moves through the enterprise.

www.s1enterprise.com

www.tmcnet.com/2628.1

Tangoe Earns AAFES Telecom Expense Management Contract

The Army & Air Force Exchange Service, or AAFES, reportedly has awarded a telecom expense management contract to Tangoe. The agreement requires the company to identify important saving opportunities by conducting a multi-phase audit of communications services and assets.

The initial phase of its new agreement will see Tangoe implementing CommCare Inventory Foundation service for AAFES. This includes a communications bill audit and mobile rate plan optimization. It also includes the creation of a consolidated fixed and mobile communications inventory. In this phase, AAFES will save money getting rid of services not used, improved carrier contracts, the elimination of process disorganization and waste, and the collecting overcharge credits.

AAFES operates in more than 3,000 facilities in 30 countries. The organization is a joint military entity with approximately \$50 million to \$90 million in annual telecom expenses.

www.tangoe.com

www.tmcnet.com/2629.1

RadiusPoint, SMS Ink Telecom Expense Management Contract

RadiusPoint has signed a new contract with SMS Holdings Inc. to provide Telecom Expense Management services. Under the contract Memphis-based RadiusPoint will manage the telecoms invoices and expenses for SMS' locations. RadiusPoint provides services such as Business Process Outsourcing, Software as a Service, and License Software to companies involved in Telecom, Utility, Energy and IT invoice and expenses.

Under the new deal, RadiusPoint will provide invoice processing and telecom expense management services. These will include management of the vendor to ensure accuracy as well as management of the invoice from receipt to invoice verification and then archival of the invoice image for future requirements. Contract compliance reviews on a monthly basis and error detection and reconciliation will also be provided, RadiusPoint officials say.

www.radiuspoint.com

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Talking with Gary Johnson, President & CEO, Ring Carrier

By: Richard “Zippy” Grigonis

Gary Johnson, employee #31 at Tandem Computers in the late 1970s, later worked for Convergent Technologies (now [Unisys](#)), and from there he went to direct worldwide OEM sales at SCO for about five years, riding through IPOs along the way. He ran Berkeley Software Design (BSDi) as CEO for about six years, then sold the company to Wind River. Later he ran [ClickSoftware](#), which offers a big scheduling application for the likes of telco field guys, brought them public and “retired” for a few years, during which time he hatched a few companies. He then served as SVP of Marketing and Sales at Procera Networks until a few months ago when he took up the reins of Ring Carrier.



RG: Tell me how Ring Carrier (www.ringcarrier.com) enables service providers to quickly deploy “white label” virtual Asterisk PBX services?

GJ: We’re now shipping our Ring Carrier Managed Virtual VoIP (MV2) product line, which is based on the Ring CarrierVoIP Fabric that provides highly scalable virtualization for VoIP services, PBXs and call centers. It allows you to host VoIP services and it combines servers, storage and networking into a single system. Ring Carrier providers can use our Fabric Manager to create on top of the VoIP Fabric what we call Building Blocks. Each Block is configured using our Management GUI and each Block can be used to create an independent virtual system, such as a PBX or a call center. Each business or enterprise can be allocated their own building block. Customers can even work with the Building Blocks themselves, plus there is an end user Management GUI. That is, once the provider or the customer builds a PBX, say, there’s a control panel for it. You can use that control panel to add extensions or users to the PBX. There’s even another interface that allows the

users who have extensions to take care of themselves on that PBX.

With our product you can handle more than one physical location — you could have servers in San Diego, New York and Singapore and manage them all from one interface. You just pick a switch, a co-location, and you can create a new Building Block merely by selecting a template, such as a PBX. You just give it a name, tell the system where you want the Building Block stored — we recommend Network Attached Storage [NAS] obviously — and an IP address. The system will then go off and in about 70 seconds create a new running PBX. Each of these created PBXs runs the well-known open source PBX, Asterisk. It used to take about a full day to start with bare iron, install an operating system, install Asterisk and configure it for users. When using our system, you can create a new virtual Asterisk PBX about every 70 seconds. The system takes the template you select and creates the new Building Block, which is the Asterisk PBX. After creating the new PBX you can use our interface to change the root password so you can log onto it, and then start it up in a

few seconds. Presto, you have a new running Asterisk PBX.

There’s a vast economy of scale here because, depending on the server, you can run anywhere from 20 to 40 virtual PBXs on a single server, or you can scale up to thousands of Building Blocks using multiple servers. Once you create a PBX Block, you can use the interface to that specific PBX to easily do Adds, Moves and Changes, and to create an auto-attendant.

RG: What about call centers?

GJ: I should mention that a separate dedicated hardware VoIP [Gateway](#) connects with the PSTN and VoIP. The VoIP Gateway offloads transcoding from the PBX Building Block and queuing from a Call Center Building Block. This enables you to scale your system up and reduces costs. We also offer an optional Enterprise VoIP Appliance, which is a combination router, firewall and gateway. It includes NAT repair, QoS, least cost routing T1 connectivity, and network fault detection and diagnostics. **IT**

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

www.tmcnet.com/2631.1

Sangoma's New Analog Voice Cards

Sangoma Technologies has introduced a new line of B600 analog voice cards, designed for customers who do not require a modular card. The B600 cards include four ports of FXO and a single FXS port, and also features support for a fax and four simultaneous calls. In addition, these voice cards also offer Wanpipe high-end system diagnostics. Company officials said the two voice cards in this series, the B600D and the B600DE, provide Telco-Grade DSP hardware echo cancellation on all channels and eliminate the need for additional CPU load at minimal extra costs.

The latest offering includes support for Asterisk, FreeSWITCH, Yate, trixbox, and PBX/IVR projects, as well as other open source and proprietary PBX, Switch, IVR, as well as VoIP gateway applications and a single synchronous PCI interface for all ports. The B600 analog voice cards include both standard and short half-height compatible mounting clips for installation in 2U rack-mount servers, autosense compatibility with 5 V and 3.3 V PCI busses, and more.

www.sangoma.com

www.tmcnet.com/2635.1

Opera Mini Releases Version 4.2

Opera Software has released the final version of its Opera Mini 4.2 for mobile phones. Company officials claim trials show this version gives more than 30 percent speed improvements for users in the U.S., due to the addition of a new Opera Mini server park in the United States.



Jon von Tetzchner, CEO, Opera Software says their support of the [Android](#) platform “helps fulfill our mission to be available on more platforms, for more devices and reach more users, anywhere in the world.”

Opera Mini 4.2 adds more language versions and skin selections. Languages include the recently added Amharic, Armenian, Assamese, Bengali, Gujarati, Kannada, Kirghiz, Lingala, Marathi, Malayalam, Mongolian, Oriya, Punjabi, Pashto, Sinhala, Tajik, Tamil, Telugu, Urdu, Uzbek, Khmer, Kashmiri, Lao and Turkmen.

www.opera.com/mini

www.tmcnet.com/2634.1

PhoneFusion Intros Fusion Voicemail Plus for Android Smartphones

PhoneFusion, a hosted communications solutions provider, has released the Beta version of Fusion Voicemail Plus for Android-based smartphones.

PhoneFusion's Fusion Voicemail Plus service provides users the ability to centralize all of the voicemail boxes in the home, office and on mobiles to enable users to see the voice messages on the screen of any Android-powered mobile device. A tap of a button is needed to scroll, listen to, call back, respond with a text message and delete voicemails in the order of the choice.

The solution displays Caller ID Name on each voicemail, even if the information isn't already saved in the users' phonebooks. This information includes the date and time of the voicemail along with the caller's information.

www.fusionvoicemailplus.com

www.tmcnet.com/2632.1

Zyrist Launches Web Platform for Professionals

Zyrist, a free platform for the development, generation and commercialization of intellectual assets, has introduced its new Web platform, which provides professionals and businesses with opportunities to collaborate with others around the world

The company announced the beta version of Zyrist earlier this year in October.

Arjun Anand, founder and CEO of Zyrist founded Zyrist with the aim of creating an “efficient” and “cost effective” platform for the generation, development and successful commercialization of intellectual assets including ideas, innovation, intellectual property and our expertise. In the near future, Anand said he expects Zyrist to further transform traditional innovation and commercialization models by leveraging concepts such as social media, social networking and Web 2.0.

www.zyrist.com

www.tmcnet.com/2633.1

OpenClinica Open Source Trials Software Downloaded More than 16,000 Times

Akaza Research has announced that the OpenClinica software for electronic data capture in clinical trials has been downloaded more than 16,000 times. Akaza Research previously announced that it had experienced 2,000 OpenClinica downloads as of August 2006. Today's announcement represents a growth of 700 percent since that time.

A growing number of organizations, including biotechnology firms, pharmaceutical companies, contract research organizations, academic health centers and government institutions have downloaded and adopted OpenClinica. Akaza Research takes the position that its professional open source approach is key to helping to facilitate widespread adoption. According to officials, “The professional support Akaza provides to adopters through our OpenClinica Enterprise solution helps speed implementation, ensure productivity success, and mitigate regulatory and business risk.”

www.akazaresearch.com

www.tmcnet.com/2636.1

Latest Version of Open Source Fedora Released

The Red Hat sponsored Fedora Project has released the latest version of its free open source operating system distribution, Fedora 10. Fedora is a Linux-based operating system, which is open source software that allows everyone to use, modify and distribute the software.

Fedora 10 features various technologies along with significant virtualization enhancements for local and remote installation and as well as management of storage provisioning. Red Hat said that the latest version of Fedora also features NetworkManager connection sharing. The latest version also features the premiere of a new graphical boot system called Plymouth. Designed by Fedora contributors, Plymouth was developed to speed up the system boot process by taking advantage of a new kernel mode setting feature. The Fedora 10 also features SecTool, which is a new security audit and intrusion detection system.

www.fedoraproject.org

Delivering Mobile Unified Communications

By Richard “Zippy” Grigonis

People these days are all agog over the productivity gains and enhanced customer experience benefits that Mobile Unified Communications (UC) can achieve. But some Small and Medium-sized Businesses (SMBs) are either struggling with installing and managing complex premise-based installations of cutting-edge UC systems involving mobility, or are too fearful to try. For them, hosted and/or managed services may be the answer, either from the carriers themselves or from mobile operator adjunct providers who can call upon advanced technologies such as Fixed-Mobile Convergence (FMC) and Software-as-a-Service (SaaS).



Take DiVitas Networks for example, founded in 2005, which started out of the gate with a pioneering dual-network enterprise-based telephony solution called the Mobile Convergence platform. The company offers version 2.0 of what's now called the DiVitas Mobile Unified Communications solution (DiVitas Mobile UC) that combines corporate voice and messaging applications (deskphone, contacts, IM, presence and push-to-talk) for businesses and infuses them into a single smartphone (such as Nokia Eseries and Nseries and Windows Mobile), thanks to a single piece of client software that co-exists on the phone. Mobile workers are now both easily accessible and can use their familiar tools and applications. Aside from native mobile voice and email, DiVitas adds the capabilities required to enable users to stay connected via their usual deskphone extension, anywhere at any time. As an open architecture, DiVitas Mobile UC can work with an organization's legacy telephony infrastructure, such as PBXs and mobile networks. DiVitas is supported on Alcatel, Avaya, Asterisk, Cisco, Mitel, Nortel, Siemens, ShoreTel, and Zultys PBX systems. And DiVitas claims its solution is unique in that it will work with any mobile operator in the world.

Furthermore, DiVitas' interesting Dual Persona feature enables you to house both a business number that is completely separate from your personal cellular number which ships native with the phone.

Aside from its traditional enterprise model, DiVitas Mobile UC is now available as a hosted service option that can be deployed by carriers to distinguish themselves from their competitors. Recently, for example, Hartford, Connecticut-based Sawtel, Inc., a VoIP carrier that sells advanced wireless

connectivity solutions to institutions and businesses in emerging markets, began using DiVitas as the mobility component to complete its UC services offering. Sawtel chose DiVitas after two years of researching the market.

“Mobile UC is a game-changing technology for our customers,” said Eric Asare, CTO for Sawtel. “It offers new productivity applications and expense-reducing technology — so our customers can work more efficiently and still lower their telecommunications costs. Our initial deployment in a twin 24-story high-rise building in Hartford is just the first step in what will be a global rollout of DiVitas Networks solution.”

iPhone Meets SaaS

Instilling the magic of Mobile UC into an existing mobile smart phone sounds daunting. To make it painless, it should ideally be a software-centric solution. Fortunately, CommuniGate Systems, the masters of Flex / Flash programming and a leader in carrier-class Mobile UC, offers the CommuniGate Pro Mobility Suite, which enables network operators to provide UC as a SaaS solution for SMBs. The flagship CommuniGate Pro product is a high density solution that's based upon a multi-tenant and a dynamic clustering architecture. It offers friendly live change management features for SaaS providers, and enables providers to offer business class services with costs that decline as virtualized client volume increases.

Recently, for example, CommuniGate Systems demonstrated how broadband and mobile network operators could bring Mobile UC to the iPhone 3G via simple turnkey package that doesn't require any premises-based equipment. Two functions



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Open Source Telephony is taking the world by storm.

The Asterisk Global Online Community — sponsored by Digium and powered by TMCnet — is designed to serve as the information hub for the exciting world of Open Source Telephony based on Asterisk.

This online community features the latest information concerning Asterisk and Open Source Telephony and how it applies to enterprise communications.

The community showcases daily content updates highlighting:

- * Feature stories
- * Breaking news
- * Whitepapers
- * Case studies
- * Tutorials
- * Asterisk Developer Blog

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

<http://asterisk.tmcnet.com>

Powered by:



enable the new iPhone 3G to synchronize localized data for a wide range of services: firstly, the third generation of wireless communication UMTS (3GSM) and secondly, the built-in standard of data synchronization called AirSync. The CommuniGate Pro Mobility Suite delivers native AirSync with full Over the Air push email, calendar and contact information with advanced security features. Business Subscribers

CommuniGate Pro's Mobility Suite with AirSync offers complete push services as well as a secure synchronization between PIM data, a mobile device and the CommuniGate Pro UC platform. Access to the mobility features is done via mobile operator networks including 3G and EDGE, and of course at the office or home on WiFi networks.

can always stay in contact with their office regardless of their location. An admin can simply snap on AirSync without the need to install any software on the iPhone. Business clients can now receive emails, contact and calendar updates onto their iPhone over the air via CommuniGate Pro's platform. Moreover, users can access this same information simultaneously, whether they're running on a Mac, a PC or on Linux with the CommuniGate Pronto! flexible Flash-based UC client that will accept third-party plug-ins.

Of course, CommuniGate Pro's Mobility Suite doesn't just work with Apple's iPhone 3G – it's compatible with all Windows Mobile-based and ActiveSync-capable devices including Symbian OS-capable mobile phones, DataViz devices that uses RoadSync, the Sony Ericsson P900, M600 and W950, the Nokia E series, Motorola devices that use MOTOSYNC, the Palm 700 smart phone series, Treo 680, Treo 650, LifeDrive and the Helio Ocean.

CommuniGate Pro's Mobility Suite with AirSync offers complete push services as well as a secure synchronization between PIM (Personal Information Management) data, a mobile device and the CommuniGate Pro Unified Communications platform. Access to the mobility features is done via mobile operator networks including 3G and EDGE, and of course at the office or home on WiFi networks. You can even try CommuniGate Systems' ingenious Flash-based Web 2.0 client Pronto! (including mobility with AirSync) free of charge at www.TalktoIP.com.

SoftPhone as Mobile Office

It's not surprising that many Mobile UC clients for phones and laptops have evolved under the familiar and intuitive user interface paradigm of the softphone. CounterPath Corporation, for example, offers the eyeBeam softphone that's private-branded by carriers, sold as a standalone package and even distributed for free in a limited-feature version called X-Lite. CounterPath customers include AT&T, Verizon, Cisco, BT, Deutsche Telekom, Mitel and Nortel.

Global Crossing, a world-class IP solutions provider, recently selected a customized version of CounterPath's eyeBeam softphone as part of its market offering in South America. CounterPath's IP telephony softphone enables enterprise workers to use their PC to access their full suite of corporate telephony services – including voice, video and Instant Messaging features – from any broadband connection in the world. The eyeBeam softphone even integrates with the Global Crossing Ready-Access conferencing service, a hosted, on-demand audio and web conferencing solution that targets distributed knowledge workers. While in a Ready-Access conference, the moderator can mute participants, lock the conference, dial-out to additional participants and record the call, all from a visual panel within the softphone.

Whereas the eyeBeam 1.5 softphone uses a familiar-looking dialpad-centric user interface that looks and feels like a regular phone, CounterPath's newest softphone application – called Bria – features a contact-centric interface which is “address book-centric” and allows for many personal preferences. As we went to press, CounterPath announced that it had added an enterprise- and carrier-grade softphone for Microsoft Outlook and Outlook Exchange to Bria. Bria is imbued with presence status capability and facilitates VoIP and video-over-IP calls by allowing users to determine when people on the contact list are available and instant messages can be sent. The Bria Add-In boosts Microsoft Outlook's capabilities without the auspices of the Microsoft Office Communications Server (OCS). The Bria Professional version offers additional business features for the enterprise or business user such as provisioning and LDAP integration. CounterPath will also soon add Quick Conference, an inexpensive meet-me audio conferencing feature, as a client for RIM BlackBerry, Symbian and Windows Mobile devices.

What makes all of this possible is CounterPath's Network Convergence Gateway (NCG), a carrier-based, core network, FMC server that bridges broadband and mobile networks in both pre-IMS and IMS environments. Using

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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.



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the NCG, service providers can extend single-number mobile voice, text, multimedia messaging and video services to residential, corporate and hotspot locations with broadband access. This is done via SIP on a service provider's existing networks while they prepare for the upcoming IMS (IP Multimedia Subsystem) common service architecture.

Other operators who don't want to wait for IMS to achieve some sort of FMC can try Unlicensed Mobile Access (UMA), which is the commercial name of the 3GPP Generic Access Network (GAN) standard. GAN can also extend mobile services voice, data and IMS/SIP (Session Initiation Protocol) over IP access networks as (typically) a dual-mode handset service wherein subscribers seamlessly roam and handover between LANs and WANs using a GSM/WiFi dual-mode mobile phone.

Kineto Wireless has been the principal innovator and proponent of UMA for mobile operators. Kineto recently announced that Westell Technologies, Inc., a leading vendor of broadband access products, has licensed their UMA/GAN client software for integration into UMA-based terminal adaptors and routers.

Kineto's software solutions for mobile infrastructure and device vendors can be used to develop products compliant with both the 3GPP UMA/GAN and upcoming HNB standards, including UMA Network Controllers, femto-gateways, dual-mode handsets, femtocells, terminal adaptors and "softmobiles". Kineto customers and partners include [NEC](#), Motorola, Samsung, LG Electronics, HTC, Qualcomm, Texas Instruments, Infineon, ST-NXP, [Linksys](#), Ubiquisys, Netgear and Westell.

UC Gets Social

NewStep Networks strives to make the UC communications convergence experience not just a matter of "any device, any place, any content" but also as personalized as possible. Their convergence applications are built on their advanced Converged Services Node (CSN) platform, which provides for session management of voice, video, and data communications and which supports a communications experience tailored specifically to every user's unique persona by leveraging all available presence, location, and behavior information to provide a consistent service across any device, access mechanism, or network.

NewSteps' solution does this by abstracting the user experience from the underlying network, and provides a consistent layer of service convergence features independent of the underlying access technology. The company covers both

consumer and enterprise markets, and they support various deployment models, including service provider hosted, enterprise site-based, and enterprise federated models. Their solutions can be deployed across fixed, mobile, enterprise and broadband networks, and in any environment including IMS, pre-IMS, Softswitch, Centrex, IP Centrex, TDM PBX, and IP PBX. Indeed, NewStep claims that their CSN is the first convergence solution capable of spanning the whole range of FMC access technologies, with support for VCC, Femtocells, WiMAX, and LTE.

In 2008 NewStep Networks incorporated a social networking communications framework into its CSN platform. Specifically, they developed a Facebook application that enables a converged click-to-call experience, providing user control over one's identity, social network, and communications channels. Similarly, NewStep's widgets for Yahoo!oneConnect and iGoogle bring convergence into a user's own personalized mobile or web portal, once again leveraging all available information (presence, location, behavior, etc.).

...operators who don't want to wait for IMS to achieve some sort of FMC can try Unlicensed Mobile Access (UMA), which is the commercial name of the 3GPP Generic Access Network (GAN) standard.

Converged Office, Converged Life

Founded in 2000, [Personeta](#) is able to ease the development and delivery of converged services for both businesses and consumers via its flagship product, TappS NSC, a standards-based service creation and execution platform that can deliver many kinds of segmented converged communication services over legacy and packet-based infrastructures.

On the business side of things, Personeta's Converged Office is a multi-layered, extensive set of services enabling service providers to offer various business communication solutions. Converged Office services can be offered simultaneously on multiple types of networks (IMS, VoIP

and SS7) and on any device. Services can be integrated with existing customer premise equipment, such as PBXs and IP-PBXs, or they can be fully hosted. Personeta's Converged Office solutions are now in production in all types of networks (mobile, cable, and fixed) and in all types of architecture (legacy, NGN, and IMS). The built-in provisioning tools for both service providers and business users are based on the latest in Web Services technology and include management interfaces such as Web and IVR portals. The platform's provisioning features integrate readily into existing back-office systems. Business users have access to single sign-on portals that let them carry out most provisioning and configuration tasks.

Interestingly, service providers using Personeta's platform can adopt a phased migration approach to convergence by selecting only the functionality they need from a comprehensive set of modules, such as the Converged voice VPN module (core features such as a private numbering plan, incoming, outgoing, and mid-call handling, call screening, special charging and changing of the calling line identification, etc.) Unlike conventional voice VPN products, services built using the Personeta solution can include POTS lines, wireless devices, PBX/IP-PBX extensions, and soft phones on a single VPN.

Another module, the Mobility Manager, supports convergence for dual-mode handsets with Voice Call Continuity (VCC) applications. It also supports zone-type convergence where incoming and outgoing calls behave differently according to a designated "user zone".

On the consumer side, Personeta's Converged Life communication suite enables service providers to integrate multiple voice services and enhance them with various applications to create a true value-add scenario. With its modular architecture and the latest in Web Services technology, service providers have the flexibility to create multiple service mashups using a single application umbrella.

At the Center of Things

Tango Networks says they have managed to "meet the needs of all the stakeholders in the mobile ecosystem: the end-user, the enterprise, and the mobile operator". Indeed they have succeeded in combining the functionality of enterprise PBXs and UC systems with the flexibility mobile phones. Tango's PBX/UC solution, called Abrazo, replaces all of your phone numbers with a single phone number, and assigns you one voicemail box to check. You also get access to PBX/UC features from your mobile phone — call forwarding, abbreviated dialing, conference

calling, etc. IT departments can use Abrazo to manage mobile phones like any other corporate asset, abolishing excess calling costs, productivity inefficiencies, inadequate call security, unavailable content monitoring and unnecessary legal exposure.

Abrazo can deliver as many benefits to carriers as it does to enterprises. Its server-based system connects any mobile phone, through any public wireless network, with any PBX, UC or Centrex system. Abrazo lowers the costs of carriers' subscriber acquisition, customer service, and management. Moreover, carriers can now essentially partner with their customers by genuinely integrating employees' mobile phones with their services and the enterprise network. This makes possible enterprise-wide agreements, reduced customer support demands, increased subscriber loyalty, growth in market share and minutes of use. Down the line it can also open the door for the sale of more high-value, high-margin applications.

A Tangled Mobile Web?

In the sometimes bewildering alphabetic soup of FMC, VCC, UC, UMA and SaaS, we can dimly discern that the desktop environment is being cut loose from the office and is becoming a unified set of mobile applications, and ultimately such applications will be easily accessible on mobile devices via the web. The continued rise of social networking will add a few more applications and a lot more network traffic. In the more prosaic short-term, for companies too small and/or fearful to tackle installation of a cutting-edge UC system involving mobility, service providers are ready, waiting and eager to help and to use service differentiation rather than price as a competitive tool. **IT**

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

The following companies were mentioned in this article:

CommuniGate Systems
www.communigate.com

CounterPath Corporation
www.counterpath.com

DiVitas Networks
www.divitas.com

Kineto Wireless
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Personeta
www.personeta.com

RIM
www.rim.com

Tango Networks
www.tango-networks.com

Enterprise Mobility – Going Beyond Plain Old Cellular Service

By Richard “Zippy” Grigonis

As more and more corporate employees become mobile, their use of cellular phones, Blackberries, etc., skyrockets. Indeed, they tend to identify more with their mobile number and addresses than their desktop environment, since mobile devices are always at hand. Unfortunately, Plain Old Cellular Service (POCS) wasn't really designed for some of the corporate applications users would love to run on them. Issues with POCS include hefty mobile airtime charges, poor in-building cellular coverage, no IT visibility and control over mobile usage, and lack of PBX integration with mobile phones. Now, however, a slew of companies are transforming the way we perform our jobs in an increasingly mobile world.

For example, Agito Networks offers an ingenious Mobility Router appliance (and accompanying Dialer application) called RoamAnywhere. The Agito RoamAnywhere Solution extends your enterprise PBX features to a impressive range of single- and dual- mode (WiFi+Cellular) mobile handsets, providing a converged device for business and personal communications enabling you to place and receive calls from both your enterprise and personal cellular numbers. These extended PBX features include conferencing, transfer, call on hold / retrieve short number dialing, do not disturb and directory queries.

While doing this, RoamAnywhere automatically selects the whatever the best network is at the moment to optimize call quality, battery life and cost by leveraging fast and automatic sub-100 millisecond handover. It does this by quickly collecting and analyzing a set of handover metrics including proactive (location), policy-based (cost, time-of-day, battery) and reactive (signal strength, packet loss, quality). Agito RoamAnywhere enables enterprises to mobilize voice and data applications for their workforces and it supports all cellular carriers, enterprise PBXs and Wireless LANs

RoamAnywhere delivers a single enterprise voice identity via its one number, one voicemail and one caller ID architecture, allowing you to be reached anywhere through a single number, even a four digit extension. Users have access to corporate directories, allowing for rapid access to peers from the mobile device without needing to access intermediate applications to find contact information.

Teaching Old Messaging New Tricks

One early and still popular set of mobile applications for the enterprise centers on messaging and email. As explained by Antoine Leboyer, CEO of [GSX](#), “The growth of personal mobile



device usage for the workplace is creating a significant challenge for the IT staff who manage enterprise infrastructures. PC-based email is a mission critical application for most business. This is the most common application employees want on mobile devices. This trend will drive the growth of heterogeneous IT environments that require administrators to manage and monitor multiple servers for Blackberry alongside Lotus Domino or Exchange, or maybe even both at the same time.”

Leboyer's company, GSX, has become the leading provider of monitoring and management solutions for Lotus/Domino, Sametime, BES, URLs and now Microsoft Exchange Servers. Their flagship product, GSX Monitor, keeps an eye on more than 5 million email accounts worldwide, making it the most widely-used messaging monitoring tool. It can check server/network/cluster availability, replication, mail routing, performance, and can monitor LDAP and SMTP ports, as well as any URL. Alarm events can be keyed to location, time of day, severity of problem, etc. It also generates historical reports and graphs summarizing trends on a daily, weekly and monthly basis. GSX Monitor supports all Domino, Sametime, Exchange and BlackBerry Enterprise Servers versions and platforms. Indeed, you can even access key status information directly from your mobile device (Blackberry, iPhone, smart phone). Interestingly, like some other GSX products, it doesn't require any code to be installed on the messaging servers themselves, so there's no code to crash your servers.

They also offer the GSX ID Manager that automates all procedures associated with the creation, modification and removal of mailboxes so that HR or departmental personnel can do common jobs (such as create, delete and rename user IDs) without involving a trained Domino Administrator.

Additionally, the GSX Server Guard enables unattended crash recovery and automated server maintenance procedures for Domino and Windows-based servers, and also needs no resident server code or agents: all GSX software is installed not on your messaging servers but on any PC/laptop or a separate monitoring server. As a result, you can install the solution in less than 30 minutes and start monitoring all of your servers from one interface: Notes, Exchange, BlackBerry Enterprise Server, Sametime or URLs.

Fast and Faster

Dexterra, founded in 2002, offers an expansive portfolio of mobile applications built on its open mobility development platform, Dexterra Concert™, that enables businesses worldwide to manage and optimize their mobile workforces, and to build composite applications that can meet just about any business mobility requirement. The platform consists of reusable application components and enables laptops, tablets, PDAs and phones to connect to multiple enterprise systems. It runs on various mobile operating systems such as Windows Mobile, RIM BlackBerry, and Symbian OS, and can integrate right out-of-the-box with backend solutions such as SAP, Oracle, Siebel, Maximo and Remedy. Dexterra has operations in the Americas, Europe, and Asia Pacific and a vast network of global partners such as [Accenture](#), AT&T, IBM, Motorola, RIM, Telstra and Vodafone that take our software into different channels and provide value-add, such as domain expertise.

Dexterra's Rob O'Farrell, Executive VP of Engineering, says, "With the reorganization of our company and Michael Liebow of IBM joining us as our new CEO, we've focused our organization on several core assets, one being the mobile platform, the other being an applications business relating to field services."

"We recently announced two new editions of our Dexterra Concert mobile development platform: the Dexterra Concert Enterprise Edition and Carrier Edition. Both of these support the new fully-integrated Dexterra Field Service Suite. Because we've developed an advanced mobile platform, we've successfully deployed solutions into a variety of different vertical markets, spanning everything from telecom, life sciences, government, transportation and so forth. Although we're not heavily involved in any specific vertical, the way we've designed our product set is such that it's very 'enabling' and it's easy to verticalize in the form of solutions by our partners."

The new Dexterra Concert Enterprise Edition is basically a development environment that accelerates the creation of flexible, process-driven mobile applications. It can call upon our prebuilt standards-based technology, database and application adapters for mobile integration with virtually all back-office systems. There's also support for multiple mobile devices. Internationalization and localization controls letting enterprises simultaneously operate mobile applications in multiple languages and its patented data management mechanism can streamline workflow and protect enterprise information. Furthermore, developers can gain access to the Dexterra DevNetwork partner ecosystem and its growing catalog of off-the-shelf and customizable mobile applications.

As for the Dexterra Concert Carrier Edition, delivers the same capabilities of the enterprise edition, but on an enormous scale, capable of supporting millions of mobile subscribers while integrating seamlessly with service providers' billing systems. Armed with the Carrier Edition, wireless service providers can offer the Dexterra Concert Server and associated mobile applications in a hosted model to thousands of business customers, supporting millions of mobile workers. Wireless service providers can also enable easy access to customers' business data without having to store it, thus simplifying the process of packaging mobile applications as a service. Essentially, then, the Carrier Edition enables mobile applications to be packaged and sold as billable services. There's also multi-tenant support and an included customer care portal designed specifically for wireless carriers to manage both services and subscribers.

Virtually Anywhere

Handset vendors facing continuing pressure to deliver increasingly elaborate phones (with music, video, cameras, GPS capabilities, etc.) to market faster and faster, and to migrate from proprietary operating systems to open ones without compromising security. That's because people have until recently tended to buy new mobile phones more rapidly than just about any other electronic item. Given that these systems can contain bank account and credit card information, email, and access to corporate CRM and other enterprise applications (indeed, smart phones are becoming a combination of a PC and a wallet rolled into one device), it becomes important to be able to port this information and the accompanying applications over to a new phone.

Now, VMware brings us the Mobile Virtualization Platform (MVP), a thin layer of software that is embedded on a mobile phone to decouple the applications and data from the underlying hardware. It's optimized to run efficiently on low power consuming and memory constrained mobile phones. The MVP currently supports a wide range of real-time and rich operating systems including Windows CE 5.0 and 6.0, Linux 2.6.x, [Symbian](#) 9.x, eCos, µITRON NORTi and µC/OS-II.

VMware Mobile Virtualization Platform speeds up handset development time and end users will benefit by being able to run multiple personalities, such as one for personal use and one for work use on the same mobile device. A person's phone "persona" —applications, pictures, videos, music, emails, bank info, credit card information, PIM and so forth, can be saved by VMware's MVP as a set of files so that all the applications and data on the phone can be managed as a collection of files. People can then easily move their persona to a new mobile device for a – dare I say it – virtually painless upgrade. **IT**

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

The following companies were mentioned in this article:

Agito Networks
www.agitonetworks.com

Dexterra
www.dexterra.com

GSX
www.gsx.net

VMware
www.vmware.com

and SS7) and on any device. Services can be integrated with existing customer premise equipment, such as PBXs and IP-PBXs, or they can be fully hosted. Personeta's Converged Office solutions are now in production in all types of networks (mobile, cable, and fixed) and in all types of architecture (legacy, NGN, and IMS). The built-in provisioning tools for both service providers and business users are based on the latest in Web Services technology and include management interfaces such as Web and IVR portals. The platform's provisioning features integrate readily into existing back-office systems. Business users have access to single sign-on portals that let them carry out most provisioning and configuration tasks.

Interestingly, service providers using Personeta's platform can adopt a phased migration approach to convergence by selecting only the functionality they need from a comprehensive set of modules, such as the Converged voice VPN module (core features such as a private numbering plan, incoming, outgoing, and mid-call handling, call screening, special charging and changing of the calling line identification, etc.) Unlike conventional voice VPN products, services built using the Personeta solution can include POTS lines, wireless devices, PBX/IP-PBX extensions, and soft phones on a single VPN.

Another module, the Mobility Manager, supports convergence for dual-mode handsets with Voice Call Continuity (VCC) applications. It also supports zone-type convergence where incoming and outgoing calls behave differently according to a designated "user zone".

On the consumer side, Personeta's Converged Life communication suite enables service providers to integrate multiple voice services and enhance them with various applications to create a true value-add scenario. With its modular architecture and the latest in Web Services technology, service providers have the flexibility to create multiple service mashups using a single application umbrella.

At the Center of Things

Tango Networks says they have managed to "meet the needs of all the stakeholders in the mobile ecosystem: the end-user, the enterprise, and the mobile operator". Indeed they have succeeded in combining the functionality of enterprise PBXs and UC systems with the flexibility mobile phones. Tango's PBX/UC solution, called Abrazo, replaces all of your phone numbers with a single phone number, and assigns you one voicemail box to check. You also get access to PBX/UC features from your mobile phone — call forwarding, abbreviated dialing, conference

calling, etc. IT departments can use Abrazo to manage mobile phones like any other corporate asset, abolishing excess calling costs, productivity inefficiencies, inadequate call security, unavailable content monitoring and unnecessary legal exposure.

Abrazo can deliver as many benefits to carriers as it does to enterprises. Its server-based system connects any mobile phone, through any public wireless network, with any PBX, UC or Centrex system. Abrazo lowers the costs of carriers' subscriber acquisition, customer service, and management. Moreover, carriers can now essentially partner with their customers by genuinely integrating employees' mobile phones with their services and the enterprise network. This makes possible enterprise-wide agreements, reduced customer support demands, increased subscriber loyalty, growth in market share and minutes of use. Down the line it can also open the door for the sale of more high-value, high-margin applications.

A Tangled Mobile Web?

In the sometimes bewildering alphabetic soup of FMC, VCC, UC, UMA and SaaS, we can dimly discern that the desktop environment is being cut loose from the office and is becoming a unified set of mobile applications, and ultimately such applications will be easily accessible on mobile devices via the web. The continued rise of social networking will add a few more applications and a lot more network traffic. In the more prosaic short-term, for companies too small and/or fearful to tackle installation of a cutting-edge UC system involving mobility, service providers are ready, waiting and eager to help and to use service differentiation rather than price as a competitive tool. **IT**

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

The following companies were mentioned in this article:

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www.communigate.com

CounterPath Corporation
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DiVitas Networks
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Personeta
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RIM
www.rim.com

Tango Networks
www.tango-networks.com

Enterprise Network Management

By Richard “Zippy” Grigonis

It's true that there's a hit parade of enormously-capable management packages that have undergone refinement for many years, such as IBM's Tivoli and HP OpenView (later called HP Software), and Nortel's Enterprise Network Management System (ENMS) a single system that can work with all sorts of networks (wireless, wireline, voice/data converged, etc.) and which enables network administrators to identify and resolve problems and performance bottlenecks before they can disrupt network services such as multicast video and IP telephony. There are also many other smaller players out there who offer interesting, if perhaps more specialized, forms of enterprise network management.

The main theme here is that, as networks continue to grow in size and complexity, it becomes necessary to centrally visualize, monitor, troubleshoot and control them. Speaking as a former IT director who was in charge of 186 workstations, I can assure you that even simple asset management can be a nightmare.

Fortunately, there are companies that can come to the aid of today's befuddled IT staff, such as ManageEngine and their very successful enterprise management software, especially suited for the mobile environment (laptops, PDAs, etc.). ManageEngine Desktop Central is desktop management software that supports all Windows-based machines (laptops). It can track asset inventory (including hardware and software), manage software licensing, manage service pack and patch management, do remote desktop sharing, manage Windows configurations, and many other neat functions Yours Truly wished he had available many years ago.

The ManageEngine Asset Explorer is asset management software that supports both laptops and PDAs (for inventory). It can track asset inventory, including hardware and software manage software licensing and compliance manage contracts and purchase orders.

IP Addresses Here, There and Everywhere

One of the less-than-glamorous – though increasingly important – enterprise management activities concerns IP Address Management (IPAM). For example, Alcatel-Lucent's VitalQIP DNS/DHCP IP Address Management Software for the Enterprise helps enterprises efficiently configure, automate, integrate and administer IP services across a local or global network. It supports applications with millions of individual IP addresses and thousands of domains. The accompanying VitalQIP Appliance addresses the shift in the IPAM market towards appliances centering on increased reliability, manageability, scalability and security. VitalQIP can automate end-to-end management of IP addresses, increase efficiency with centralized management, seamlessly manage multi-vendor IP platforms, safeguard critical data.

BlueCat Networks has also plumbed the depths of IP address issues. BlueCat's Director of Marketing, Joseph Belsanti, says, “We were founded in 2001 by two brothers who had founded a previous organization and who experienced some frustrations when it came to DNS and DHCP. They felt they could build a better mousetrap and did so. Today, we do business in 32 countries and we serve over 850 Fortune 1000 companies worldwide. We do business in North America primarily through a mix of direct sales and the channel, primarily systems integrators.”



“We produce two ‘boxes’,” says Belsanti, “a rack-mounted DNS/DHCP server called Adonis and another rack-mounted IPAM server called [Proteus](#). The units come in either a 1U or 2U-high form factor. We're obviously a horizontal play in the marketplace. When it comes to enterprise network management and Internet telephony, VoIP is one of the key drivers for IPAM, though IPAM does have a number of other market drivers right now, such as virtualization, the countless number of wireless devices out there now looking for IP addresses, and finally IPv6, which is rearing its head in the marketplace. I suppose you could even add the various kinds of nontraditional IP devices now becoming IP-enabled – things such as IP security cameras, which are putting a strain on the networks.”

“We've had some tremendous success over the past few years in managing the new network fabric being rolled out over the IP network topology called IP Address Management, or IPAM,” says Belsanti. “The analogy here is that one never had reason to invent a carpet cleaner until there were carpets. Similarly, we're now seeing a maturation of this marketplace in the network world, which is starting to manifest itself via a number of different players appearing and addressing how you can manage all of these many IP addresses. Given the current economic climate, outside of the typical discussions where enterprises are looking to do more with less and reduce the total cost

of management per IP address and looking to consolidate things as a way of gaining economies of scale, one thing is very true about our marketplace – when you start to see mergers and acquisitions, and the consolidation of networks, suddenly the true expense of integration is on the tech side in terms of bringing these disparate network systems together. Therefore, as part of IPAM, IP reconciliation is a huge driver for us as organizations and enterprises are looking to help themselves gain that greater ROI in IT purchases, and to help them lower the cost of managing things per IP address in terms of consolidating the functions.”

“In addition to IP reconciliation, IPAM also encompasses workflow, enforcing naming policies, and having end user-defined fields for IP addresses, which we’re also seeing happening in the marketplace,” says Belsanti. “When we engage with our customers and with enterprises, they tell us that there are two ‘buckets’ of data within an IP network. First, there’s the data that resides with the DNS/DHCP server, whereby you have the ‘Yellow Pages’ if you will, lining up IP addresses with domain names, and then dishing out the IP addresses accordingly. But now what we’re starting to see – which is the interesting part within the enterprise – something that’s been talked about for years: the emergence of the convergence of IT processes and business processes. In fact, when the research people such as [Forrester](#) no longer talk about IP in terms of being Information Technology; instead, they talk about Business Technology or B.T. We see this manifesting itself within the marketplace very concretely because we now see enterprises in the spirit of doing more with less and being more ‘business-enabled’ and wanting to attach all kinds of data to the average IP address. This is as true about VoIP as anything else. They’re not only interested in the MAC [Media Access Control] address or Ethernet Hardware Address [EHA] [a quasi-unique identifier assigned to most network adapters or network interface cards by the manufacturer for identification]. They now want to start associating other data with the IP address.”

Belsanti elaborates: “For example, in the VoIP scenario there’s all sorts of information you can tack on: Who’s phone is it? What’s the employee number? What department are they in? What GL code should be bill that phone to along with the expenses off of that phone? And so forth. Also, in con-

junction with an IP address management solution, companies want to comply with IP governance and local and international security and privacy policies by being able to identify, monitor, report and produce a good audit trail to determine who had what IP address and when. That takes us back to IP reconciliation, because there are several things which enterprises consider doing when they start reconciling IP addresses. For example, administrators will go out and take a look at their SQL database residing on a network server somewhere or in a racked appliance such as ours, and they’ll ask, ‘Okay, how many IP addresses do I have registered?’ Let’s say for argument’s sake they have 10,000 registered. The next thing they’ll do is periodically perform a network discovery. Three things can then happen: First, the database will indicate that they have 10,000 IP addresses, but when they actually run a network discovery, they might tally 15,000 addresses. Why 5,000 extra addresses? Is it because department projects were allocated IP addresses and when the projects were terminated, nobody ever told IT, so the addresses were never reclaimed? Is it because during this economic climate there were business units that downsized and nobody told IT? Or is it because the sales manager bought a wireless router, threw it over the ceiling tile of his office and is now providing IP addresses to his sales team simply because he couldn’t be bothered to communicate with IT and have them officially and properly allocate IP addresses to his staff? And is that a potential security breach?”

“Second, the SQL serve database may tell you that you have 10,000 IP addresses but when you run a network discovery you discover there are only 5,000 available,” says Belsanti. “It could be that the database is simply out-of-date. The third scenario is that the numbers all match up – 10,000 addresses listed and 10,000 appearing in the discovery process, but the data associated with those addresses have changed. So an IP address may be associated with a particular MAC address, but the network discovery reveals that the MAC address is incorrect. Was there a technology refresh? Or is somebody spoofing that particular IP address and therefore you need to go back and figure out if somebody is hacking the system. So there are many interesting things happening involving IPAM and IP reconciliation.”

“Another big issue relates to workflow,” says Belsanti, “particularly with organizations

as they start looking at the newly matured abstraction layer that has appeared in the enterprise. We all talk about doing more less and squeezing more ROI out of IT investments, but when it comes to managing the network and managing IP addresses in the network, what enterprises need to do is to ensure that they have the right tool for the right job and the right resource in that tool. For example, sometimes you might have a very expensive systems administrator doing nothing but setting up a new domain server, or a new FTP server, and of course that could have been delegated out to a sub-administrator or a junior administrator. With workflow enablement, enterprises are now able to delegate and have central administrators or ‘super administrators’ who can pass on specific network tasks to others, and have that work stay resident in a ‘sandbox’ or ‘holding area’ and then once the work is complete, the central administrator can review the finished task and then push ‘Go’ so that the work goes ‘live’ right then and there, otherwise unscrutinized work could potentially take down the entire network. That’s another big area in IPAM.”

Micromanage Your Network Today

One can spend an infinite amount of time studying the intricacies of any large network, the theories behind them and the many tools that can analyze and manipulate them. At some point you’ve got to make a decision.

Personally, I’m waiting for the U.S. government to scrap the Social Security system and assign us all IP addresses. It sounds far-fetched now, but it will sound quite reasonable in 20 years or so. **IT**

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

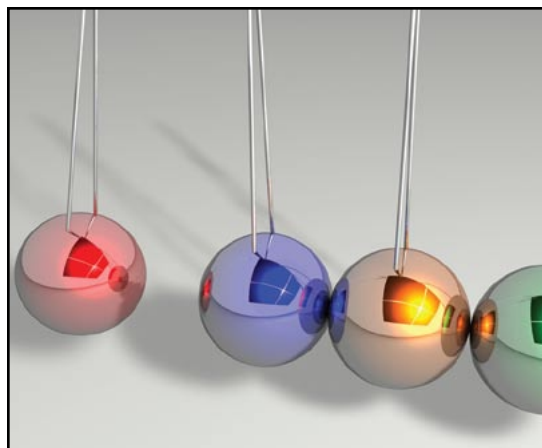
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A Note on Host Media Processing

By Richard “Zippy” Grigonis

The pendulum of technology swings back and forth over the years. In the 1980s and 1990s, computer telephony and signal processing functions too heavily burdened the workings of computer CPUs, so plug-in boards having embedded Digital Signal Processors (DSPs) were developed to offload processing and relieve the CPU. Later, when powerful CPUs appeared, many solutions dispensed with extra hardware and ran natively on the CPU purely as software. Such Host Media Processing (HMP) Software can handle media processing tasks on general-purpose servers for gateways, converged telephony applications and video portals.



Take Dialogic's HMP Software, for example, which, when installed on a system, looks for all the world like a Dialogic board with DM3 architecture to the customer application, but in fact all media processing takes place on the host processor.

Dialogic's HMP Release 3.1 for Linux supports 3G-324M Release 99 for TDM and NbUP. It also supports G.711, G.729ab, G.723.1, G.726 and AMR-NB Codecs, native streaming and native play and record.

Dialogic's HMP Release 3.0 for Windows supports video (H.263), T.38 and V.17 Fax, speech integration, enhanced RTP (G.723, G.729), and dual-core CPU, with densities up to 750 ports per server for voice using G.711 and 580 channels of conferencing.

One company that has definitely mastered the fine art of HMP is Aculab, a company perhaps best known for hardware-based products, such as the Prosody and Prosody X media processing boards that provided market-leading capabilities and channel densities since their introduction in the mid-1990s. In 2004, Aculab took its extensive knowledge of media processing requirements to provide a software version of the product, Prosody S, for use in systems utilizing host-based processing.

When asked how important HMP is to Aculab, their Global Sales and Marketing Director, Chris Gravett, says, "Host Media Processing is now a key part of Aculab's portfolio of media processing products, giving the developer a choice of an all software product for IP-based system designs. With the continual improvements in processor power from Intel and AMD, the progression to a more IP-centric communications infrastructure, and the trend for software only solutions we believe that HMP will increase in its importance."

"Our Prosody S provides a 'software only' version of our DSP-based Prosody X media processing boards, for use in either a pure IP environment or behind a gateway," says Gravett. "Prosody S has recently been updated to version 3.0 which introduced Linux support and a common API architecture with our Prosody X hardware products. Linux support gives yet more choice to the developer, and with a common API set we have made it even easier to integrate with Aculab and develop applications for Prosody X or Prosody S as required."

"With its ability to be licensed from a single channel upwards and a full feature range included in the basic price, Prosody S presents a very attractive price per port proposition," adds Gravett. "Aculab's full technical support facilities are included to help customers implement their HMP solution."

"Our Prosody S HMP product is licensed via our website," says Gravett. "The web-based licensing tool enables both regular licenses and trial or evaluation licenses to be obtained via a simple process, allowing developers to get up and running with our software very quickly. Self-management of license keys is possible, which is useful in situations such as disaster recovery when licenses have to be ported from a failed server to a new server."

When asked if Aculab was about to unveil any new HMP developments, Gravett replied, "We will carry on with our continual development of the platform to maintain it as one of the most feature-rich HMP platforms for IP-based voice and video communications on the market today. Features in the pipeline for the near future include wideband conferencing enhancements, expansion of the supported voice/audio codecs and support for video communications." ■

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



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<http://wimax.tmcnet.com>

Securing Carrier Networks

By Richard “Zippy” Grigonis

In the Enterprise Network Management article elsewhere in this issue, Yours Truly comments on how businesses are trying to get a handle on what’s happening in their network with centralized tools that can help them easily visualize, monitor and troubleshoot network phenomena, both mundane and mysterious. Similarly, carriers and service providers strive for the same utopian state of affairs, except that their networks are orders of magnitude larger and complex than those of other organizations.



One player that stands out is Arbor Networks, which supplies secure service control solutions to over 70 percent of the world’s ISPs and many large enterprises. Network-wide visibility is their forte, and they’re known for their highly regarded network security, traffic management, network monitoring, bandwidth management and broadband service optimization. Their solutions also help providers create differentiated services that can increase revenue and profitability. By employing flow-based and Deep Packet Inspection (DPI) technologies, Arbor solutions can manage and protect entire networks – from the network core to the broadband edge.

Deep, Deeper, Deepest...

Deep Packet Inspection (DPI) is an interesting technology that has skyrocketed in importance in recent years, primarily because it combines the functionality of an Intrusion Detection System (IDS) and an Intrusion Prevention System (IPS) with a traditional stateful firewall. This amalgamation makes it possible to detect certain kinds of attacks that neither the IDS/IPS nor the stateful firewall can catch individually.

Radware, a leader in integrated application delivery and application security solutions for networks of all sizes, offers DPI/DFI security based on their innovative network behavioral analysis technology capable of detecting (“zero-touch”) and mitigating all types of known and unknown (“zero-minute”) network IPS/DoS and DDoS floods. The network behavioral analysis module monitors network-wide behaviors, establishing the traffic and service baselines needed to immediately identify anomalies and potential service attacks. Utilizing advanced statistics, fuzzy logic and adaptive, self-learning feedback mechanisms, this behavioral network analysis module automatically and proactively

blocks high-volume self-propagating worms and service floods to safeguard network resources and services in real time, without affecting legitimate traffic or impacting service performance.

Radware can supply DPI/DFI-based infrastructure DoS/DDoS protection at the carrier perimeter/peering edge. Their DefensePro product operates at multi-gigabit speeds as a remarkably transparent in-line device, in the process affording complete visibility, blocking and rate limiting of all ingress attack traffic, thus extending a first line of defense at the point of entry to the carrier core. By cleansing (“coarse grain granularity”) carrier networks from all mass-volume attacks at the peering edge, DefensePro prevents attacks from ever impacting the carrier network or subscribers.

DefensePro’s attack signature IPS protection, DoS prevention, worm propagation mitigation and anti-scanning, secure against known and unknown server exploits and application vulnerabilities. As mentioned above, DefensePro’s advanced behavioral IPS/DoS technologies detect and deliver zero-minute mitigation of service and resource abuses – including DNS query floods, spoofed Syn attacks, BOTs (HTTP and SIP) detection and mitigation, providing fine-grained detection capabilities.

To bolster their DPI, the previously-mentioned Arbor Networks has partnered with Bivio Networks, a specialist in the field.

Bivio’s CEO, Elan Amir, says, “We’ve been around since 2000. We’ve been on the product path of Deep Packet Inspection [DPI] since about 2004. Bivio has in effect built a DPI networking element. The reason for that is that we see DPI as perhaps the fundamental networking technology of the future that underlies networking services, much in the same way that switching and routing evolved 15 or so years ago. Now, DPI underlies many

services that span everything from security to subscriber management on the carrier side to information assurance, to traffic management. It's a unifying capability. So, about five years ago Bivio felt the time was right to devise a new type of networking element that would focus on the requirements of DPI without actually perusing a specific application and then engaging the markets. We have a broad sales model – we have OEM relationships with companies such as Sourcefire and Arbor Networks that use our products either in terms of intrusion detection as in the case of Sourcefire, or the DDoS threat mitigation system for carriers in the case of Arbor. We sell through the channel to the federal government a variety of information assurance applications. Some of our deals are visible and public such as our announcement with Defense Information Systems Agency [DISA] that we are the security platform of the future for the Department of Defense [DoD], and some of our deals are classified.”

“We also sell to service providers that use our products for the development of next-generation service delivery and next-gen gateways,” says Amir. “Again, the unifying technology that underlies of these applications is deep packet inspection and the characteristics of those applications are very different than traditional networking applications that were either low-throughput and high compute in nature, or else high throughput and relatively low compute. As it happens, DPI applications are characterized by a combination of both high throughput and high compute requirements. That necessarily creates the demand for a different type of infrastructure, and that's the set of products that we offer. The boxes that we sell are in appliance form. We have a variety of different ‘flavors’, from 1 gigabit per second [Gbps] all the way up to 10 gigabits per second and beyond. We have scaling capabilities where you can scale both the compute dimension and throughput dimension. All-in-all it makes for a very interesting platform on which companies and customers can develop applications. On the one hand, we offer a high-speed networking device, on the other hand, it has a Linux development and execution environment that looks very much like a server and so it's the best of both worlds from a technical standpoint.”

Bivio's top-of-the-line 7000 Series of Network Appliance Platforms is a family of compact, high-performance, fully programmable network appliances that combine Bivio's packet processing hardware architecture with a software platform that includes a standard Linux-based execution environment and a comprehensive set of networking features. Designed specifically to provide super-fast, wire speed deep packet processing, the Bivio 7000 Series architecture fuses Network Processing components with Application Processing CPUs in an effort to deliver both high performance and enhanced flexibility. The platform family includes two main product groups that provide performance optimized features to deliver true line rate packet processing from 3 Gbps through 10 Gbps throughput.

“As for carrier security, we tend to touch that area through our partnership with Arbor Networks, which is the leader in that area,” says Amir. “Also, we encounter it in some projects that we've done with service providers around the world. Many of these are not publicly known, but they do suggest some trends. First, in their ever-continuing quest for adding value on top of sheer connectivity, carriers look at security as an area for added value and the ability to increase their ARPU, increase customer stickiness and lower churn, and all of those great things that make their business model work. They have focused in the area that's collectively called ‘clean pipes’ – that's obviously the broad term for trying to remove everything that's bad on the service provider pipe. Our partnership with Arbor certainly does that. Some of our partnerships in Asia have used our boxes to try and determine appropriate access based on the billing conditions and/or security conditions in the network, with the ultimate objective being that everything that flows on the network should only be authorized and approved either on a subscriber level, at a traffic level, at a payload level, compared either against security databases or subscriber databases. At the end of the day, it's all the same. The value ultimately is to the end user, because he or she is now guaranteed that the integrity of the pipe is maintained.”

“In the federal space and in vertically-oriented service providers, you tend to see a lot of emphasis on ‘sensing’ and just trying to be aware of what exactly is running on the network – not for any nefarious reasons that make headlines, but for just for maintaining general network integrity,” says Amir. “Networks are the backbone of many organizations and being able to know what's running on the network is important, because you can correlate that information with potential threats.”

“Overall, the service providers have a role to play in all of this, because they have a unique vantage point where they can cross-correlate many activities across many organizations,” says Amir. “The value to organizations is that, when you're sitting inside of an organization, you only see what's coming into your organization and you don't necessarily have the ability to cross-correlate that information with what's going on in the network in general. The service providers can't really help you with what's going on inside your organization, but on the other hand, they can cross-correlate a lot of traffic that is traversing multiple organizations and therefore they can complement the internal security technologies. We tend to see movement in that direction quite a bit.” **IT**

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

The following companies were mentioned in this article:

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www.arbornetworks.com

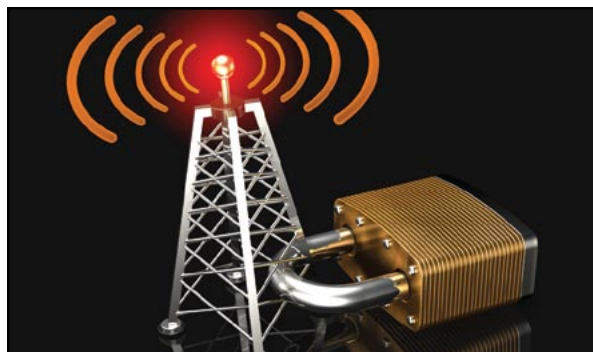
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Enterprise WiFi Security Tips

By Richard “Zippy” Grigonis

Security for WiFi has experienced something of a roller coaster ride over the years. It's been the subject of more rumor-mongering and urban legends than anything in recent history. Certainly anything that sends data over a wireless, radio connection is intrinsically easier to “tap” or intercept than Category 5 network cable or broadband connections to an Internet Service Provider. WiFi thus must rely heavily on encryption, and there hangs many a tale...



Wired Equivalent Privacy (WEP) encryption was for a time “standard” security for wireless routers and access points. WEP users soon became worried with WEP's many inadequacies came to light, American FBI agents have demonstrated how to break WEP protection in only three minutes using generally available tools. WEP used the RC4 stream cipher provided by RSA security. Problems with WEP included its small IV (Initialization Vector) lengths, weak IVs, and direct use of master key in encryption.

WEP was followed by the more advanced WiFi Protected Access (WPA and WPA2) security protocols. However, if users employ a “weak” password, such your name or a dictionary word or a short character string, WPA and WPA2 can be cracked. A long random password or phrase or random words greatly increases the time that a nefarious individual can “aircrack” pre-shared key WPA or WPA2, which is based on the final IEEE 802.11i amendment to the 802.11 standard. Wireless routers and Access Points also rely on their access control features such as MAC (Media Access Control) address filtering that denies network requests from hostile clients. (Every WiFi device has a unique MAC or unique physical address.) Routers and access points maintain a list of the MAC addresses of all devices that connect to them. In many cases you can manually input MAC addresses, restricting the network to only your WiFi-enabled devices, but hackers using commonly available software tools can fake MAC addresses.

End-to-end encryption would seem to be a solution, but to be effective each service to be secured must have encryption enabled and every connection must be lit up separately. When using Virtual Private Networks (VPNs) however, a single switch encrypts all of the traffic, making them inherently secure (though VPNs generally do require some considerable computing resources).

Another problem is that enterprise users are increasingly mobile, and connecting to an airport's WiFi to check email can be tempting, even if one suspects a hacker could be nearby attempting to sniff out and eavesdrop on your data stream. There are 68,000 WiFi hotspots in the U.S., at airports, hotels, coffee shops, bookstores, schools, and other locations where hundreds or thousands of people pass through every day. Some of these are secure, some aren't. Certainly you should change your laptop settings so that you don't auto-connect to any available (and perhaps unsecured) WiFi Network. Hackers can set up a bogus but credible-looking WiFi network with a strong signal near a known hotspot, and soon an unsuspecting user will connect to it, thus making the user's laptop fully accessible. The hacker can even direct you to phony websites so that your password keystrokes can be captured.

You should ensure that your laptop security is up-to-date, with current versions of your operating system, firewalls, web browser, firewalls, and antivirus and anti-spyware software.

Even in an enterprise environment, a “rogue” WiFi Access Point having no security settings can be clandestinely connected to your network without authorization, enabling any WiFi equipped device to peruse your corporate network. The Swedish company AirMobile has a solution that enables service providers and enterprises to protect networks from wireless security vulnerabilities. The AirMobile solution is a secure and inexpensive solution using mobile sensors to send alarms about the WiFi security status. The AirMobile server handles reporting, alarms and mitigation on the wired network, and just two to three AirMobile agents (running on Windows CE 5.0 or 6.0) at each office location will typically cover relatively complex buildings. Best of all, you don't need to be a network expert to run AirMobile agent. You can even choose what kind of network to use to send data from an AirMobile agent to the AirMobile Server (PDA sync, WLAN or GPRS).

The Not-So-Important SSID

WiFi routers and access point manufacturers ship their devices with a pre-defined network name called a Service Set Identifier (SSID) which is used to identify the particular 802.11 wireless LANs to which a user wants to attach. You can change an SSID at any time (it's a good idea to do this periodically) but you must remember to make the same change on all of your WiFi devices. Don't use your birthday or other personal information as your SSID, but do make the SSID as long as possible

and include both letters and numbers. Remember that an SSID is not a password, just a network name, so don't treat it as if it's an important security feature.

Some small **Linksys** (now Cisco) routers and access points have SecureEasySetup (SES) buttons. Push it and the system will automatically set up and secure the network with a unique SSID and activate WPA or WPA2 encryption.

In theory you should disable the router or access point's SSID Broadcast feature, which periodically broadcasts the SSID over the air at precise time intervals so that WiFi devices can dynamically discover and roam between WLANs (a great feature for hotspots). It also makes it easy for hackers

to intercept an SSID. However, I've heard that both Windows XP and Vista have better performance when your router and access points broadcast their SSIDs.

Check Your WiFi Security for Free

If you'd like to check your WiFi security, visit JiWire's free WiFi Security Test at www.jiwire.com/wifi-security-test.htm. In a few seconds, JiWire's test will give you information about your WiFi connection and whether or not it is vulnerable to wireless hackers. It will tell you whether or not your wireless connection is secure using WEP, WPA, or JiWire Hotspot Helper (yes, they do have a security product they can sell you). The test will also display the name, signal strength and WiFi channel of the wire-

less network you're using, the MAC address of the network router and the IP address it has assigned to you, and your computer's Wi-Fi adapter and its driver software.

What to do?

Use a firewall on your router (and perhaps personal firewall software on each PC), anti-viral software (such as **Symantec's**) and anti-malware (such as CounterSpy from Sunbelt Software) and enable WPA or WPA2 encryption – which can be done right in XP and Vista. That should stop 99.9 percent of hackers.

What kind of WiFi security system do I use, you ask? Er, who ever said I use WiFi? <grin> **IT**

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Enterprise 2.0 – A Lifeline for the IP Communications Market?

By Greg Galitzine

No one is immune from the effects of the macroeconomic conditions currently at play across the world. Every enterprise needs to carefully consider their situation, and take the appropriate steps to ensure continued operation, to avoid being swept up in this ill tide of bankruptcies and restructurings. Some businesses might even fare well in these trying times, but for most it's an exercise in cautious optimism, seeking savings at every turn, carefully controlling spending and for some fortunate firms, taking the necessary steps that would position them ahead of the pack when this recession ends.

A recent news item quoted officials at Alcatel-Lucent, at the time undergoing a strategy review under their new CEO, as saying that market conditions are forcing the firm to lower their 2008 sales expectations by 2–5 percent. Not much news there.

However, the article also reported that Alcatel-Lucent's investor relations chief, Remi Thomas, said he believed "carriers would continue to invest in strategic areas designed to generate new business, in capital equipment that could reduce operating expenses, and to meet regulatory requirements."

It is precisely this need for customers to generate new business that can help firms that develop communications solutions to weather the financial storms roiling the global markets.

A recent article by Xavier Martin, who handles Strategic Marketing for the Enterprise Solutions Division at Alcatel-Lucent speaks to the evolution currently underway at enterprises across the globe. In the article, *The Dynamic Enterprise – Leveraging 2.0 Applications*, [www.tmcnet.com/2598.1] the author states that:

Over the next few months and years, a growing number of mid-market, large and multinational companies will learn that significant gains can be made by integrating tangible and intangible organizational assets — network, people, processes and collective knowledge — to boost productivity and efficiency and achieve a competitive advantage.

Martin also writes of the need for CIOs to evolve in lockstep with the needs of their evolving enterprise to ensure that innovative new technology is implemented in a seamless way to achieve the goals of the organization:

Their new responsibilities make it necessary for them to look beyond technology toward enabling business objectives such as attracting customers and supporting key processes. Thus, in Dynamic Enterprises, CIOs must carefully tailor their portfolio of projects with an eye to realizing a comprehensive business transformation over a period of time.

Martin also discusses the marriage of consumer Web 2.0 applications with corporate usage, and the resulting outgrowth of a trend widely referred to as Enterprise 2.0. Enterprise 2.0 solutions enable companies to gain better access to knowledge within their organizations.

And, as Martin writes, "...if a company integrates this collective knowledge with real-time communications, it can have a significant business advantage by linking the right people at the right moment on the right device."

Avaya's Lawrence Byrd touched on many of the same issues in his keynote speech [www.tmcnet.com/2599.1] at the Communications Developer conference, albeit from an angle that targeted the development community.

In his presentation, entitled Unified Communications in a Web 2.0 World, Byrd spoke of the critical role developers must play in the future of communications.

One key to Byrd's speech was this definition of Enterprise 2.0 from Harvard Business School's Andrew McAfee:

Enterprise 2.0 is the use of emergent social software platforms within companies and between companies and their partners and customers.

In the end, Byrd pushed the developer community to recognize the emerging development of Enterprise 2.0 as an opportunity; an expanded playground to create ways of connecting disparate elements to deliver added value for their end customers.

Interactive Intelligence too believes that creative, yet sensible use of Web 2.0 technologies can benefit enterprises looking for a leg up on the competition. The company recently announced the addition of SMS message handling to their core product CIC, or Customer Interaction Center. The company also believes that companies need to start leveraging these enterprise 2.0 tools to actually derive some business benefit, not simply use cool new tools for the sake of using cool new tools.

In a recent TMCnet podcast, [www.tmcnet.com/2600.1] Joe Staples, senior vice president of worldwide marketing for Interactive Intelligence, addressed a new approach to business process automation. The conversation was spurred in part by a white paper written by Interactive Intelligence CEO Dr. Don Brown entitled — you guessed it — *A New Approach To Business Process Automation*. The white paper is available for download on TMCnet www.tmcnet.com/2601.1.

During the podcast, Staples gives several examples of business processes and how enterprises can really benefit by leveraging some sort of process automation strategy. In his opinion, the current trends of UC and CEBP (unified communications and communications enabled business processes, respectively) are fine as far as they go, but a new approach, one he dubs CBPA or communications-based process automation takes things to another level, offering enterprises a more efficient solution to their business needs.

I urge you to give the podcast a listen. It may change the way you view unified communications. If nothing else, it will prompt you to ask more questions of the vendors you plan to do business with. **IT**

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