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INTERNET TELEPHONY®

VOLUME 13/NUMBER 6 JUNE 2010

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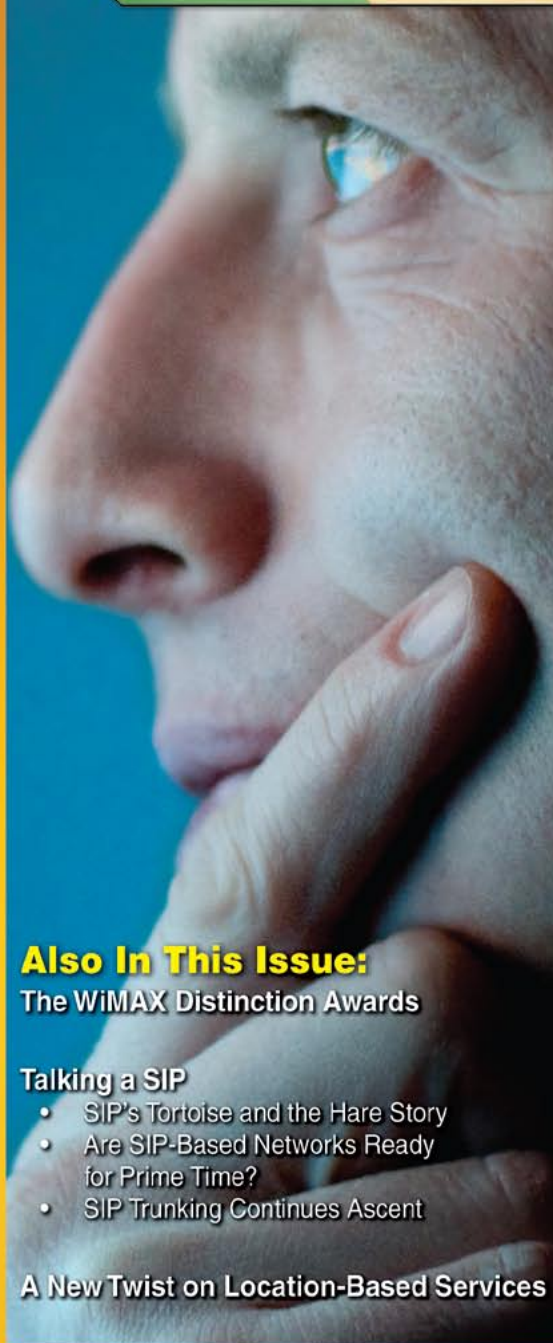
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- SIP Trunking Continues Ascent







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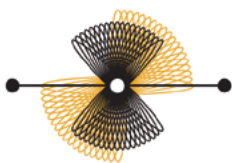
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Group Editorial Director, **Erik Linask** (elinask@tmcnet.com)
Executive Editor, IP Communications Group,
Paula Bernier (pbernier@tmcnet.com)
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TMC LABS

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Director of TMCnet Live Web Events
Jim Spangenberg, ext. 211 (jspangenberg@tmcnet.com)

SUBSCRIPTIONS

Circulation Director, **Shirley Russo**, ext. 157
(sruusso@tmcnet.com)

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Tell Me What You Want, What You Really, Really Want

The need for more wireless spectrum to support the boom in mobile devices and bandwidth has been discussed at great length and, I thought, was an idea on which most in the industry agreed. But recently this supposition, as well as how wireless spectrum is made available for this purpose, has been thrown into question.

We have **Verizon** Communications CEO Ivan Seidenberg to thank for that. Recently, Seidenberg told The Wall Street Journal that the FCC shouldn't be involved in freeing broadcast spectrum for wireless use and went on to opine that maybe, just maybe, the need for new wireless spectrum isn't as significant as we had all been led to believe.

Here's the quote: "I don't think the FCC should tinker with this. I think the market's going to settle this." And, referring to The National Broadband Plan: "I don't think we'll have a spectrum shortage the way this document suggests we will."

Needless to say, a lot of folks were bowled over.

Clearly, Verizon is among the key companies positioned to benefit from the FCC's much-publicized effort to free up spectrum for wireless use. In fact, a March 2 blog by corporate communications VP Jim Gerace quotes Verizon Wireless CEO Lowell McAdam as lauding the FCC's efforts to free up spectrum via the National Broadband Plan.

McAdam was quoted as saying: "Verizon Wireless commends Chairman Genachowski for his vision and leadership in recognizing the critical importance of unleashing more spectrum to support the burgeoning growth of mobile broadband and his commitment to free up 500 Megahertz of new spectrum over the next decade. The wireless industry has been an engine for innovation, economic growth, and job creation. In order to continue that successful track record and deliver public benefits in the areas of education, health care, energy management, and public safety, more spectrum will be needed in the future."

"Verizon Wireless agrees with the chairman that newly identified spectrum should be subject to market-based policies that will promote innovation, speed the delivery of advanced wireless products and services, and ensure that commercial spectrum flows to uses the market values most," McAdam went on to say. "Moreover, as the commission moves to auction more spectrum, clearly defined and flexible rights will ensure continued innovation and investment in the industry. Verizon looks forward to working with the commission to establish this important spectrum policy framework."

This kind of response makes perfect sense given, as FCC Chief of Staff Edward Lazarus recently blogged, "Verizon played a major role in building an overwhelming record in support of more mobile broadband spectrum."

And yet now come the Seidenberg comments.

In case anyone thinks the comments were just a slip of the tongue, the journal later reported that a Verizon spokesman says while the company still believes there is a "long-term need" for more mobile broadband spectrum, in the near term "we support greater reliance on the free market to ensure that 1) unused spectrum can be purchased by those who would use it, and 2) all spectrum is put to its highest and best use."

To quote Lazarus, who commented on the Seidenberg's now-famous words: "baffling." **IT**

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Deciphering Apple's Success Involves a Simple Equation



A recent blog by Charlie Stross of Charlie's

Diary explains why he thinks **Apple** is blocking Flash from many of its newer devices. In a nutshell, Flash allows cross-platform development, and Apple of course doesn't want to see this being done. There are other cross-platform tools available for the **iPhone**, but let's not go there at this moment.

Another interesting point in the article is a mention of HP buying Palm to compete with Apple via webOS. This is 100 percent correct. The world has changed. I wrote a while back about how Apple is destroying open computing with its walled-garden approach. Now that I have an iPad, I continue to assert this is the case.

But it gets worse for the competition because Apple has the same secret weapon in devices that Sony has in cameras. The proprietary memory stick is what allowed Sony to make more money per camera than the competition. If it chose to, it could either lower prices or add more innovation into the camera and sell more than the next guy. Memory stick technology really didn't keep up with other devices, which means this advantage is not so great for Sony today.

However, Apple has a very good idea as to what each iPad/iPhone customer is worth over the life of the product due to App Store revenue -- all this and iTunes revenue to boot. So, now Apple can charge less for a device today because of the revenue it will make tomorrow. Moreover, Apple knows as it sells even more devices, the developers will come calling in larger numbers, which of course means more revenue per user.

Another concept in the above-mentioned post has to do with the PC era being at an end. I am not sure I agree with this idea, but what I do believe is Apple's products continue to kick the rear out of all others. And the company has a head start, which is unbelievably scary for those who hope to keep computing ecosystems open.

Apple took a phone and made it bigger, and now it is eating into the general notebook market. It could tweak it again and turn into a laptop killer. Tweak it once more, and it is a desktop killer. Each

time the company does this it keeps the ecosystem closed. Shut. No entry unless you are a massive computer company based in Cupertino, Calif. Or, of course, unless Apple says you are approved.

Face it. When it comes to computing devices, HP is screwed. **Dell** as well. Sony may not stand a chance.

These new Apple devices have the most simple user interfaces and even leave important things like multitasking and Flash out. Still people can't stop buying them.

For years, tech industry players survived by out-featuring each other. If your product has 100 features, mine had to have 120. This is obviously not the same methodology Apple is employing. It is simplifying, and the market is drooling.

In the VoIP space, there have been thousands of software failures. But one of the biggest successes is **Skype**, because the company used simplicity and a fun and light interface where others used arcane user name addresses and passed along unnecessary complexity.

When will other vendors learn? At this rate it may be too late. I understand that many people hope **Google** will be the counterbalance, but Android to me is a poor copy of the iPhone OS.

We are entering a world of computing simplicity in which the number of partners in the walled garden ecosystem is commensurate with success. Few people saw this coming, but now that this new world order has been revealed, how will computing respond from the competitive threat Apple is now wielding on numerous industries?

Here is an excerpt from the above-mentioned story:

I've got a theory, and it's this: Steve Jobs believes he's gambling Apple's future – the future of a corporation with a market cap well over \$200 billion – on an all-or-nothing push into a new market. HP [has] woken up and smelled the forest fire, two or three years late; Microsoft [is] mired in a tar pit, unable to grasp that the inferno heading towards [it] is going to burn down the entire ecosystem in which [it exists]. **IT**

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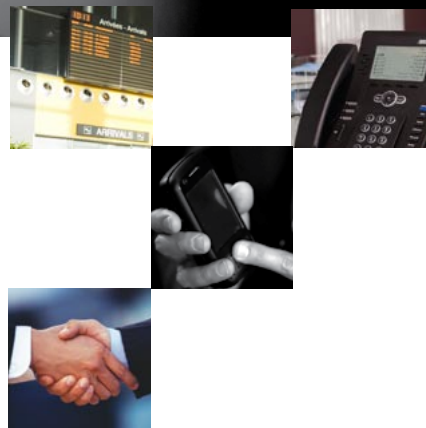


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N.J. School District Hits the Wall with Legacy Connectivity

But That Opens New Doors for Higher Bandwidth, Better Customer Service



It's amazing how a less-than-ideal situation can sometimes work out so beautifully in the end. That's the moral of this story, featuring Jeff Janover and the Wall Township Public Schools.

Under Janover's leadership as the director of technology, the district installed a private fiber network interconnecting the district's 12 buildings, including seven schools. The district had 175 applications loaded on an application server farm, and about 3,500 thin client appliances in service. And it quickly became apparent that the 3mbps ATM link and handful of PRIs for the PBX that the district had to the outside world wasn't going to do the job.

But the New Jersey school district was in the midst of a budget crisis, so Janover was asked to seek out some competitive bids. He did as he was told, all the while expecting the exercise would result in the district sticking with its existing service provider.

After getting a quote from Verizon, Janover called the local cable company, which referred him to its Optimum Lightpath business.

"They sent in a quote, and I at first thought 'They must be mistaken. There's no way the quote they had sent out, with the quote that I had gotten from Verizon, could be accurate,'" says Janover, who invited Optimum Lightpath in for a visit to discuss the bid.

Two representatives from Optimum Lightpath later stopped by and walked him through the quote line by line, Janover says.

Ultimately, Janover signed on with Optimum Lightpath for a 100mbps Ethernet connection with Internet voice minutes as part of the bundle. The school district is saving \$83,000 to \$85,000 per year over what they would have had to spend on a 45mbps connection alone from Verizon, he says.

If the difference in pricing weren't enough to convince Janover to make the change, however, the personal attention Optimum Lightpath offers might have done the job.

"The level of support and commitment was so great it really impressed me," he says, adding that whenever he calls for support he either gets someone live immediately or they return his call within five minutes. "I've never had a better experience with any vendor I've ever worked with."

Janover now marvels over the fact that he unknowingly put up for so long with terrible customer service and what he now realizes was antiquated pricing.

"We have been through years and years of neglect and fighting to prove we were a customer, to a situation where our account reps and tech reps are calling me on a regular basis and making sure that everything is going smoothly," he says.

"We were able to get our cutover done when it was only supposed to be a three-month process," he adds. "I kind of lit a fire under them ... and we cut about a month off of the three-month process."

As a result, Wall Township schools can now enjoy the benefits of high-speed data communications, including the ability to stream educational content from the Internet. And while the school district still is using an analog PBX from Mitel, Janover says it is very interested in replacing that with an on-premises IP PBX system, which could also leverage its Ethernet connection, in the not-too-distant future.

Mike Sevret, vice president of sales for New Jersey at Optimum Lightpath, says customers like Wall Township schools have been an area of focus for the service provider since about 2004, when the company started its vertical push.

"We take a lot of time, especially in the educational vertical, with customers, listening to what their pain points [are] and what they would like to see from a product standpoint in a perfect world," says Sevret.

That resulted in Optimum Lightpath putting together product packages with bandwidth that can scale and with packages that bundle Internet and voice and include economical, flat-rate billing, he adds. **IT**

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How Schools Can and Should Fit into Our National Broadband Plans

The United States is finally on track to develop a national broadband policy. Unfortunately, there are very few public resources available to carry it out. In this environment of limited government funding, the bang-for-the-buck question becomes paramount: What broadband policies will deliver the greatest value? While many focus on unserved and underserved areas, an equally important priority is to ensure that our community anchor institutions – our libraries, schools, and health care entities – have sufficient broadband capacity.

Why is providing broadband to community anchor institutions so important? Community anchor institutions provide vital, essential services to some of the most vulnerable and at-risk populations, including disabled, unemployed, low-income and rural Americans. Public libraries make wired and wireless broadband connections available to the public at no charge so that people can submit job applications, apply for e-government benefits, and complete school homework assignments. Primary and secondary schools as well as higher education institutions use broadband connections for distance learning, multimedia teaching applications, and data-intensive research. Hospitals and rural health clinics need high-capacity broadband to exchange diagnostic information and medical records, and to provide remote monitoring of out-patients.

Unfortunately, the private sector often cannot satisfy the broadband needs of anchor institutions. Because they aggregate traffic from hundreds of users simultaneously, anchor institutions need very high-capacity connections – from 10Mbps to 10Gbps – the type of connections often used by businesses. But community anchor institutions are usually non-profit and often government-owned; they cannot afford to pay business rates. Furthermore, anchor institutions are less likely to purchase video entertainment programming (i.e. cable TV) compared to households, so their needs are often overlooked by broadband providers that are focused on selling residential service bundles.

Fortunately, Congress recognized anchor institutions' need for high-capacity future-proof broadband connections when it enacted the American Recovery and Reinvestment Act last year. Section 6001(b)(3)

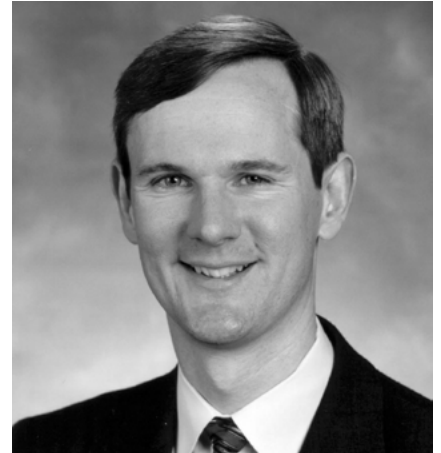
of that act directs the government to award grants to applicants that “provide broadband education, awareness, training, access, equipment, and support to — schools, libraries, medical and health care providers, community colleges and other institutions of higher education, and other community support organizations....”

Note that this language is not limited to unserved or underserved areas; this funding program was designed to benefit all Americans, including those in urban, suburban and rural areas.

The Broadband Technology Opportunities Program created by the ARRA is well on its way to fulfilling this Congressional mandate. The infrastructure program is focused on awarding grants to build high-capacity middle mile broadband connections to community anchor institutions. Many grants have been awarded to non-profit state research and education networks and private sector companies that specialize in deploying fiber capacity to anchor institutions. Significantly, these broadband facilities must be open to inter-connection so that surrounding homes and businesses (the general public) can benefit from this broadband deployment.

Despite the success of the BTOP program so far, the long-term prognosis for anchor institutions is unclear. According to our estimate, only about 20 percent of all anchor institutions are likely to benefit from the \$4.7 billion in funding allocated to the BTOP program. The BTOP program is set to expire on Sept. 30, 2010, and there is currently no plan to continue it.

To its credit, the FCC's National Broadband Plan begins to pick up where the



BTOP program leaves off. FCC Chairman Genachowski has eloquently explained the need for every community to have at least a 1Gbps connection to its anchor institutions by the year 2020. But the FCC did not identify funds to reach this important goal.

To build on the BTOP program and achieve the 1Gbps goal set out by the FCC, the federal government may want to consider creating a unified community anchor network. A UCAN could coordinate and expand capacity on existing municipal networks and state research and education networks, and build new networks where they do not exist. It also could work with the private sector and acquire broadband facilities more efficiently by aggregating the purchase of broadband facilities, which could lead to more affordable prices for anchor institutions.

Building high-capacity broadband to community anchor institutions can be the meta-infrastructure that enables telemedicine, distance learning, energy efficiency, improved traffic management, greater public safety, and many other essential services. A national plan to deploy high-capacity future-proof broadband pipes to every community anchor institution would provide a foundation for economic growth and improved quality of life for all Americans. **IT**

John Windhausen is coordinator of the Schools, Health and Libraries Broadband Coalition (www.shlbc.org). He can be reached at jwindhausen@telepoly.com.



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By Richard Jimmerson



ARIN's Guide to IPv6 Preparedness

Every device directly connected to the Internet needs an IP address. There are two versions: IP version 4, better known as IPv4, and IP version 6, aka IPv6. IPv4, the current version, holds 4,294,967,296 addresses, and about 92 percent of them have already been distributed. IPv6, the newer version, holds 340,282,366,920,938,463,463,374,607,431,768,211,456 addresses.

The issue is simple: IPv4 addresses are running out, and fast. The solution to the address depletion is IPv6. This seemingly endless number of addresses holds the future of the Internet, but it requires companies that use and distribute IP addresses to adapt their networks and systems to use IPv6.

The American Registry for Internet Numbers, or [ARIN](http://www.arin.net), is the non-profit corporation that manages the distribution of Internet number resources (IPv4 and IPv6 address space and autonomous system numbers) in Canada, many Caribbean and North Atlantic Islands, and the United States. ARIN participates in trade shows and conferences around the region to educate and inform people about issues facing the Internet community, the most critical of which is the rapid depletion of IPv4 address space.

Companies that use and distribute IP addresses must adapt their networks and systems to use IPv6. Nearly every enterprise organization relies on the Internet for some part of its core operations and services. To ensure these services can continue to communicate with everyone on the Internet, network infrastructure must be dual-stacked. Dual-stacking will ensure IPv4 and IPv6 users can see your Web site, use your Web-based services, and communicate with you via e-mail. These services may be managed through a vendor or internally. Either way, speak to your network operations support about IPv6 accessibility.

In addition to provisioning new customers using IPv6, there may be additional work to do to help make the transition to a dual-stack environment smoother. This may include establishing protocol translation and/or tunneling services for customers, ensuring software or hardware products that interact with IPv4 can also interact with IPv6, upgrading your capabilities to include IPv6 access to services for your customers, or simply promoting IPv6 awareness.

All organizations will need IPv6 address space to dual-stack their services. To connect to the IPv6 portions of the Internet, enterprises may require native connectivity from their service provider or through an organization that provides IPv6 tunneling services. It is important to take IPv6 support capability into consideration when making any new network equipment and/or software purchases. To upgrade your services to support both IPv4 and IPv6 you may need new equipment or firmware

updates to your existing equipment, as well as training for those interacting with this equipment and firmware.

Specific adoption needs and considerations will vary, and requirements will be different for each organization, depending on their network setup and the services they have deployed. Basic preparation may include:

- replacing any outdated equipment and software with IPv6-ready devices and applications;
- encouraging hardware and application vendors to support IPv6, specifically including IPv6 support requirements in RFPs and contracts;
- sending IT staff to IPv6 training seminars and encouraging them to read forums like the ARIN IPv6 Wiki, or to get involved in organizations like the Internet Engineering Task Force or the North American Network Operators' Group;
- talking to your ISP about getting IPv6 service or about tunneling IPv6 over IPv4; and
- designing your networks to allow for easy renumbering.

IPv4 addresses are running out, and fast. The solution to the address depletion is IPv6. This seemingly endless number of addresses holds the future of the Internet, but it requires companies that use and distribute IP addresses to adapt their networks and systems to use IPv6.

In order to draw attention to this issue and help community members engage with ARIN, we recently launched the new Team ARIN microsite, <http://www.teamarin.net>. This microsite provides updates on ARIN's outreach and educational activities throughout the region. The Internet community can use the Team ARIN microsite to learn about ARIN's whereabouts at trade shows and conferences, request documentation on IPv6, and find out how to help spread the word. The microsite also houses many educational materials available for public use to help educate and inform the community. Please visit <http://teamarin.net/education/> to learn more. **IT**

Richard Jimmerson is CIO for ARIN (www.arin.net).

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By Brough Turner



Enterprise Social Networking, Beyond the Enterprise

There's a classic study, "How Bell Labs Creates Star Performers" by Robert Kelley and Janet Caplan, that was published in the Harvard Business Review in 1993. In their studies, everyone they dealt with was smart. The first difference between star and middle performers was initiative, but No. 2 was work strategies for networking and self-management.

To illustrate, when a middle performer got stuck with a technical problem, they called various technical gurus trying to find out who might be able to help. What with voice mail and e-mail delays, that process typically dragged out. Star performers were different. They had already built a strong social network by doing favors for people, getting to know others' expertise and identifying the gurus. When a star got stumped, he or she already knew who to approach and was more likely to get a prompt reply. In short, professional networks were a key difference.

A lot has changed in seventeen years. With the explosion in accessible information and the advent of social networking applications, our connections are now ubiquitous and everlasting. You may not remain close to the same set of people throughout life, but you don't lose track of people or conceal your former connections from the world. Business associations persist across enterprises and throughout your career. For the next generation, elementary school friendships will still be visible at retirement – nothing is lost.

Persistent professional relationships are an advantage. At the same time, the enterprise IT department doesn't want you to carry corporate secrets with you when you move on. But your relationships are yours. IT doesn't control LinkedIn. What's more, they don't control Yammer, where a complete history of insider corporate chitchat remains visible to me long after I've left an organization. Personal and professional lives increasingly overlap, so enterprise interactions leak into public systems that are persistent. Most people assume their PSTN phone calls are not recorded, but when I use Skype on my home PC for a late night discussion with a sales associate in Asia, our IM exchange is persistent and outside the corporate firewall.

Once we assumed voice mail was ephemeral. Now we have voice mail to e-mail. Eventually, our entire life stream will be persistent, including not just text, but all media streams. Privacy is the issue, for individuals and for corporations.

Enterprise social networking applications provide privacy-enhanced versions of the tools employees need to be productive and are going to use in any event, but there is a limit to what an enterprise can do. In the end, we must depend on the professional conduct of our associates. Luckily, the Internet-enabled world holds us all to very high standards. **IT**

Brough Turner is co-founder of Ashtonbrooke Corp. (<http://ashtonbrooke.com>), a startup involved in wireless infrastructure.

Regulation Watch

By William B. Wilhelm and Jeffrey R. Strenkowski



The FCC's National Broadband Plan and Its Affect on VoIP

On March 16, 2010, after a 13-month study, the FCC released

"Connecting America: The National Broadband Plan," containing policy recommendations for achieving national goals identified by Congress. The plan recommends six long-term goals, many of which will undoubtedly affect VoIP providers, their markets, and the regulation of their services. Some of those goals include:

1. At least 100 million U.S. homes should have affordable access with actual download speeds of 100mbps and upload speeds of 50mbps.
2. The U.S. should have the fastest, most extensive wireless network of any nation in the world.
3. Every American should have affordable access to robust broadband services, and the means and skills to subscribe to them.
4. Anchor institutions in every community should have affordable access to at least 1gbps broadband service.
5. Every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.

6. Every American should be able to use broadband to track and manage their real-time energy consumption.

The plan also offers dozens of specific recommendations, which if implemented may significantly alter U.S. telecommunications regulation, including treatment of VoIP services.

The plan's recommendations for the FCC are expected to result in more than 60 action items, many of which will include opening or revisiting fundamental regulatory proceedings including, among others, inter-carrier compensation, interconnection, and universal service. Other recommendation areas that may affect VoIP providers include service outage reporting, cybersecurity certification, next generation 911 and location accuracy, special access, data reporting, disability access, and other proceedings.

Additional information on the plan can be found on Bingham McCutchen's Web site at <http://tinyurl.com/23znh6s> **IT**

William B. Wilhelm is a partner and Jeffrey R. Strenkowski is counsel at the global law firm of Bingham McCutchen LLP (www.bingham.com).

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By Rich Tehrani & Max Schroeder



A Simple, Affordable Business Continuity Strategy

Today's SMBs are faced with many challenges. Business continuity applications are crucial to a company's survival. However, the start-up costs and the need for specialized IT staff sometimes prevent or delay a timely BC deployment until it is too late. Fortunately, today's subscription-based service industry makes it easy and affordable to deploy a BC plan quickly. These solutions are generally referred to as [SaaS](#) or cloud computing. Some service providers support reseller channels to make it even easier for SMBs to acquire these technologies.

GreenAppX is a good example and, as the name implies, offers green solutions. All enterprise applications are accessed through a browser over a user's existing Internet connection. The company offers a wide range of choices, including best-of-breed applications from [Microsoft](#), Research in Motion (BlackBerry), Cisco and McAfee. Partnering with companies like AB&T Telecom allows GreenAppX to extend their solution portfolios even further yet retain the high level of security and reliability critical

for a BC solution. When a customer's business requirements change, they can simply add or cancel select services.

Subscription-based technology keeps start-up costs at a minimum and software applications now become a predictable monthly operating expense. Easy to budget, easy to implement and the time-to-deployment is very rapid.

Another advantage of subscription-based services is they are usually housed in secure, redundant data centers with SAS 70 Type II compliance and 128-bit AES encryption. Full 24x7 IT support including patches, upgrades, version management tasks plus anti-virus and spam protection are generally included as standard features. Some companies, GreenAppX included, provide direct customer assistance, thus making the process even simpler for customers and resellers alike. **IT**

Max Schroeder is the senior vice president of [FaxCore Inc.](#) ([www.faxcore.com](#)) and managing director of the DPCF.

Rich Tehrani is the president and group editor-in-chief at TMC, and conference chairman of ITEXPO.

Tech Score

By Jeff Hudgins



Developing a 'Smart Appliance' Strategy

As ISVs and OEMs rush to plan their cloud computing strategies, IT enterprises are looking to solve real business problems in the near term. Cloud computing is considered a disruptive technology as companies try to maximize their IT-related spending. Analysts report that more than 20 percent of enterprises are either piloting or implementing some cloud/utility computing solutions today and do not plan to own any IT assets after 2012.

Those ISVs and OEMs who have thus far successfully delivered solutions to the IT enterprise may well be wondering how cloud computing fits into their strategies.

My advice is ignore the term cloud computing and focus on how enterprises will consume applications such as storage management, security, CRM, or unified communications. Consider all the deployment methods and try mapping them to your value equation for clarity.

Software as a service and software-only solutions include applications that are tailored by the IT enterprise and delivered over the Internet or private cloud to eliminate the maintenance costs associated with hardware.

Infrastructure as a service allows IT enterprises to deploy applications (like Amazon Elastic Compute Cloud) in centralized data and network management schemes. In this instance the OEM or ISV can deliver the software application decoupled from the hardware by using a virtual software appliance.

Appliances in general, with their prepackaged, preconfigured software application along with a purpose-built hardware option, provide an elegant, scalable architecture for application deployments in a variety of environments. This can ease the provisioning time and tech support burdens for both the IT enterprise and the OEM.

Final Score

The IT enterprise will invest in new infrastructure equipment offering flexibility, while the OEM/ISV gains market share and increases profitability. Implementing a smart and seamless appliance strategy across all deployment models is a grand slam for the entire supply chain. **IT**

Jeff Hudgins is vice president of product management at NEI Inc. ([www.nei.com](#)).

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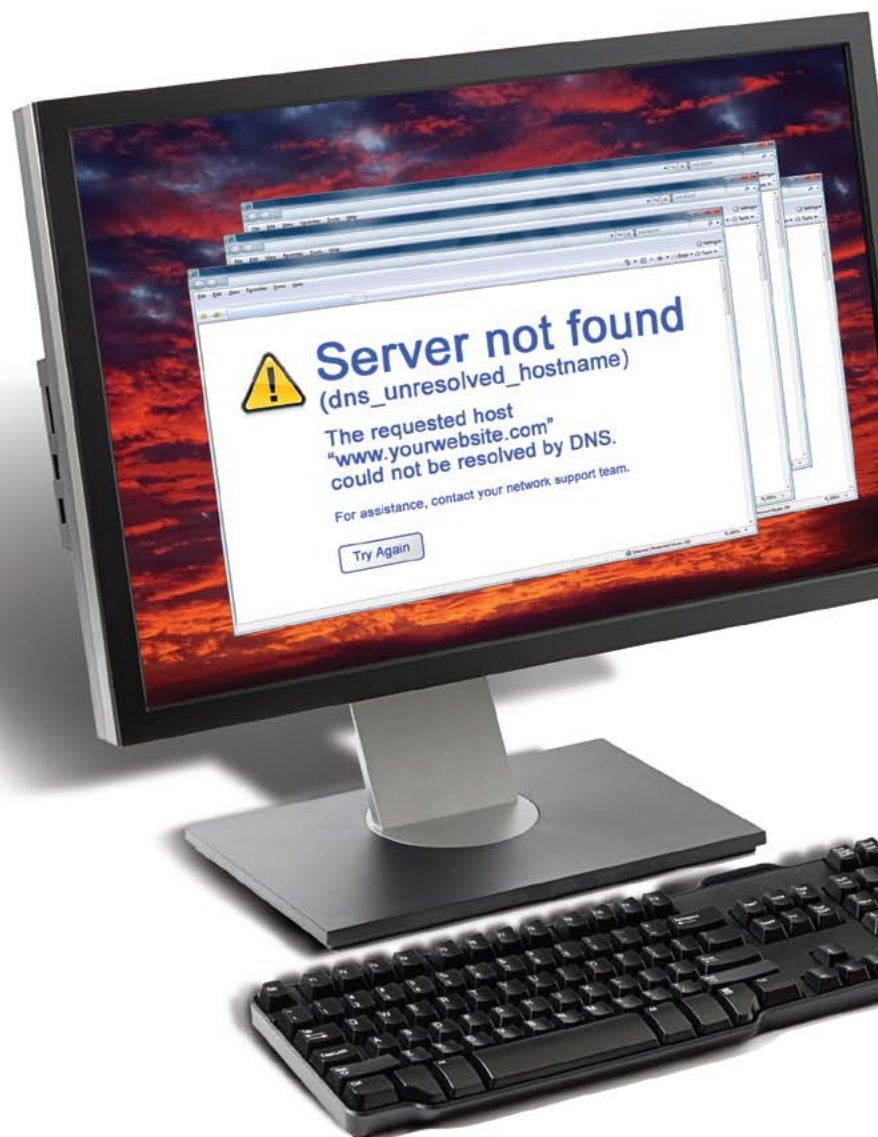
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By Alan Murphy



VMware: Watching Microsoft and Citrix Partner Up

In a previous virtualization column I discussed how the popularity of virtualization has a good bit to do with provisioning, orchestration, and management. Once a dynamic infrastructure supporting the virtual platform is in place it becomes much easier to provision and turn up new virtual machines and resources than it does to turn up physical resources because the infrastructure is still made up of physical resources: physical machines with real CPUs and RAM, physical networks with real cabling and ports, and physical appliances that are better suited to running on hardware. However, in the current data center model where virtualization is king, physical resources and virtual resources need to work together as one unit. Despite the explosive growth of virtualization over the past few years, this integrated management and provisioning component has been missing.

It appears that VMware would agree. In February VMware announced it would acquire a software suite from EMC called Ionix. Ionix is a data center management platform, geared toward managing physical assets in the data center and the core infrastructure, the same physical assets and infrastructure that VMware depends and relies on when provisioning new virtual instances.

VMware isn't the first major virtualization player to think about integrating virtual and physical asset management. The Ionix move is right in line with what we've seen from the other two virtual platform leaders, Microsoft and Citrix. Microsoft has long been a leader in complete data center management tools with its System Center suite of products: Operations Manager, Configuration Manager, and Virtual Machine Manager. System Center is able to manage all parts of the data center, physical and virtual, from hardware through deployed applications. While Citrix doesn't quite have the breadth of data center management tools that Microsoft provides, it does offer complete management solutions for all of its own products – including the Xen product family – also running the gamut from physical hardware appliances through applications. In the case of the Xen-based solutions, Citrix management tools also include delivering applications to users over the network and to the desktop. In other words Microsoft can manage the data center infrastructure today, and Citrix can manage the tools and apps that run on that infrastructure.

Over the past year or so, Microsoft and Citrix have made strides in working together in the DC management space, offering co-branded and integrated solutions that support managing each of their technologies through each of their respective management tools. If we focus on how those tools can work together to create an orchestrated virtual data center, then we're looking squarely at one major competitive force for asset management. With VMware's Ionix acquisition, now all three major hypervisor vendors can manage physical assets in the data center. In other words, the big players are looking beyond the hypervisor.

I'm guessing that a continued and deeper relationship between Microsoft and Citrix in virtualization is at the forefront of VMware's competitive strategy. If these two companies continue to build on that relationship, they will provide a very serious competitor to VMware in the enterprise and especially in the cloud. Both Microsoft and Citrix are making a push in the back-end services realm of the cloud: Citrix on the infrastructure-as-a-service provisioning side and Microsoft with the platform-as-a-service development side. IaaS and PaaS go hand-in-hand in the cloud, and the ability to provision them both on one platform would be a huge push for competing against VMware in the hypervisor market, not to mention the management space of provisioning and managing an entire virtual application stack in one location.

Provisioning systems and management are just the beginning. Microsoft and Citrix also could bring to market complete solutions for true application virtualization and streaming – the next step beyond server virtualization. The same tools and applications that run in Hyper-V in the data center also eventually could run on your iPhone through Citrix's consumer device support program, Dazzle, and they could all be managed through Microsoft System Center. An enterprise could manage virtual applications on end user iPhones side-by-side with end user desktops, and apply access and availability policies to those users as they move from their iPhones in a taxi, to their laptops on a plane, to their desktops in their office.

With VMware's Ionix acquisition, now all three major hypervisor vendors can manage physical assets in the data center. In other words, the big players are looking beyond the hypervisor.

That's not to say that neither Microsoft nor Citrix can compete on its own against VMware in the management space, and VMware is making slow but steady progress throughout the data center. But what starts as an integrated management virtualization solution between Microsoft and Citrix could lead to more of an integrated hypervisor solution down the road. And that could cause some major ripples in VMware's competitive lead in the enterprise and cloud virtualization market as the existing physical data center becomes an integrated component of the new virtual data center. ■■

Alan Murphy is technical marketing manager of management and virtualization solutions with F5 Networks (www.f5.com).

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By Steven Johnson



SIP Trunking with Microsoft OCS

SIP trunking with Microsoft Office Communications Server presents a unique challenge, one that's being faced by many enterprises today. It's a problem with a simple solution, but one that needs to be addressed in order for SIP trunking to be possible.

Microsoft OCS operates with the customer side facing TCP/IP. TCP/IP is one of the core protocols used in unified communications and allows for the reliable, ordered transmission of data.

SIP trunks, however, use UDP. The solution is to provide a seamless conversion of TCP/IP to UDP. This is easily possible with an enterprise edge device, such as a SIP-capable enterprise session border controller that is designed to handle this kind of protocol conversion. As an added benefit, the edge device can also provide security for the SIP traffic (in this case, VoIP).

Ingate recently demonstrated this type of solution with an installation for Northern Michigan Substance Abuse Services Inc. NMSAS deployed SIP trunks from BBTelsys, a nationwide provider of Internet telephony and multi-dwelling unit triple

play services. NMSAS was using Microsoft OCS 2007, and encountered the problem of TCP/IP-UDP incompatibility.

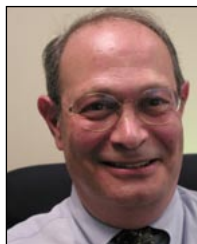
To address the issue, NMSAS deployed the Ingate SIParator with the Ingate SIP Trunk Software module, which works hand-in-hand with the BBTelsys service and NMSAS' existing Microsoft OCS solution. The SIParator provided the crucial integration component necessary for SIP trunks to work with the IP PBX.

The industry as a whole is seeing a surge in requests for SIP trunking solutions in a Microsoft OCS environment. We're seeing a spike in inquiries – and our VAR partners tell us the same thing. Microsoft OCS is a popular SIP-based PBX with a large installed base of users. SIP trunking is in demand as well, as a way to deploy VoIP quickly and easily, and with a very fast return on investment. Microsoft OCS users want to leverage SIP trunks now. This solution addresses the incompatibility issue – and adds significant value to the installation – immediately. **IT**

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

Thinking IT Through

By David Yedwab



Choosing Between UC ROI and TCO Tools

SMBs are approaching UC deployment in a deliberate manner befitting the financial struggles many are experiencing. They see UC as a pathway for addressing several key business pain points, such as:

- How will the company be able to respond to customer demands for higher levels of personal service and responsiveness?
- How will it increase customer loyalty and extract maximum value from customer relationships?
- How will it achieve competitive differentiation?
- How will it acquire new customers while retaining existing ones?

SMBs must address such issues as: cash preservation and low overhead, predicted smooth cash flow, time to market, limited IT staff, controlled feature/function rollout, technology refresh and end-of-life disposal. In other words, should they buy, or go with a leased UCaaS solution? The way to approach the UC decision has been pitched as either through a UC ROI or TCO tool or modeling approach.

The common understanding of the tradeoff between TCO and ROI is between the hard costs including acquisition, installation, integration, operations and end-of-life UC

system removal, and a full business case that examines the net present value, associated internal rate of return and discounted payback period of alternative cash flows arising from the set of the alternative business decisions presented.

In fact there's no contest here. BDMs, CIOs and CFOs are being paid to collaborate and assess all project costs and benefits, including the opportunity costs associated with forgone opportunities across the portfolio of candidate projects. The correct issue is not one of TCO vs. ROI as a contest of hard costs vs. soft benefits, but one of effectively managing the risk associated with all costs and benefits involved.

To achieve the best solution the SMB should partner with a VAR/consultant who is both conversant in the hardware, integration and managed services aspects of UC and collaboration solutions, and the use of predictive analytics so that risk assessments can be properly accounted for. **IT**

David Yedwab is a founding partner in Market Strategy and Analytics Partners LLC (www.mktstrategy-analytics.com).

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By Hunter Newby



CENX - Carrier Ethernet Interconnections with a Voice Exchange

A new entrant to the Ethernet exchange world has arrived – [CENX](#). Carrier Ethernet Neutral Exchange is the proper name and what really defines this business model is the service of facilitating interconnections between Ethernet transport networks. This is done through a common Layer 2 Ethernet switch as VLANs between the carrier participants. Logically, each must be an operator of an Ethernet transport network, or at least have an Ethernet interface, in order to participate.

The CENX model is unique in that it focuses on a component of Ethernet that to date has not been developed – pure transport. Other Ethernet-based switching platforms have been around for a long time, such as generic Internet Exchange Points for Internet protocol exchange at Layer 2, but CENX is not focused on IP peering. The need that CENX proposes to address is that of last-mile to long-haul transport interconnections for Ethernet networks, but the one-to-many effect of Ethernet-based VLANs over the old-world, linear TDM connections is what is being leveraged to create value just as it is in the IX world.

From the CENX Web site:

CENX services include: flexible physical and virtual interconnect, expert service alignment, and real-time service management, together with an overarching CENX Market, a member-tailored marketplace for buying and selling service providers. CENX interconnects service providers' Carrier Ethernet networks around the world and enables vast revenue opportunities, dramatic timelcost-saving and Carrier Ethernet global ubiquity.

IP peering can certainly fit within this if ISPs are allowed and choose to connect to the CENX Ethernet switch, but IP peering comes with its own set of requirements that function at higher layers of the OSI stack, and clearly there are many players already in that space. It is unclear at this point as to whether or not the existing IXs of the world (LINX, AMS-IX, DE-CIX, etc.) can reverse integrate the Ethernet transport connection business model, or would even desire to. Certainly the ability for carriers to provision VLAN-based cross-connects for Type II Ethernet transport circuits adds significant value in reducing time (not having to run physical layer cables) and in many cases costs (lower monthly recurring fees by avoiding physical layer cross-connects). CENX is a shift not only in the technology of interconnecting, but also in the business model of interconnecting itself.

Beyond the potential for IP peering within a pure Ethernet transport switch CENX has positioned the service as a voice exchange.

From the CENX Web site:

CENX enables competitive carriers transitioning to IP to exchange traffic with one another on a highly efficient, tandem-like carrier-class Ethernet platform, without the margin-eroding charges and connection limitations of legacy tandems and TDM direct connects.

Here again we see the one-to-many effect of the VLAN. Since Ethernet is the root of the transport method we can assume that the voice being exchanged is VoIP. This statement is ultra-conservative

and overly obvious, but made just the same. Given that, upon further examination we see that this voice exchange service is really at Layer 2 and does not actually possess any voice switching functionality at all. This is not such a bad thing, but needs to be clearly spelled out as many people get confused as soon as they hear the word voice. The confusion rests with those that believe the only business model for voice is to bill users per minute. This is not correct and mindsets change as the weeks pass, but we are all not entirely there yet.

If this voice exchange were to be put in to the category of a VoIP peering platform it might be best understood if it were compared to two other well-known VoIP peering platform services, [XConnect](#) and The Voice Peering Fabric. The most notable differences are that XConnect and The VPF both deal with ENUM (E.164 Number Mapping) for endpoint resolution to facilitate true multi-lateral VoIP peering. The VPF also has an SRV registry, which uses e-mail addresses for VoIP calls; separately XConnect also provides a transcoding flavor of peering to content with mismatched gateways using different VoIP protocols as well as a VoIP spam (SPIT) protection service. These are all very much VoIP applications and not strictly voice interconnection.

The VPF is unique in that it is a true, globally-distributed peering exchange. In the IX world, distributed means that the IX has its own Layer 2 (usually wavelength, but could be Ethernet) connections linking two or more Ethernet switches that are distributed around the world in different locations. The benefit to this is that a user connected to one of the IX points can peer IP traffic with a user connected to another IX point, and they do not need a dedicated circuit between them. The IX distributed circuit(s) take care of that.

With the CENX model it would be very difficult, if not impossible, to be distributed in the IP sense since what is being facilitated is in fact not IP, but rather Layer 2 circuits. For CENX to have its own circuits between the CENX Ethernet switches would defeat the purpose of connecting its members for that function – at least on the long-haul links between the carrier hotels. Although this may become a value-add for enterprise customers at some point, thus allowing them to only have to deal with sorting out last-mile tails in major metros, the carriers all do this themselves with most, if not all, of the major carriers having plenty of capacity in place already on these routes.

The real value of the CENX is the ability for the Ethernet transport carriers that all have capacity on the same long-haul routes to connect seamlessly to last-mile Ethernet transport providers in metros. This will speed up the provisioning process and reduce costs dramatically. CENX has initially launched in New York, Chicago and Los Angeles and also has developed a partnership with Interxion in Europe to add London, Amsterdam and Paris. As the major carriers connect and begin to realize the benefits for CENX at the carrier-interconnect level, it will not be long before the CENX is driven to many new global markets based upon the demand for efficiency. Go CENX! **IT**

Hunter Newby is CEO of Allied Fiber (www.alliedfiber.com).

Visit the Voice Quality Community

On TMCnet

While the cost-saving benefits of VoIP are well documented, voice quality has emerged as one barrier to adoption, for businesses and consumers alike. Now, consumers have access to a device from Ooma that provides free U.S.-based telephone calls and advanced telephony features for superb voice quality.

Ooma's appliance offers exceptional voice quality and the reliability of a traditional phone service, but at a fraction of the cost. You don't need a headset. You simply connect the device to your high-speed Internet and your existing phone, and that's it. You're ready to start calling and experience Ooma's great voice quality.

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- Get access to case studies detailing successful deployments of Ooma's products.



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By Elaine Cascio



Five Things You Can Do to Improve Your Customer Experience

As a customer advocate, I'm happy to hear so many companies talk about the importance of customer experience. But how many are really taking steps to improve it across all channels?

One thing that's key is developing a clear strategy based on your vision and goals. But if you're not there yet, here are five ways to turn up the volume on your customer experience today.

Use the information you ask callers for in your IVR.

Reaching a customer service rep who asks for an account number after it's been entered in the IVR is a top pet peeve. If you don't have CTI, at least display the account number on the CSR phone. And make sure that reps use the information – change management is a critical part of introducing any new process.

Make customers feel valued.

Use information you have about the customer (upcoming flight, claim status) wherever possible to personalize the experience and build customer intimacy.

Give customers a chance to succeed at self service.

On the Web, don't wipe out all the data entered just because

customers accidentally hit "return" before they are done. There's nothing more frustrating than having to enter address and credit card information for the second time. And don't bounce customers out of the IVR prematurely.

Make sure time outs are long enough for the average caller to enter data.

Usability testing will help you get it right.

Don't make your customers feel stupid.

Make sure that error treatment on the Web, kiosks, IVR and other channels is helpful and forgiving.

Make customers feel like they're dealing with the same company, regardless of channel.

Stamp each and every experience with your company's brand.

Some of these may seem like small changes, but the improvements in customer experience (and quite possibly your bottom line) can be substantial. **IT**

Elaine Cascio is a vice president at consulting firm Vanguard Communications Corp. (www.vanguard.net).

E911 Watch

Building Support for E911 – It Takes a Village

By Nick Maier

Building support inside your organization to implement E911 is an important task. There are multiple stakeholders within your organization that will be affected in some way by the implementation of E911, and it is important to explain the project to them, identify how E911 will affect them and gain their support. Not only does this approach ensure success in the implementation phase of the project, but it is often the most important success factor in obtaining executive and financial approval to move forward with an E911 project.

Corporate Finance

The corporate finance department has a keen interest in how an E911 solution will be purchased. If, for example, your CFO has a distinct preference for using an operating lease vs. a capital purchase or capital lease, you can increase your chances of approval by presenting an E911 solution priced accordingly.

Corporate Counsel

Corporate counsel should be highly attuned to E911 compliance issues. If your company or enterprise is located in a state that has E911 laws or regulations, make sure your corporate counsel is aware of the state or county laws.

Public Safety/Security

E911 can improve emergency response within your enterprise or campus by improving on-site security response times and by directing emergency responders to the exact location of an 911 emergency.

The public safety and security organization can provide specific problem definition and metrics that will allow you to quantify the risks and issues that your enterprise faces from not having E911.

Real Estate and Facilities

These departments control the physical building infrastructure and are important partners for supporting your project and helping you maintain E911 on a go forward basis. It is important that you work with them on location definitions and developing a common nomenclature for naming buildings and locations within buildings.

Information Technology

The IT organization may have the largest impact on your E911 strategy and project plans. Depending on your voice technology status regarding voice over IP, TDM, and unified communications platforms, the IT department needs to be your willing partner in the development and support of E911.

Telecommunications

The telecommunications department is traditionally tasked with implementing E911 to support the voice network. The telecommunications department must be prepared to provide the leadership, the business case, and present the liabilities, risks and regulation surrounding E911. **IT**

Nick Maier is senior vice president of RedSky Technologies (www.redskyE911.com).

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Alcatel • Lucent 

By Peter Radizeski



Net-Head Part II

Last month I wrote about the shift in mentality between traditional Bell-head telco types and the data-centric net-head. In a move that can be considered net-head-ish, everything is moving to the cloud, including voice.

That's right, hosted PBX is now cloud communications.

When Thomas Howe is discussing voice mashups, PBX hooks some to mind – taking an application and adding voice, like click-to-call or text-to-voice.

Developers have taken it a step further with attempts to virtualize Asterisk boxes – the first step toward PBX in the cloud because what is virtualization but making an application available through a server cluster platform.

The Cloud Communications Alliance launched nationwide high-definition enterprise voice and data network in the IP cloud – ostensibly for HD voice peering, but it is a migration of the hosted PBX into the cloud. ITSPs will now be cloud communications providers. Voice is just one application run-

ning on the PBX. Presence, conferencing, and the host of other UC parts will just be modules and add-ons to the basic voice app you get from your SIP provider.

Even the FCC states that mobile access of applications will become dominant. It's not just Facebook and Twitter that folks want to access from their mobiles. The cloud is becoming more important to our daily interactions with data. Bell-heads can't help you here. This environment needs IP-centric net-heads to design, build and maintain these data systems and networks.

It isn't just about the servers or the data centers or the WANs or Internet backbones. It's about reliability, up time, security, access, back up, redundancy, XHTML/WML programming and an incredible amount of data storage (that is increasing exponentially daily). Being able to see this whole ecosystem will be the first success step for the agent in the net world. Everything is an application. And with that an agent has a huge opportunity for sales. **IT**

Peter Radizeski is head of telecom consulting agency RAD-INFO Inc. (<http://rad-info.net/>).

<http://tmcnet.com/27946.1>

TNCI Offers 20% Customer Discount

TNCI continues to incent agents with aggressive pricing on Sprint MPLS loops and ports along with special bonuses and sales promotions. Through the end of this month TNCI will offer customers a 20 percent MRC discount over the 2 year term on all Sprint MPLS loops sold within approved CenturyLink (formerly CenturyTel/EMBARQ) territories. In lieu of the customer discount agents may opt for an additional 20 percent residual on those local loops. Also, through June 30, TNCI agents can earn cash bonuses of as much as \$250 per port for Sprint MPLS port sales.

www.tncii.com

<http://tmcnet.com/27782.1>

EchoStar Signs Pace as Reseller

Pace International, a provider of satellite and IPTV hardware and content, has joined the EchoStar's ViP-TV Reseller Program. ViP-TV claims to deliver the largest selection of HD IPTV channels and the fullest mix of cable networks, local channels, sports, music, and international programming. It does that via a small, low-cost head-end solution.

Vernon Smith, senior vice president and general manager of ViP-TV for EchoStar, says his company is excited to land Pace as a ViP-TV reseller, as the company has a unique set of integration skills to drive penetration of the solution.

www.echostar.com

www.paceintl.com

<http://tmcnet.com/27783.1>

Master Agent Deal Puts Carrier Source on New Edge

Carrier Source, a telecommunications management company specializing in business services, has entered into a master agent agreement with New Edge Networks, the managed services business communications unit of EarthLink Inc. By partnering with New Edge, Carrier Source and its subagents gain access to a fully managed MPLS network, in addition to New Edge's sales, engineering and project management support. Carrier Source specializes in retail business customers with 50 or more locations, many of which are looking to roll out, replace or grow their broadband connectivity.

www.newedenetworks.com

<http://tmcnet.com/27784.1>

TBI Wins Accolades

Telecom Brokerage Inc. executives recently returned from Mexico where they attended the XO MVP Event for the top 3 percent of agents and their guests. While there, TBI also picked up a third place award for revenue generation. TBI is a master agent for telecom services such as Internet, data, local, long-distance and managed services.

www.tbicom.com

www.xo.com

<http://tmcnet.com/27785.1>

New Technical Sales Organization Launches at ClearOne

ClearOne plans to offer pre-sales support through its new technical sales organization for NetStreams resellers, distributors and other partners. Many companies have either down sized or eliminated this level of support, says ClearOne. The new technical sales staff includes Cisco certified engineers, as well as CEDIA and ICIA trained AV professionals to assist with pre-sales activities including system design, system evaluation, configuration, training, and product education for both commercial and residential resellers.

www.clearone.com

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www.campaigner.com

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Business Automation Software Companies Address Managed Services

Managing all the internal and external jobs and workflows at an IT company can be a daunting task. But business automation software companies like ConnectWise and Tigerpaw Software Inc. help networking, telecommunications, and systems integration companies manage their various processes. Both companies, which have close relationships with the channel, recently have made some significant changes, as well as introduced new initiatives to help better address marketplace requirements, such as needs related to the emergence of managed services.

Tigerpaw Software this spring named as its president James Foxall, previously senior vice president at the business software company. James is the son of Dave Foxall, founder and CEO of Tigerpaw, who remains at the company in an advisory role.

"I have been with Tigerpaw in some capacity since its inception, and I've enjoyed being a part of its growth and evolution," says James. "While the last 25 years have been very successful, the best years are still to come. I have never seen more opportunity for our company, and I look forward to leading Tigerpaw to even greater success through customer-driven software design, communities, professional services, and a host of new initiatives that we will be revealing soon."

Tigerpaw sells a software suite that helps somewhere between 1,200 and 1,500 VARs and other companies that sell telecom and IT solutions and services today manage their businesses on a variety of fronts – from managing prospects, to generating quotes, managing their employees and materials, and keeping tabs on what's happening with their customers' services. The family-owned company, which has about 44 employees, last year had more than \$5 million in revenues.

The company counts B&L Telephone, Carousel Industries, CTS of Sparta, Decision Digital, Decision Systems Plus, Protel Networks, Tops Telecom and Worldlan Technology among its customers.

Tigerpaw also recently extended its relationship with Technology Assurance Group, an

international organization of independently-owned unified communications providers representing \$400 million in annual sales. Tigerpaw hopes to automate functions such as MSP integration, TAG's Current Technology Assurance Plan (better known as C-TAP), TAG's Seven Step Sales Process and more.

"C-TAP has revolutionized the way telecom equipment and converged applications such as VoIP are deployed in the marketplace," says Ginger Clay, director of marketing at Tigerpaw Software. "This will provide the selling tools their members need to become more efficient in day-to-day operations and to better compete in today's marketplace."

Additionally, the younger Foxall has been working lately on allowing Tigerpaw customers to take a more active role in the company's software development by creating a customer advisory group.

"I personally run those meetings, and they're incredibly productive," says Foxall, adding that the group meets about once a month.

Foxall – who has written more than 14 books on Microsoft technologies, including "Practical Standards for Microsoft Visual Basic" for Microsoft Press – says one of the big changes we're seeing in the market is the move to managed services. For example, he says, a Tigerpaw customer might want to offer its customers a managed server service. However, the end user customer in such a scenario might want to make changes over time. As a result, the Tigerpaw customer also will need to adjust its network and records to ensure



Tigerpaw's James Foxall

billing remains accurate over time. Tigerpaw software enables that, he says.

Tigerpaw not only makes sure correct invoices are provided, it also manages ticketing and offers a remote management tool that can help a service provider watch to see if disk space on a particular server is running low, for example, and use that information to trigger the appropriate response, Foxall explains.

As for [ConnectWise](#), it's a Tampa, Fla.-based company that's been around since 1982. The company offers IT services companies software that helps with CRM/contact management, ticketing and more.

Earlier this year the company launched ConnectWise Capital, which is now the funding arm of ConnectWise. Armed with \$20 million, the new entity will incubate innovative solutions to be sold exclusively through the IT channel.

"Making these investments is another way ConnectWise can nurture and empower innovative suppliers to the IT nation," says ConnectWise Co-founder David Bellini. "We will be introducing our partners to new and unique companies that will help strengthen their businesses by creating new market opportunities for them." **IT**



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By Larry Levenberg

UC is Even More Beneficial to Post-Recession SMBs

It is said that small- and medium-sized businesses feel the impacts of a recession earlier than large companies, but they also recover faster. Well here's a newsflash: We're in a recovery, and SMBs are starting to buy again, albeit with a critical eye. This is good news for the channel, because unified communications lends itself easily to a positive discussion around improved efficiency and return on investment.

Better news still, SMB executives have more than likely heard about UC by now. Many of them, however, are still unclear about whether their organizations actually need it. While enterprises of all sizes can leverage UC for improved communications efficiency, SMBs can use it to respond to their unique set of challenges. As companies emerge smarter from the recession, SMBs can leverage UC as a practical tool to increase productivity and focus on strategic growth opportunities.

Those familiar with UC know it consolidates different communication modes (voice, data and video) and provides anywhere, anytime access to applications and resources through a single interface. It adds real-time status and availability capabilities via presence to each communication or collaboration application. It also reduces management and maintenance costs through the integration of voice, data and conferencing.

While UC benefits enterprises of all sizes, its greatest value for the SMB lies in its ability to help users multitask more efficiently. Employee roles at SMBs tend to be a lot less defined than they are in larger firms. As a result, SMB employees perform different tasks that cover many different areas of responsibility relying – for the most part – on disparate, antiquated systems to manage and transition between them all.

In the age of information overload, UC improves collaboration, providing tools that bring users and information together. The typical set of employee communication tools includes a cell phone, desk phone, e-mail and fax. UC pulls together all these different modes of communication, allowing users to access messages from them all from a single desktop or mobile interface. Presence allows users to locate the people they need, when (and how) they need them; and, voice and video collaboration makes it easy for them to access, share and use information. By breaking down communication silos, UC makes it easy for SMB employees who wear different hats to switch from one task – or role – to another and get more done, faster.

Mobility is another one of UC's key components that responds to current SMB trends.

According to IDC¹, SMBs' adoption of converged, mobile devices and services will drastically increase through 2012,

indicating a drastic increase in the segment's mobility. UC also allows users to move seamlessly from one mode of communication and device to another, based on where they are and how they would like to communicate. This makes it easy for employees to get more done while traveling, working from home or other remote locations.

While UC is certainly a worthwhile investment for competitive advantage, SMBs should consider it the next step — rather than the endpoint — to a much higher communications transformation within the organization. As the pace of business gets faster, UC sets the foundation for communication-enabled business processes, which allow SMBs to streamline workflows and more quickly communicate critical information associated with employees, customers, partners and suppliers.

Roles-based communication takes CEBP a step further by coordinating solutions based on the specific roles employees play within specific processes. It enhances critical intelligence faster so that employees can innovate, make decisions and close deals sooner.

We're in a recovery, and SMBs are starting to buy again, albeit with a critical eye. This is good news for the channel, because unified communications lends itself easily to a positive discussion around improved efficiency and return on investment.

SMBs survived the economic downturn by doing more with less, improving productivity and focusing on strategic growth opportunities. UC provides the most effective collaboration and communication tools available to help SMBs increase productivity, customer satisfaction and response to a more mobile workforce. As SMBs search for new ways to cope with the results of the new economy, leveraging UC helps them improve responsiveness as well as growth and propel business to new levels. **IT**

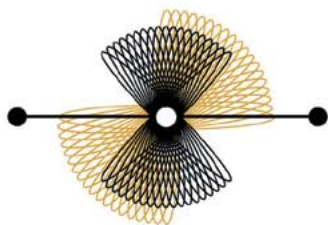
1 IDC. "Worldwide SMB Converged Mobile Device 2008-2012 Forecast and Analysis." 2008.

Larry Levenberg is vice president and general manager of national channels at NEC Corp. of America (www.necam.com).

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<http://tmcnet.com/27667.1>

Xobni Sets Out to Raise \$16.2M



A social networking outfit called **Xobni** is raising \$16.2 million in a new round of funding. Xobni sells a software plug-in that enables people to see social connections in their e-mail. Khosla Ventures and RRE Ventures reportedly led this round, which has raised \$11.3 million thus far, according to at least one report on the matter.

www.xobni.com

<http://tmcnet.com/27668.1>

Cloud Storage Platform from Mezeo Targets Enterprise

Mezeo Software now offers a cloud storage platform for the enterprise. The company already made available a similar platform to the IT service provider market in December 2008. The new Mezeo platform for the enterprise is expected to be generally available starting this month.

www.mezeo.com

<http://tmcnet.com/27671.1>

Hosting.com: Security is No. 1 Obstacle to Cloud Adoption

According to a report released from Hosting.com, security is the top obstacle that cloud providers need to address with their clients. Over the past 12 months, security measures for cloud hosting users have improved significantly as a result of advancements in network, microprocessor and virtualization technologies, however, the paper reports.

www.hosting.com

<http://tmcnet.com/27670.1>

Primus, Velocity Join Forces in Canada

Velocity Technology Solutions has partnered with Primus Telecommunications Canada to expand its hosting services into Canada. Primus Business Services is a national communications provider offering a full suite of collocation and managed hosting services to more than 40,000 Canadian companies. Velocity is a provider of cloud-based enterprise software hosting, application management and consulting services.

www.primus.ca

www.velocity-inc.com

<http://tmcnet.com/27673.1>

FoIP Solution from Sagem-Interstar Integrates with Cisco Router

Sagem-Interstar recently unveiled its latest fax over IP solutions aimed at small to mid-size organizations and branch office deployments. The application-certified fax solution runs inside a **Cisco** Integrated Services Router Generation 2 and Application eXtension Platform release 1.5. The patented XMediusFAX AXP solution offers a cost-effective and efficient means for mission-critical enterprise faxing from the office, home, or even on the road, according to the company.

www.cisco.com

www.sagem-interstar.com

<http://tmcnet.com/27674.1>

ALU Unveils Smart Desk Phones

The My IC Phone from Alcatel-Lucent will offer access to multimedia communications capabilities and Web applications to create personalized mashups or industry-tailored applications. The phones will likely be available before the end of the year.

www.alcatel-lucent.com

<http://tmcnet.com/27675.1>

IBM, Verizon Keep It in the Vault

Verizon and **IBM** have expanded their relationship to deliver Managed Data Vault, a new private cloud service that provides secure daily backups and fast recovery of enterprise information. The new solution, available from both the companies, is designed to automatically transfer data from a client location to a specially designed off-site data center via Verizon's high-speed private network.

www.ibm.com

www.verizonbusiness.com

<http://tmcnet.com/27676.1>

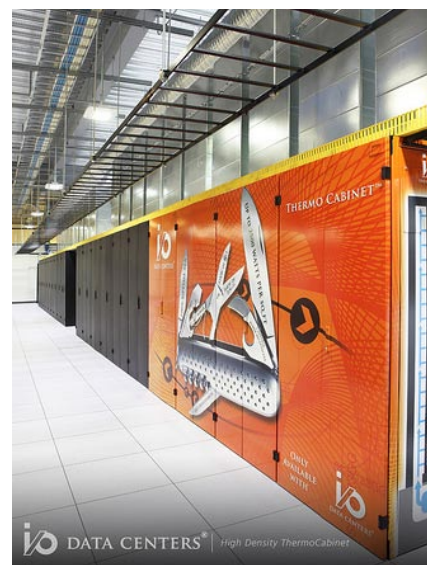
Broadcore Delivers Unified Global Presence for U.S. Businesses

Broadcore, a provider of business-class hosted unified communications, has announced the enablement of unified global presence for its U.S.-based business customers. This allows them to completely integrate the communications of their U.S. offices with their regional offices anywhere in the world. Businesses can spread the Broadcore service offering including hosted unified communications services, VoIP, conferencing, messaging services, call center, mobility solutions, and other communications solutions while using local telephone numbers in their regional international offices.

www.broadcore.com

<http://tmcnet.com/27672.1>

Davit of i/o Data Centers: AZ is Hot Location



Arizona is one of the top locations for data center operations, and the industry has witnessed tremendous growth. Greg Davit, channel business development manager for i/o Data Centers, provider of wholesale collocation and data center solutions, says the abundance of power and Internet connectivity in Arizona, as well as the lack of natural disasters, create an environment that provides a cost-effective, well connected and safe environment for data centers. I/o Data Centers sees a large percentage of its clients come from out of state, due to the attractive geographic, business and IT climate that exist in Arizona.

www.iodatacenters.com

<http://tmcnet.com/27657.1>

Actelis Innovation Enables Ubiquitous EoC



New advancements from Actelis Networks around Ethernet over copper will enable EoC to be as ubiquitous as previous, widely-used, network technologies like frame relay. That's the word from Joe Manuele, senior vice president of worldwide sales and customer service at the supplier. The latest release of the software for the Actelis EoS solution includes new dynamic rate boost and enhanced dynamic spectral shaping technologies that will extend the reach and bandwidth of Ethernet over copper and address potential interference issues.

www.actelis.com

<http://tmcnet.com/28301.1>

5G Monthly Cap Pulled by T-Mobile

T-Mobile will pull the 5 gigabyte-per-month cap on its mobile broadband service, part of an effort to push its HSPA+ network, which can deliver data speeds of up to 21Mbps in the downstream. Instead, T-Mobile will rate-limit access after the 5-Gbyte cap. The big unknown is what T-Mobile USA means by rate limit. Clearwire and Sprint are the only firms currently offering a truly unlimited wireless broadband service, and the T-Mobile USA plan likely is aimed at blunting Clearwire's advantages in the no cap area.

www.clearwire.com

www.sprint.com

www.t-mobile.com

<http://tmcnet.com/28302.1>

Service Provider Outsourcing Continues Ascent

Worldwide, telecom service providers paid network equipment vendors \$50.4 billion in 2009 for outsourced services, and the outsourced services market is forecast to grow to \$73.2

billion by 2014. "As telecom service providers continue to operate in a low single-digit revenue and capped capex environment, they will be forced to outsource more and more tasks until only customer care, sales, marketing, and branding become their core business," explains Stéphane Téral, Infonetics Research's principal analyst for mobile and FMC infrastructure.

www.infonetics.com

<http://tmcnet.com/28303.1>

China Mobile Taps ZTE for IMS

ZTE has been selected by China Mobile to deliver its IMS core network in key Chinese provinces. China Mobile's commercial IMS network will consist of 1.4 million lines. It will allow China Mobile to deliver fixed voice and multimedia services to individual and enterprise users.

<http://www.zte.com.cn/en/>

<http://tmcnet.com/28304.1>

VocalTec Outfits Ukrainian VoIP Provider

Telecommunication Group Vega has deployed VocalTec's solutions for the provision of Class 5 VoIP services across five regions in the Ukraine. The project was concluded in partnership with Priocom, a Ukraine-based systems integrator.

www.vocaltec.com

<http://tmcnet.com/28305.1>

Test Solution from Ixia is High-Density Unified Platform

Ixia has introduced a new native fiber channel test solution for network equipment manufacturers, enterprise data centers, information and storage service providers, and cloud computing services. Providing both FCoE and fiber channel interfaces, converged traffic performance tests, and real I/O performance testing, Ixia's converged data center test solution is a high-density unified platform. While the fiber channel interface module's four- or eight-port variants can be dynamically programmed to 2, 4, or 8Gbps, Ethernet interfaces can operate at speeds from 1 and 10Gbps.

www.ixiacom.com

<http://tmcnet.com/28305.1>

Hosted Provider Alteva Expands UC Offer

Alteva has connected its hosted voice and messaging services with the Microsoft Communication Services product suite, including Microsoft Exchange, SharePoint and Office

Communications Server. Alteva is essentially offering a hosted unified communications platform that offers hosted Exchange, hosted SharePoint, and hosted OCS.

www.altevatel.com

<http://tmcnet.com/27663.1>

Coalition Urges FCC to Reclassify Broadband

Net neutrality advocates have signaled their support for the FCC to reclassify broadband to bring it under FCC regulatory control. The Open Internet Coalition, which represents a group of major Internet stakeholders including Skype, Google, eBay, Amazon, Netflix, TiVo and Facebook, held a press conference this spring asking the FCC to reclassify broadband as a telecommunications service. The FCC currently classifies the Internet as an information service.

www.amazon.com

www.google.com

www.skype.com

<http://tmcnet.com/27658.1>

Telefonica Taps Movius

Movius

Movius Interactive Corp., a major player in messaging, collaboration and mobile media solutions, has signed a multi-year, multi-national agreement with Telefonica International. Thanks to the pact, Telefonica will be the first carrier to deploy Side-Line Service in Latin America.

www.moviuscorp.com

www.telefonica.com

<http://tmcnet.com/27664.1>

RBOC Seeks Broadband Stimulus Funds

Qwest is asking for \$350 million from the federal government for a \$467-million project that spans its 14-state coverage area, to build out broadband to more than 500,000 homes, schools, businesses and hospitals, providing download speeds of 12Mbps to 40Mbps. Without the funding, Qwest suggests it is unlikely to upgrade broadband access in these communities. The communities Qwest wishes to upgrade are similar to many others scattered across rural America: There actually is not a typical business case for such investments, which is why such areas typically have received subsidies of one sort or another to ensure they have service at all.

www.qwest.com

<http://tmcnet.com/27646.1>

XO Leverages Broadband Wireless Near Nation's Capital



XO Communications has expanded its broadband wireless coverage across the Washington, D.C., region with the deployment of a new wireless hub in the Tysons Corner area of Northern Virginia. XO owns local multipoint distribution system spectrum in 80 metropolitan markets across the United States. The company leverages this wireless technology to extend the reach of its 19,000-mile nationwide fiber optic network.

www.xo.com

<http://tmcnet.com/27641.1>

AMD Could Win Some Apple Business

Apple is reportedly in talks with Advanced Micro Devices about using the chip maker's processors, which are known for delivering superior graphics, in devices such as the iMac and iPad. This would be a major change since Apple has been using Intel chips in its notebook and desktop personal computers since the company began its transition away from PowerPC in 2006.

www.amd.com

www.apple.com

<http://tmcnet.com/27642.1>

Sharp Demos Mobile 3-D

Sharp is demonstrating an LCD screen that brings no-special-glasses-required 3-D viewing to mobile devices including

cell phones, game machines and digital cameras. The next DSi from Nintendo will likely employ the technology, according to at least one report.

www.nintendo.com

www.sharp-phone.com

<http://tmcnet.com/27643.1>

Chunghwa Telecom Taps NSN for FDD-LTE

Nokia Siemens Networks will provide gear for a Frequency Division Duplex – Long Term Evolution trial in Taiwan with Chunghwa Telecom. During the trial, Chunghwa Telecom will test the FDD-LTE solution, which will expand on the capabilities of its Wideband Code Division Multiple Access network.

www.cht.com.tw

www.nokiasiemensnetworks.com

<http://tmcnet.com/27644.1>

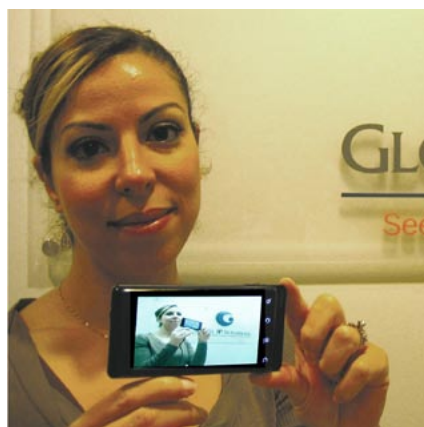
Optism Enables Mobile Advertising

Alcatel-Lucent has come out with a scalable, hosted mobile advertising platform called Optism. The company says it will help mobile operators develop new business models and offer more personalized experiences to their subscribers. It's also designed to assist advertisers in reaching wider, more targeted audiences through permission and preference-based mobile marketing that is aggregated across multiple mobile operators.

www.alcatel-lucent.com

<http://tmcnet.com/27645.1>

GIPS Brings Video Chat to Android



Global IP Solutions, a provider of HD voice and video processing solutions,

has brought video chat to Android mobiles. "GIPS continues to innovate for mobile application developers by offering the ability to incorporate high-quality voice and video communications without having to worry about the complex challenges of wireless networks," says Joyce Kim, chief marketing officer at GIPS.

www.gipscorp.com

<http://tmcnet.com/27647.1>

Maya Helps People Mind their Medicine



Shavelsky's MedMinder has developed a product called Maya, an intelligent pill organizer designed to simplify medication management and improve adherence. It looks like a seven-day pillbox, with no digital readouts or buttons. But there is a built-in wireless cellular modem that communicates with the MedMinder central computer about the patient's medication activity.

www.medminder.com

<http://tmcnet.com/27649.1>

WebEx Arrives on the iPad

Cisco WebEx Meeting Center for the Apple iPad allows users to present information, share applications, and work more productively. The application can be downloaded from the App Store.

www.apple.com

www.cisco.com

<http://tmcnet.com/27650.1>

New Motorola Bluetooth Addresses Text-to-Speech Communications

Motorola Inc.'s new H17txt with Moto-Speak is a Bluetooth headset optimized for text-to-speech use. When paired with an application, it reads text messages into the headset in real time.

www.motorola.com

GO TV

As networks grow more robust and consumers search for alternatives to traditional TV delivery systems via satellite, cable and terrestrial routes, Internet Protocol Television or "IPTV" is taking hold. The statistics don't lie: IPTV technology is seeing exponential growth in both subscribers and revenues.

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<http://tmcnet.com/28290.1>

LifeSize Hails TAXI



TAXI, an independent communications agency, has deployed in its corporate offices HD videoconferencing systems from telepresence and video communications provider **LifeSize**. The videoconferencing systems will help TAXI enhance cross-office and client communications, reduce travel expenses and improve productivity.

www.lifesize.com

<http://tmcnet.com/28284.1>

Real-Time TEM Addresses the BlackBerry

Anomalous Networks Inc., a supplier of Real-Time Telecom Expense Management solutions, has introduced version 3.1 of the Anomaly R-TEM system for **BlackBerry** smartphones. Officials with Anomalous say the R-TEM system gives enterprises utilizing BlackBerry smartphones a real-time view of their data, voice and SMS usage, giving them greater visibility and control over these assets and allowing them to reduce telecom costs. Real-Time Telecommunications Expense Management provides an edge to enterprises by allowing them to capture and react to potential cost and corporate data security exposures in real-time.

<http://anomalousnetworks.com>

<http://tmcnet.com/28285.1>

Cost Allocations Get iTEMize'd

iTEMize announced improved telecom expense management through the automation of cost allocations. By automatically allocating telecommunications charges across departments, iTEMize improves the communication between information technology and finance. The improved solution from iTEMize

automatically distributes both wireline and wireless expenses throughout an organization, while presenting the results in a more digestible form. Using iTEMize's improved solution and

their own pre-defined allocation percentages, clients' telecom management teams can comb through the details of a telecommunications bill and assign charges to appropriate cost centers.

www.itemizetech.com

<http://tmcnet.com/28291.1>

AOTMP Readies Ranking

AOTMP, a provider of information solu-



tions for managing enterprise telecom and wireless environments, announced the pending launch of the industry's first telecom expense management and wireless mobility management suppliers ranking. Based on user satisfaction ratings, the organization will rank the top 50 TEM and WMM suppliers in AOTMP's 2010 State of the Industry Report. The report will indicate AOTMP's industry confidence index, enterprise satisfaction ratings of suppliers and industry trends and analysis.

www.aotmp.com

<http://tmcnet.com/28287.1>

TEMIA Issues Report

The Telecom Expense Management Industry Association has published a

report titled "Best Practices for Inventory Management Using TEM Metrics to Improve Performance." This report balances two different approaches to implementing TEM programs. One approach focuses on building an inventory first before processing invoices. The other approach begins with processing the invoices and then building the inventory working from the invoices. Both approaches have benefits.

www.temia.org

<http://tmcnet.com/28288.1>

Tektronix Enhances Solution

Operators are challenged to maintain a high level of service quality while holding down costs and addressing the increase in mobile and fixed roaming and interconnect traffic. Managing service delivery costs, turning premium traffic into a profit, counter balancing lost revenue streams and making the best roaming partner selections can impact an operator's bottom line. To address all that, **Tektronix** Communications has unveiled enhancements to its Roaming and Interconnect Assurance product, which is designed to improve roaming and interconnect performance monitoring for operators. The new enhancements provide real-time traffic visibility, actionable analysis and historical reporting for roaming and interconnect voice, SMS, data and mobility traffic.

www.tektronixcommunications.com

<http://tmcnet.com/28289.1>

PRP, Cannon Group Align Forces

Profit Recovery Partners, a national consulting organization headquartered in Costa Mesa, Calif., specializing in the development, implementation and support of administrative expense reduction solutions for Fortune 1000 companies, has entered into a formal partnership with Cannon Group Enterprises Inc., which is headquartered in Philadelphia, Penn. The former company provides national consulting in all areas of telecommunications including voice, data, wireless and VoIP. CGE has been in the business for over 15 years and has an established and well-respected client list.

www.prpllc.com

www.cannongroupinc.com

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OIN Reports Banner First Quarter

Open Invention Network saw a significant increase in the number of new licensees in its most recent fiscal quarter. During the first quarter of 2010, OIN signed 40 new licensees. OIN licensees benefit from access to OIN and shared intellectual property resources that may be employed to deter patent aggression against open source users and community members.

www.openinventionnetwork.com

<http://tmcnet.com/27788.1>

Clearwire, Funambol Partner on Open Source Mobile Device Management

Funambol, a provider of open source mobile cloud sync and push e-mail for devices, has announced the availability of an open source mobile device management solution for 4G devices.

The company developed the open source solution along with 4G mobile broadband provider Clearwire. The solution includes both mobile client and server software and is capable of performing over-the-air management of devices connected to a 4G network.

www.clearwire.com

www.funambol.com

<http://tmcnet.com/27789.1>

Ball Extends Opticks

Ball Aerospace & Technologies Corp. has expanded its Opticks open source software. New are extensions that perform hyperspectral, multispectral and image spectroscopy analysis. Opticks was launched in 2007 by the company as its first open source software project, designed to enable detailed analysis of remote sensing data. It's used by scientists and analysts within the Department

of Defense to analyze remote sensing data and produce actionable intelligence.

www.ballaerospace.com

<http://tmcnet.com/27790.1>

European SI Foehn Launches Asterisk E-commerce Portal

Foehn Ltd., a Digium Asterisk Solutions partner, has launched its e-commerce portal, www.voipfoehn.co.uk, which offers products for direct purchase that are built on or integrate with Asterisk. According to Matthew Pitt, sales director at Foehn, the company's decision to develop and launch an e-commerce site came about because it felt it could offer more flexibility and value to customers through the use of open source telephony. Foehn provides systems integration for companies in the U.K. and elsewhere in Europe.

www.digium.com

www.foehn.co.uk



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Businesses Are Sweet on Social Networking

What Can They Do to Make the Most of this Budding Relationship?

Social networking in the business world has gotten a lot of buzz in recent months. But after much study and analysis of the subject, this is my conclusion: Many businesses view social networking as adolescents might view love and romance. The idea excites them, but they're not quite sure what to do about it.

As discussed in the October 2009 issue of *INTERNET TELEPHONY*, companies like [Avaya](#) have been working to educate businesses about how they can use social networking not only to market their wares, but also to enable more effective communications both with current and prospective customers, as well as within their own enterprises. Yet today, many businesses' social networking strategies consist of nothing more than company fan pages on [Facebook](#). While that may well have its benefits, it's not always the ideal route to realize all the returns that social networking in the enterprise has to offer.

Taking the Plunge

"I think there are people who will be able to put this to effective use, but to put this to effective use you have to put some time into it," says Andy Nilssen, senior analyst and partner at [Wainhouse](#) Research. "If you think you're going to just put your toe in the water, you're not going to succeed."

However, figuring out the most effective way to employ social networking is challenging because it doesn't fit neatly into the project constructs enterprise IT groups typically use, says [Gartner](#) Vice President and Fellow Steve Prentice. The current model, he explains, involves evaluating a need, accessing available technological solutions and then implementing the solution that best addresses the need within the budget. But creating a social networking strategy should be less about technology and the deployment of a particular solution, and more about defining the goal of the effort and then looking at who will be involved, says Prentice.

ON24's Social Webcasting

The screenshot displays the ON24 Social Webcasting interface. It includes a central video player showing a man speaking. Surrounding the video are several interactive elements: a Twitter feed on the left, a PowerPoint presentation titled 'World of IST Survey' in the bottom left, and a 'RESOURCES' section on the bottom right. The bottom of the interface features a navigation bar with icons for Twitter, Powerpoint, Video, Blogs, and Resources, and the ON24 logo.



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“For many, many organizations you don’t actually have to deploy anything,” he says, adding companies can spend from nothing to hundreds of thousands of dollars on social networking efforts. “You can simply use services that are already there.”

For example, Prentice says products such as Cisco’s WebEx, IBM’s Lotus tools, Microsoft’s LiveMeeting and SharePoint, and many other conferencing and collaboration solutions can easily fit under the social networking umbrella.

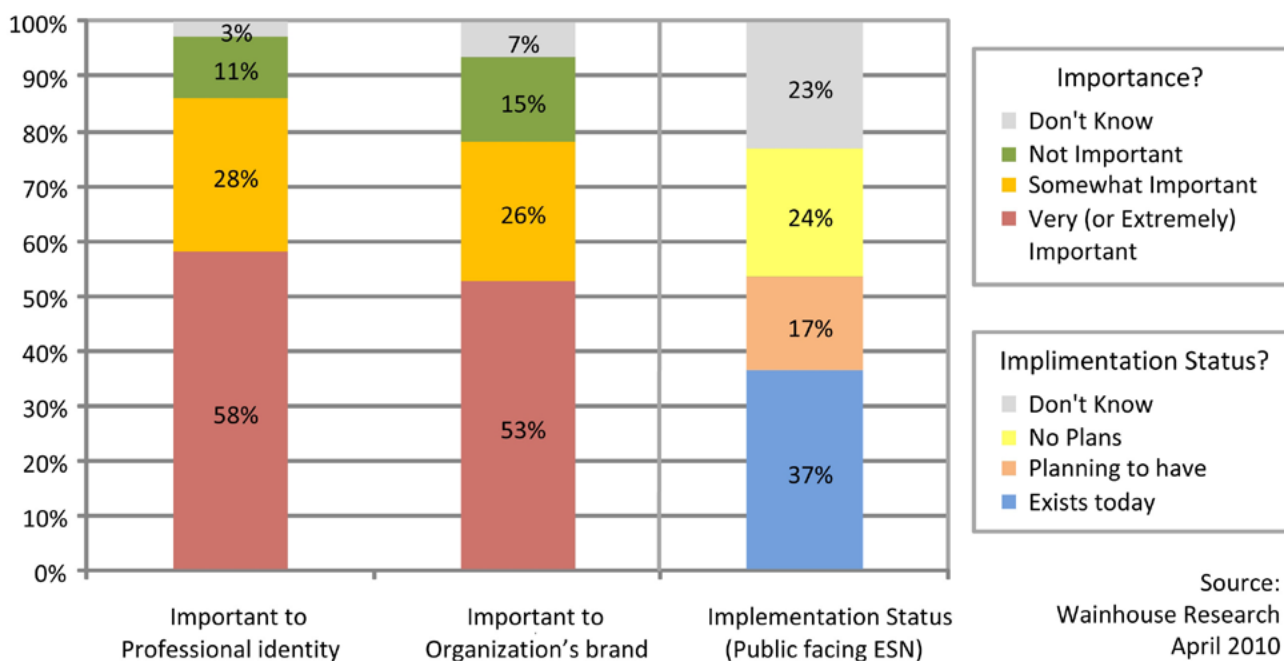
Many existing tools have been expanded to offer more of a social networking angle. For example, ON24 now offers what it calls Social Webcasting, which allows the company’s web-

re-engaging with that very multitasking-oriented user that’s just a click away from just leaving it and shutting off the event.”

Other popular products on the social networking for enterprise front include Jive Social Business Software, which according to Jive is in use at Cisco, Deutsche Lufthansa AG, Intel, NIKE Inc., SAP, Swiss Re, T-Mobile and Yum! Brands; and Yammer, a microblogging solutions provider.

Gartner’s Magic Quadrant for Social Software in the Workforce, which was released in October 2009, reports that “established workplace vendors with communication, portal, content or general collaboration platform offerings have continued to invest

Importance of Social Networking to Businesses vs. Implementation Status



cast customers, and their webcast participants, to alter their interfaces, include various widgets on the interfaces, and bring group chat or Twitter conversations onto the screens.

Doing this kind of thing, explains Mark Szelenyi, ON24’s director of product marketing, can allow for a more interesting experience for webcast participants.

“Our assumption is that when the user can engage with the event and customize it a little bit and share pieces of it with other parts of [his or her] digital life – like sharing or commenting on it – that drives a higher level of engagement with our customers’ content,” he says. “So it is this whole notion of

in social media support, and they are gaining market traction. Specialist vendors directly target social media prowess, so are enhancing product functionality, moving toward solution selling that appeals to non-IT buyers, and innovating with viral adoption techniques both within and between user organizations.”

While it can be more difficult for smaller specialists to gain a foothold in the enterprise space, some of these specialists are forming partnerships or doing integration with existing solutions to build their appeal, Gartner says.

But whatever tools a company uses for internal or external social networking, Prentice says it must first “focus on the adoption phase.”



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That, too, can be a challenge, Prentice says. For example, he explains, let's say there's a company that wants to get internal self-help groups started as part of its social networking effort. "If Joe in accounts is being seen as the person to go to on Excel, and people are continuing to do that, then Joe in accounts probably isn't doing what he should be doing in accounts," says Prentice. "So some of these solutions, although interesting, can be fraught with problems for organizations."

However, Prentice believes that while there are significant challenges around enterprise social networking, we're only at the beginning of what is expected to be a widespread trend. And the benefits of enterprise social networking are many, including improved productivity, allowing remote workers to better communicate with other employees, building customer loyalty, driving sales and more.

Growing Interest & Participation

A new survey from Wainhouse Research would seem to indicate growing interest in social networking for the enterprise. The firm's April survey results show that respondents are very enthusiastic about social networking for both personal and business use. Six out of 10 of the survey's respondents report use of social networking for both personal and business use. Another one in 10 use social networking strictly for business use, while another two in 10 use it strictly for personal use. And fewer than one in 10 have no involvement with social networking.

Meanwhile, 58 percent of respondents believe that building a social networking presence is very (or extremely) important to their professional identity and 53 percent believe it is very (or extremely) important to building an organization's brand, yet only 37 percent of respondents report that their organization has a public-facing social networking presence in place.

Of course, there are companies out there that have successfully implemented social networking on various fronts. IBM Lotus Connections Manager Christopher Lamb says he's worked with many of them.

"Seriously, we have just seen it used in so many ways, it is hard to generalize," he says. "For example, one customer is Rheinmetall AG, a German defense and automotive manufacturer. They have deployed Lotus Connections and embedded it into their internal SAP portal to improve productivity across teams, time zones, borders and corporate divisions. They can tap the expertise of their entire organization from the context of their ERP system."

Another IBM customer is the Practicing Law Institute, which deployed IBM social software last year to support its extranet site for 100,000 lawyers.

"The social capabilities allow PLI to not only deliver continuing education to the legal industry more effectively, it also helps strengthen PLI's relationships with those customers so they visit more frequently," says Lamb.

"So we really do see social software being used everywhere, and that is a big part of IBM's strategy," he adds. "Lotus Connections delivers a lot of value as a stand-alone application, but it

can also deliver that value in the context of existing applications – Microsoft Office, Microsoft Outlook, WebSphere Commerce, Rational Team Concert, CRM and SFA systems to name a few."

When organizations embed the knowledge of employee or customer communities into those applications, adds Lamb, they accelerate adoption, and they can optimize that particular business process. This results in faster time to market, shorter sales cycles, improved customer satisfaction, lower call center volume and other potential benefits, he says.

Making the Call

Speaking of call/contact centers, that's become a recent area of focus for Avaya relative to social networking for the enterprise, says Paul Dunay, the company's director of social media.

Dunay explains that many companies today use what are known as listening engines to gather mentions of their companies on blogs, microblogs, forums and other social networking venues. Some of those mentions may be praising the company, but others might be calls for help or criticisms of the company or its practices, he adds. In any case, they can really add up. Dunay says Dell alone gets between 4,000 and 5,000 mentions a day. And that makes it difficult for a company to monitor and, if it wants, to respond.

So Avaya, which Dunay says is a contact center leader, is pushing these mentions into the contact center so it and its customers can address some of the concerns made public via social networking. Avaya leverages its existing natural language processing technology and algorithms to put those mentions into an e-mail format and send them to the appropriate contact center employee. That employee can then decide on the best way to respond to the mention; and companies can set up a template to help call center reps to negotiate how best to respond.

When INTERNET TELEPHONY spoke to Dunay in April Avaya was using the solution internally and was in the process of lining up beta customers to try it.

Defining the Subject

This spring TIBCO Software, which provides applications infrastructure primarily to global companies, also was in beta mode with an enterprise social networking solution that it calls tibbr.

Rourke McNamara, TIBCO's senior director of global product marketing, says that rather than focusing on allowing people to follow other people, as Twitter tends to do, tibbr helps workers follow subjects. For example, a sales person might use this tool to learn what deals are in pipeline across his or her company, so the person will know if another deal closes in the same industry. The solution, which can be hosted on site or from a public cloud, also can be integrated with corporate resources like Active Directory or LDAP directory to give workers access to additional information.

And tibbr, which is expected to be generally available in the second half of this year, also can allow employees to monitor what their co-workers are subscribed to on the system. **IT**

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A New Twist on Location-Based Services

LBS Can Be Used to Bill, Locate, Manage, Monitor & More

These days the term location-based services frequently brings to mind new applications that push promotional offers or other content to cellular subscribers as they move into a particular geographical area. But there's a whole lot more to LBS than meets the eye. LBS also can be used to help cellular service providers with network management, policy enforcement and billing, and to enable new, productivity-enhancing capabilities within the enterprise.

Akil Chomoko, product marketing manager at Volubill, which provides real-time monitoring, control and charging software to communication providers around the world, says charging policy and DPI can be used in LBS applications for cell-based congestion management, as just one example.

"If you have sold a service to a customer [that] is based on certain capacity or bandwidth, and as a customer moves around he goes into one cell that is not congested and then goes on to another cell that is congested, you may want to manage that service in a special way," says Chomoko.

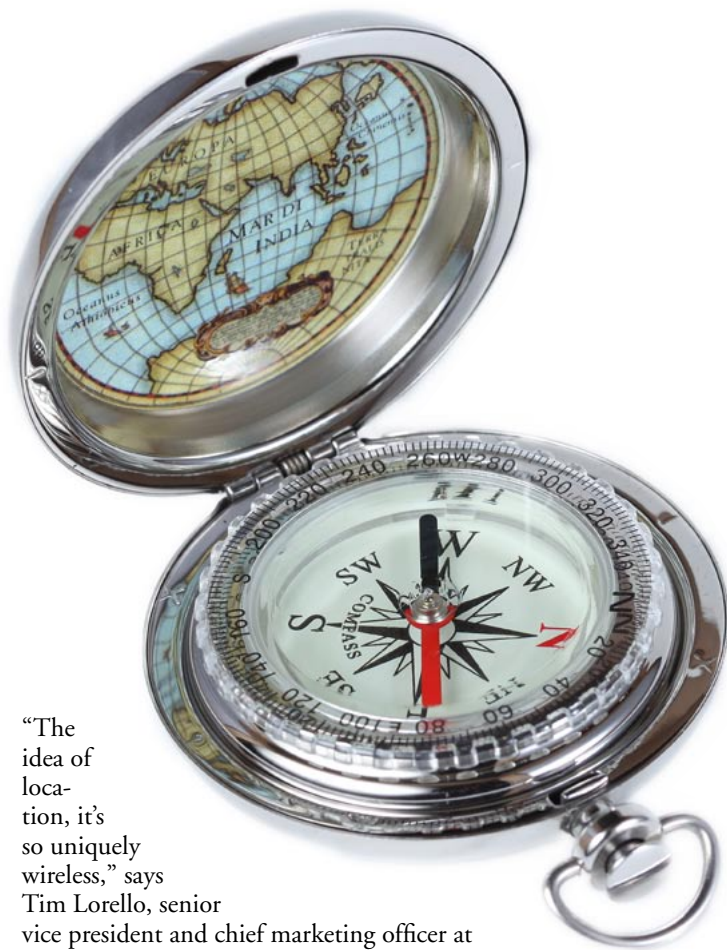
For example, a cellular service provider might opt to alert that customer that a particular cell might not be delivering optimal service; or offer money back for less than optimal bandwidth; or possibly throttle down the bandwidth of other users on the congested cell to ensure the customer who's subscribed to a higher-level service gets an optimal experience.

Volubill's Chomoko adds that location-based information also can be leveraged to detect when and where customers are roaming to ensure those customers are billed accurately and can be notified if they've hit their usage limits.

"Some service providers want to charge customers differently on their home cell than when they move away from home," he adds.

Of course, knowing where the customer is located also can allow cellular service providers and third-party software running over wireless networks to deliver a wide variety of advertising, entertainment, marketing, navigation, public safety and other applications.

While some of the actual and potential applications seem pretty obvious, others are rather offbeat. For example, Volubill's Chomoko says in India it's working with a service provider to support a boy-meets-girl SMS service, which alerts users when they're in the same vicinity, thereby "heightening the excitement."



"The idea of location, it's so uniquely wireless," says Tim Lorello, senior vice president and chief marketing officer at TeleCommunications Systems Inc., a leading messaging company that offers LBS solutions to a variety of carriers including Leap, MetroPCS, [Sprint](#), US Cellular and Verizon.

TCS made its mark in LBS years ago when it was a pioneer in the 911 arena. Today TCS – which last year added to its assets by acquiring location-based businesses LocationLogic (an Autodesk spinoff) and Networks in Motion Inc. – delivers LBS-related solutions on a number of fronts, says Lorello. That includes middleware for billing and privacy control; a coarse location engine that interacts with the switch to get SS7 information to find the cell site sector location of the caller; as well as applications like 911, navigation, asset location and location (of friends, family, employees, etc.).

Not only can LBS help network operators and their customers find people and deliver and/or receive content, it also can be used to do things like control battery usage on wireless endpoints, says Lorello. He explains that a network can use LBS to help a handset know which satellite or cell site to look for to enable a quicker connection and lessen the drain on the phone's battery.



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As mentioned previously, advertising and marketing are typically two of the first applications mentioned when LBS is discussed. But rather than just allowing a single store or retailer to push a coupon or other promotion to a customer, says Lorello, LBS could be paired with a cellular short code (says, STARB, for example) to enable wireless subscribers to find the closest Starbucks. Or, he continues, a short code like COFFEE could direct cellular customers to various coffee houses in the area and show them what deals are available at each.

LBS also increasing is being put to use within corporations, and other businesses and organizations.

Chris Kozup, senior manager of Cisco mobility solutions, says there are two basic case uses for Cisco LBS technology for business. One falls into the third-party application bucket and includes things like asset tracking. The asset can be anything from a car at a dealership or repair shop to a medical device at a hospital. (Think RFID on steroids, as Kozup says this is better than RFID because it has longer reach.) The other has to do with what Kozup calls condition monitoring. That means the tag itself has sensing capabilities that can tap the Wi-Fi network to deliver information – such as temperature change, motion, pressure or what have you – to another location. (It's kind of a new take on telemetry.)

Mercedes Benz is employing Cisco's LBS capabilities for asset tracking.

Because Mercedes has a showroom floor and extensive car display area, it can be difficult to locate quickly a vehicle with the precise

features a given customer wants. But by tagging cars and using LBS, the Mercedes' sales reps can enter the parameters a customer requests, and the system locates the vehicles with those features.

A company called Arnold Clark uses the same Cisco LBS/Wi-Fi technology for a car servicing application, Kozup says.

While there are a lot of great examples for how various verticals or applications can use LBS technology, James Winterbottom, GeoLENS product manager at Andrew Solutions, which sells a location server for the enterprise environment, says standards are starting to emerge to enable new economies of scale on this front.

"Enterprise location applications are moving away from the traditional vertical solutions that encompass location and emergency calling as a single entity," he says. "They are moving toward solutions that provide a separate location service that can be used by a range of enterprise applications including emergency calling, presence and asset tracking."

In the last six to 12 months, he told INTERNET TELEPHONY in April, the IETF has developed protocols related to location servers. HTTP-enabled location delivery – or HELD – is waiting to be assigned a number at IETF, he said, adding Andrew is a major backer of the effort.

HELD means people don't have to change out lots of infrastructure to enable LBS services because HELD runs at the IP layer and works really well, he says, adding that the next major release of Firefox will include a HELD client. **IT**

LBS can be used to help cellular service providers with network management, policy enforcement and billing, and to enable new, productivity-enhancing capabilities within the enterprise.

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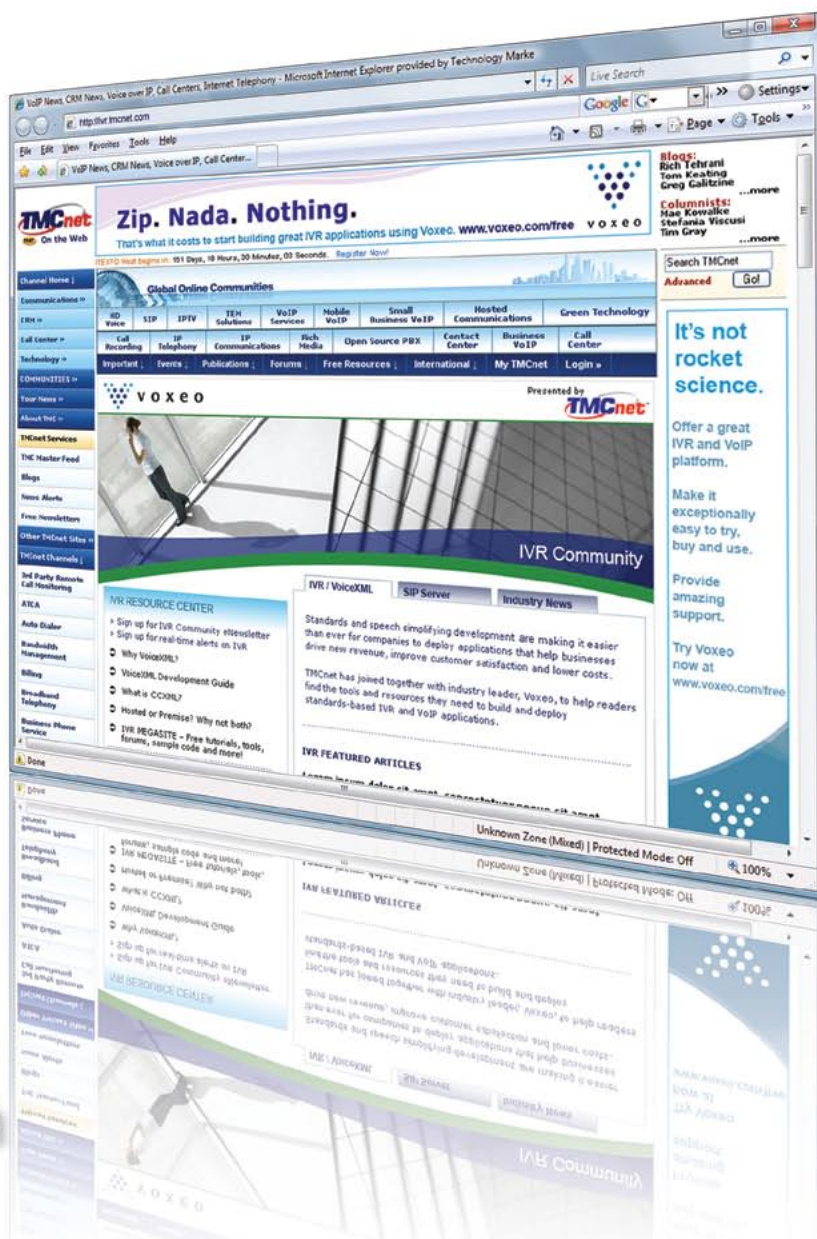


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SIP's Tortoise and the Hare Story

AT&T recently floated the idea of decommissioning the PSTN. And there's tons of talk about SIP adoption. Yet the uptake for SIP – at least within the customer premises – is not what many initially envisioned.

As Rick Pflieger, director of sales engineering at managed service provider VoIP Logic, notes, forecasts for SIP around the turn of the century indicated we should expect sudden and steep growth. But, for a variety of reasons, SIP-based PBXs and endpoints instead have seen a more gradual adoption.

"Everybody was expecting the hockey curve to be back in early 2000 and 2001 for SIP," says Pflieger. "I was working for an equipment manufacturer in '98-'99, and we were basically told by R&D folks: 'SIP is the wave of the future. It's going to revolutionize the world.' Now we're going on 12 years, and we're farther along than we were, but SIP hasn't dominated the world by any means."

Irwin Lazar, vice president of communications and collaboration at Nemertes Research, agrees.

"For a while there was this idea that you would replace all your phones with SIP phones, it would cost \$75 a pop and basically reduce the cost of your telephony implementation," he says. "But the problem is the telephony vendors kept on adding features to their own phones, [and] they dragged their feet in supporting SIP. Those that did support SIP found that their feature sets weren't comparable."

The Standards Issue

Brough Turner, co-founder of wireless infrastructure upstart Ashtonbrooke Corp., and a telecom industry veteran, explains that in an attempt to allow SIP to support all previous telephony services, and to extend SIP to suit the needs of the mobile community, SIP has more than 10 years of additional features added to it. The result is quite complex, he says, and complexity results in interoperability problems.

The number of players in the SIP marketplace and the wide variety of gear (including application servers, media servers, etc., etc.) that plays a role in SIP communications only compounds the interoperability issue, adds Pflieger.

"Never mind having one or two throats to choke when something goes wrong," he says. "[Now] you have like 30 different people with their fingers in the pie, and they're all pointing their fingers at each other when something goes wrong."

Turner adds that while other technologies, such as 802.11, also have complications, organizations such as the Wi-Fi Alliance act as a single, widely accepted body that has defined subsets and a testing procedure. SIP, he says, doesn't have that kind of standardization.

"The bigger issue is what it takes to provide a solution – residential, enterprise or mobile," continues Turner. "SIP is not a solution. And CPE by itself is not a solution. The only kinds of CPE that's useful when sold separately are old analog sets (where the PTT/ILEC provides the rest of the solution) and mobile handsets (where mobile operators provide the solution). Fixed CPE with SIP might become a solution the way





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As consumers and businesses increasingly rely on mobile voice and data services, cellular networks are straining under the growing traffic. Employing innovations in cognitive radio design, xG Technology's xMax mobile VoIP/broadband data network platform has the ability to use existing radio spectrum more efficiently — opening the door to new market entrants, competitive options, and services.

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Wi-Fi has become, but only if there were a SIP equivalent of the Wi-Fi Alliance.”

But that seems unlikely given the interests of enterprise PBX vendors, Turner concludes.

As for the service provider side, VoIP Logic's Pfleger says that while some companies like Magic-Jack and [Vonage](#) have been able to make a business out of selling VoIP services, others have flopped, or dropped such efforts.

“Look at Level 3,” he says. “Level 3 was probably one of the most profound ones. Their 3Tone platform was supposed to be SIP over IP, and nine months later they blew it up. They detonated it and gave it to NGT. They sold it off because they decided it wasn't going to be as easy as they thought, and they wanted to get out before they spent too much money.”

The Big Picture

While the variety of SIP implementations is the most commonly cited reason for slower than expected SIP adoption, Pfleger adds that the telco mindset, the economy and Y2K also probably played a role.

“SIP is a fundamental change in how telephone companies do business,” he explains. “For over 100 years the intelligence was in the core, and the end device – the telephone that's on your desk or in your home – was a relatively dumb device. It could be swapped out at any point with no impact to the network.

“SIP fundamentally changes that because with SIP you're putting the intelligence at the edge; you're essentially putting the intelligence at the customer prem in the home or at the desk of the business, and the core gets relegated to routing,” Pfleger continues.

Putting the intelligence at the edge makes some telephone companies “super paranoid” about potential security breaches, he says. However, he adds, that's becoming less of a concern as companies like Vonage have begun to employ specialized software loads on vendor gear that make it impossible for devices to be re-provisioned without the service provider knowing it.

Telecom's nuclear winter in 2001-2002, and the general economy's severe downturn in more recent years, also probably played a role in slowing SIP endpoint adoption. The fact that many companies of various sizes put considerable resources into their traditional PBXs to guard them against the Y2K IT meltdown that never materialized didn't help matters much either, adds Pfleger.

“When you spend that kind of money [like companies did upgrading traditional PBXs for Y2K], you're not going to throw it away a year later or two years later, especially when

The bottom line is that SIP will continue to make gains, but still on a gradual basis, while other technologies like MGCP and SCCP will probably hang around for at least a while longer.

you go into an economic recession like we did in 2001-2002,” he says. “The dot.com industry completely blew up and dragged everything down with it.”

Slow and Steady Wins the Race

So, now that we've explored how SIP adoption has been slower on some fronts than originally anticipated, and the possible causes of that, what's the bottom line?

According to our sources, the bottom line is that SIP will continue to make gains, but still on a gradual basis, while other tech-

nologies like MGCP and SCCP will probably hang around for at least a while longer.

Pleger says Cisco Systems has had great success with VoIP in the enterprise employing its proprietary SCCP (aka “skinny”) protocol. At the same time, MGCP, an evolution of the initial H.323 VoIP protocol, is still around, he says, adding both of the above technologies rely on intelligence in the core.

“Nowadays SIP will be the winner, but there is still a strong following of MGCP and skinny customers out there,” he adds.

UC Could Seal the Deal

Chris Thompson, senior product manager at [ADTRAN](#), says this SIP story was probably simply a case of people expecting too much from a new technology too soon. However, although SIP got bogged down with different interpretations and interoperability issues as companies strove for PSTN feature parity, he says, the UC aspects of SIP now are starting to emerge. Today, he indicates, companies are seeing the added value that SIP solutions from companies like ADTRAN bring to the table. That includes unified communications and the ability to tie telephony systems in with databases to enable communications-enabled businesses processes and integration.

Meanwhile, companies like [IntelPeer](#) are delivering hosted voice and rich media SIP trunking and communications services that enable carriers, businesses and software vendors to deliver voice and multimedia capabilities easily to any phone or network-connected device – and IntelPeer offers Microsoft OCS and a software API along with the mix, says IntelPeer CEO Frank Fawzi.

Fawzi explains that the VoIP development platform IntelPeer provides enables the network and application to understand the endpoint so it can deliver enhanced features like find me/follow me and on-the-fly rerouting. That also enables more metadata to be integrated for greater functionality, he says.

So although SIP hasn't achieved the initial rocket-like growth some initially expected, this protocol – and the endpoints and services that employ it – continue to make gains on a number of fronts. **IT**



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Are SIP-Based Networks Ready for Prime Time?

By Ian Colville

There is no doubt that IP technology has become ubiquitous in modern communications networks. It is a fundamental element for a vast array of business-oriented solutions that help customers manage key processes, like increasing revenue, improving operations, enhancing communications, and controlling costs. Yet, as powerful and commonplace as IP solutions have become, the technology is often based on a best-effort protocol that does not match legacy SS7 technology in terms of reliability – a crucial distinction for business customers.

As a result, businesses, especially ones that are looking to leverage the profound benefits of IP hosted solutions, are taking a serious look at these IP solutions to determine if they are indeed ready for the big time. What they're finding is a harsh reality: SIP-based services continue to suffer from a lack of network resilience and failover within the IP network. Concepts like five-nines reliability and always-on availability, while commonplace in legacy environments, are not the norm in an IP setting.

Meeting Customer Expectations

The reliability issue can be particularly problematic for many hosted solutions providers as they look to migrate customers to SIP-based solutions. These new customers, which by and large have had positive experiences with legacy networks, fully expect that the SIP-based services will perform in a manner similar to solutions in the legacy SS7-based environment. As a result, they will not tolerate any degradation in quality or reliability from their new solutions. If their experiences are less than optimal, they will in all likelihood revert to the comfort

zone that is the SS7 network, and all of the touted benefits of hosted IP solutions will fall on deaf ears.

Enter Dual Redundant SIP Service

Among varying methods to improve the performance of IP-based solutions, there is growing interest in the deployment of a dual-redundant SIP service within the IP network. This capability employs advanced IP signaling gateways to increase the reliability of the SIP-based solution to the level of legacy TDM-based SS7 technology. DRSS signaling gateways operate in a paired configuration with an active server and a standby server that mirrors the active server in real time, similar to the way SS7 signaling nodes are configured.

Communications service providers can then factor in network resilience and service continuity as a core part of their service. In the event of a failure, the redundant operation of the DRSS signaling nodes ensures the system intelligently fails over to the standby server. Calls that are connected at the time of such a failure remain connected — just like in the SS7 world. This creates a self-healing infrastructure, transparent to the user.

Conclusion

While most industry experts and influencers wholeheartedly support the notion that hosted communications services will continue to gain momentum in the marketplace, the challenge lies squarely on the shoulders of providers, which must find a way to improve the reliability of the IP infrastructure to satisfy user expectations. A dual-redundant SIP service is an effective and reliable means for hosted services vendors to improve network performance and ensure the seamless delivery of cloud-based voice, collaboration, contact center and high-demand business and consumer services. **IT**

Ian Colville is product manager for Aculab (www.aculab.com).

SIP Trunking Continues Ascent

Interoperability Efforts Move Forward as Well

By Paula Bernier

As the other two stories in this package discuss, SIP-based premises gear has seen gradual adoption, but not the rocket-like growth some had originally forecast; meanwhile, some have questioned whether SIP-based services are ready for prime time. But one aspect of SIP-based communications that has seen very little resistance and very wide appeal is SIP trunking.

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SIP Trunking Continues Ascent (cont.)

According to Irwin Lazar, vice president of communications and collaboration research at Nemertes Research, about 55 percent of companies are either deploying or evaluating SIP trunking.

The Big Sell

The reason for the business world's interest in SIP trunking is clear: The service is far less expensive than buying PRI lines for voice traffic.

"There hasn't been a compelling business case for SIP in the enterprise for anything other than interconnection of PBXs," says Lazar. "Most of the companies we talk to who are doing trunking internally are doing it to save long-distance costs."

As Rick Pflieger, director of sales engineering at managed service provider VoIP Logic, notes, an average mid-sized company typically uses a T1 for data and a PRI for PBX voice communications. But moving to SIP trunking can enable the company to get rid of the PRI or PRIs and instead put all of its traffic over a single connection, potentially a bonded copper or fiber-based Ethernet link.

Lazar of Nemertes Research says SIP trunking can produce 20 to 60 percent in savings for a company.

SIP trunking also has some other nice features, says Lazar, adding that companies can leverage the technology to route calls based on time of day or on load and to set up virtual numbers in remote parts of the world.

Optimum Voice for Business launched its SIP trunking product last summer, says Joe DeLotto, director of product management at the Cablevision company. The initial service, he adds, was somewhat limited, supporting only Cisco and Microsoft endpoint devices. However, the company is now in the process of expanding its list of supported IP PBXs and expects to announce the details of that effort next month, he says.

DeLotto says beyond the obvious cost savings SIP trunking offers relative to PRIs, which are expensive, moving to this new service delivers a converged solution for customers; can be easily upgraded; offers alternate call routing if an endpoint is not available; and includes call admission control, which has ability to define and control the number of incoming and outgoing calls (this is a useful feature in environments such as inbound call centers).

SIP Connect

As with most new technologies, standards around SIP trunking continue to evolve.

Lazar says there are still a lot of different ways of implementing SIP, and some service providers' services don't work with

some PBX vendor solutions. But SIP Connect, an initiative from the SIP Forum that began a couple years ago, is now in version 1.0, which a lot of vendors now support. Version 1.1, expected to be released soon, will help alleviate this interoperability concerns further, he says.

Noting that the IP PBX market is highly fragmented – with Avaya, Cisco, lots of Toshiba, Panasonic and Asterisk gear out there, DeLotto says the cablecos have tried to drive interoperability by pushing for a standard on which equipment providers and service providers can agree. SIP Connect 1.0 out of the SIP Forum, in which DeLotto's company is a member, never really had a certification program and includes a lot of things that are considered optional, he says. DeLotto describes 1.1 as a tighter spec that will nail down how to implement various aspects of SIP trunking. SIP Connect 1.1 is anticipated to be signed off on by this fall, he adds.

SIP-I

Elsewhere on the SIP networking front, international wholesalers are becoming more interested in moving toward SIP-I and away from traditional TDM connections, according to Veraz Networks.

Dawn Hough, vice president of marketing at Veraz, says that about a year ago the company was working with the GSMA on validating its SIP-I work to address this trend. Veraz helped the group define the standard and did some tests around SIP-I, she says, but then the effort – or at least the larger IPX effort of which SIP-I was a part – was put on the backburner. However, according to Hough, SIP-I has recently made a resurgence.

SIP-I, in which the I stands for interconnection, is a way to carry traditional signaling protocols, like ISUP, over SIP. That means if you're a wholesaler connecting two companies with ISUP in their networks, you can do that over IP and using SIP. The alternative is to terminate ISUP and then use native SIP – but that scenario involves two conversions, so things can get lost in the process.

Meanwhile, IPX is a service definition the GSMA has been working on that is a model for next-gen wholesale services and includes the use of SIP-I. It also includes descriptions around payment flows and how pricing is done and SLAs.

While a lot of people have looked at IPX and are interested, it will require some fundamental changes in how people think about billing and how payments flow, so it will take a while for wholesale carriers to adopt it, explains Hough. But in the meantime they can adopt SIP-I right away, she says. **IT**



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Virtualization-Aware Networks

Server virtualization has proven to be a revolutionary solution for improving utilization rates of physical servers, providing a cost-effective means of implementing disaster recovery and fueling innovation by making compute resources flexible and moveable.

As the workload on the physical servers increases, virtual machines can be migrated to available servers to ensure that service level agreements and response times are met. When workloads decrease, the VMs can be migrated for consolidation to fewer servers and allow the unused servers to be powered down to save energy and cost. Virtualization can also improve the availability of applications, because virtual machines can quickly be restarted on new hardware if physical servers fail. VMs can also be simply migrated ahead of time when servers need to be shut down for service or upgrades. As a result, companies have turned to server virtualization to maximize resources.

However, the increase in virtualization comes at the price of additional complexity and overhead. Current networking switches are not aware of virtual machines, and this exposes the risk of service outage and security breaches due to incorrect network configurations. Lack of support for

virtual machines with different networking requirements and migration of virtual machines without guaranteed performance and security prevents virtualization from achieving its potential for rapid scale-out, highly available dynamic data centers.

To fully realize the benefits of virtualization, companies need to enable what is commonly called multi-tenancy to allow virtual machines with different application, security and networking requirements to share physical resources and enable the dynamic movement of virtual machines while protecting security and maintaining accessibility on the network.

Virtual switches (vSwitches) are software network switches that provide the initial switching layer for virtual machines. They forward packets from virtual adapters in the virtual machines to other VMs on the same physical server or into the physical network via uplink adapters. Some vSwitches provide



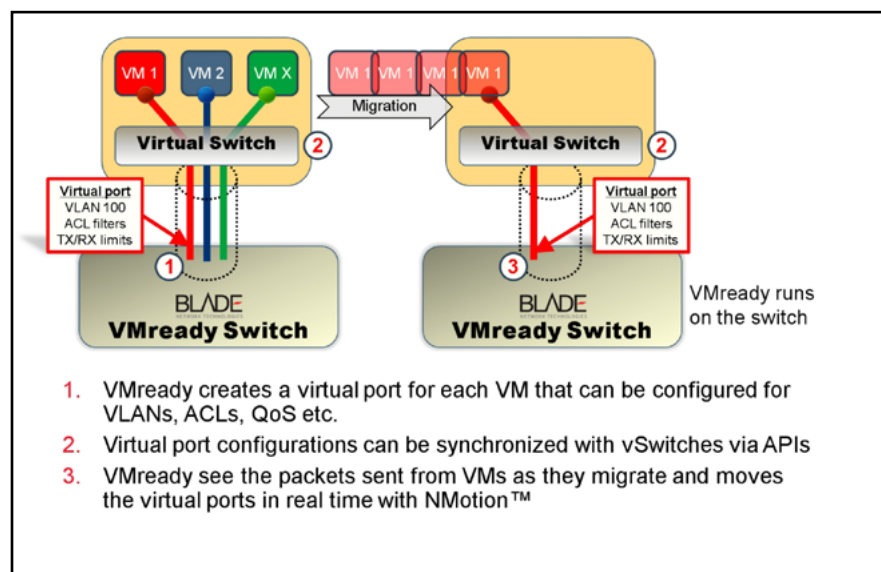
BLADE's Graham Smith

Layer 2, as well as some Layer 3, switching and can assign network attributes for VMs such as VLANs and traffic shaping.

Virtual machine migration refers to the mobility of VMs within the virtual environment. This can be in response to events or conditions based on sets of predefined criteria, such as:

- when a VM should move from one location to another in a scheduled fashion;
- when a VM should be replicated (cloned) in another location in a scheduled fashion;
- when a VM should be able to move from one location to another in an unscheduled fashion; and
- when a VM should be replicated (cloned) in another location in an unscheduled fashion.

With the above set of policies, the server administrator is able to define a coherent set of rules that provide both the ability to adapt to changing workloads and to respond to and recover from catastrophic events in both virtual and physical environments. For many services, changes in demand are generally regular and therefore predictable. Such expected changes can be anticipated and automated with a set of rules that al-





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allows the administrator to allocate demand to pools of available resources (such as CPU cycles, or memory) on platforms (servers) that have the lowest utilization.

When a VM experiences very high workloads, its performance could be negatively impacted unless it can be migrated to other available resources. For data centers to quickly migrate busy virtual machines requires that the network is configured correctly to avoid security or access issues.

To truly exploit the benefits of server virtualization, data centers need to enable the dynamic and automatic movement of virtual machines while protecting their security and maintaining accessibility. Conventional network switches are not aware of virtual machines, and this creates security

and requires Cisco switches that implement proprietary packet tagging to transfer the vSwitch's network traffic for handling by the physical switch. It's an approach that only works with the most expensive versions of VMware and requires an overhaul of the existing networking environment.

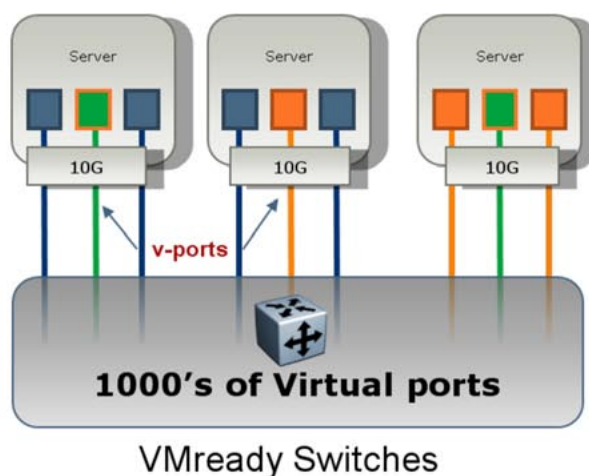
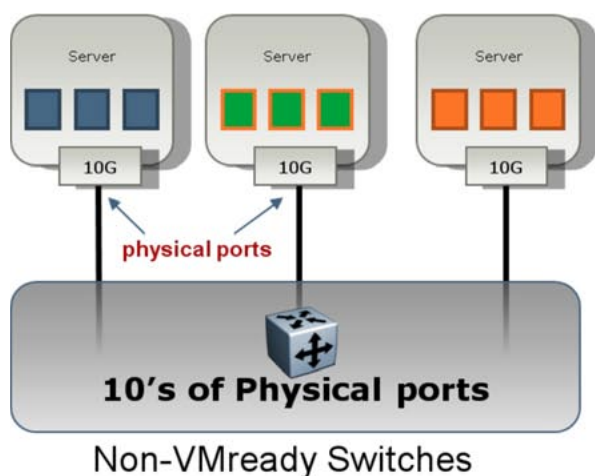
The IEEE 802.1Qbg working group is working on the virtual Ethernet port aggregator, better known as VEPA, as well as other related technologies, such as Ethernet virtual bridging. There are more than two dozen contributors to this standards effort, such as BLADE Network Technologies, Cisco, Dell, EMC, HP and IBM.

BLADE's solution called VMready makes the network virtual machine-aware. The approach extends the concept of virtualiza-

tion for BLADE's embedded and top-of-rack switches, greatly simplifies management by ensuring that consistent network policies are enforced regardless of a virtual machine's physical location. VMready's ability to automatically move the networking policies of VMs during live migrations empowers customers to create truly dynamic data centers.

VMready also:

- prevents security breaches and service outages that can be caused by improper network configuration;
- maximizes the benefits of virtualization while eliminating the exposure to error that exists in traditional networking environments;
- provides administrators the visibility they need to measure and troubleshoot network traffic per virtual machine;



and availability issues for both server and network administrators as they try to fully exploit the value of virtualization and manage this new environment. To further the virtualization evolution, network vendors need to provide products that:

- are virtual machine-aware;
- provide network configurations at a virtual port level, rather than just at the physical port;
- track the mobility of virtual machines across data centers and into the cloud; and
- automatically reconfigure the network as virtual machines move.

Vendors are responding to the challenge of making networks virtual machine-aware with differing approaches. For example, Cisco provides its Nexus 1000V, which operates as a replacement to the VMware vSwitch

and into the network, allowing network policies to be configured for virtual ports (v-ports), rather than just for physical ports. Each virtual machine can be assigned unique networking parameters such as security ACLs, QoS, and VLANs.

VMready automatically synchronizes with virtual machine managers such as VMware's vCenter. This automatic configuration simplifies administrative tasks and reduces the chance of error due to misconfigurations. VMready also tracks the mobility of virtual machines across the data center and automatically reconfigures the network in real-time as the virtual machines move.

For server and network administrators, VMready, which is switch-resident software

- solves issues in managing virtual machines and provides the simplicity, flexibility, and power needed to enable dynamic data centers;
- enables administrators to configure the network parameters of virtual machines and track them as they migrate with an open-standards based solution;
- reduces complexity by requiring no additional server software or changes to hypervisors or virtual machines; and
- helps create energy-efficient, cost-effective data centers that allow enterprise applications to perform with the highest availability and performance. **IT**

Graham Smith is the director of product management for BLADE Network Technologies (www.bladenetwork.net).



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TMC, INTERNET TELEPHONY Congratulate WiMAX Distinction Awards Winners

WiMAX has become one of the hottest areas in technology as demand mounts for broadband that is more widespread, faster and, often, mobile.

Joe McGarvey, principal analyst for IP services infrastructure with Current Analysis, recently told INTERNET TELEPHONY: The explosion of mobile data networks is “basically the second coming of the Internet boom that the fixed world experienced several years ago.”

In the U.S., Clearwire and Towerstream have led the way in terms of WiMAX deployment. Meanwhile, WiMAX has seen considerable momentum for rural deployments and with various service providers abroad.

WiMAX is considered as one of the key ways that network operators can bring broadband quickly and affordably to far-flung rural subscribers. And the federal government's broadband stimulus program has given the 4G technology an added boost by providing funding to select applicants, some of which aim to use WiMAX to bring high-speed Internet access to remote, unserved and/or underserved areas.

Meanwhile, WiMAX already has seen some significant deployments in Asia. For example, KT has a large-scale WiMAX deployment in place in Korea. And UQ Communications, which



is backed by Intel and KDDI Corp., expects to bring WiMAX to Japan in a big way as well.

In light of all the interest and uptake in this exciting new 4G technology, Technology Marketing Corp., the global, integrated media company that is the parent of INTERNET TELEPHONY, recently launched the Third Annual WiMAX Distinction Awards.

Presented by INTERNET TELEPHONY magazine, the 2010 WiMAX Distinction Awards have been granted to companies that exhibit a commitment to innovation in the WiMAX space. Based on case studies provided by entrants, winners were chosen by members of the TMC editorial staff based on exemplary products and services developed and deployed in the past year.

“The WiMAX Distinction Awards acknowledge companies who are successfully bringing WiMAX to market and providing their customers with exceptional solutions to help grow their business,” says TMC's CEO Rich Tehrani. “I would like to congratulate all the winning companies for their achievements in the WiMAX community.”

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By Erik Linask

Welcome to the New Avaya

After the speculation as to how the pieces of the former telecom giant **Nortel** would be distributed amongst the many potential bidders died down naturally, once the various deals fell into place, attention turned to how Avaya would manage the integration of Nortel's enterprise division into its own environment. Many, in fact, questioned if it could be successfully accomplished.

While the final verdict may be years away still, the energy level at the recent Avaya DevConnect Partner Conference clearly signified that both existing Avaya and former Nortel developer communities are at ease with how the transition has played out thus far.

Certainly, with 100 million lines of combined installed telephony lines, the task of combining the two entities, their product lines, their employees, their partners and resellers, and their developer communities was daunting, at best.

But, there were certain atypical elements of this acquisition that, according to George Paolini, vice president of devices, clients, and application platforms at Avaya, have actually made this a tailor-made transition. Specifically, the Nortel bankruptcy created an unusual level of granularity that allowed Avaya to evaluate much more effectively the Nortel assets, providing deeper insight into which products from each entity would live on, which would be replaced, and which could be combined to create enhanced offerings.

Essentially, Nortel's financial predicament allowed Avaya to begin formulating a transition roadmap immediately, even as it was still evaluating its potential investment, which meant it could also begin implementing its roadmap much sooner than might have been expected – it announced its roadmap on January 19, 2010.

In fact, the entire process was made easier because of the synergies between the two organizations, beyond the obvious focus on real-time enterprise communications.

"It was fascinating to see just how similar the Avaya and Nortel visions were," said Harvey Waxman, vice president, architecture, Global Communications Solutions at Avaya. "It made it easy to see which pieces of each company would allow Avaya to enter this new era of contextual communications."

For instance, Avaya is retaining its session manager – and rightfully so, as it is a key component of the Aura platform. On the other hand, it will be integrating several pieces from Nortel, including its Business Communications System Manager and what both Paolini and Eric Rossman, vice president of developer relations at Avaya, say is the real gem of the acquisition: Nortel's Agile Communications Environment (ACE), which Rossman adds had been significantly undervalued by not only Nortel itself, but analysts as well.

It's almost surprising that it was, given the widely acknowledged role of applications in the communications environment, and the ability to quickly develop and integrate those applications ACE provides.

Still, the big question was how well and how quickly Avaya would be able to integrate the Nortel pieces into its own product line and sales strategy, much of which was unveiled in its roadmap. Without question, much of the speculation was likely anticipation by the community – after all, it's not every day two of the top three vendors in any market come together.

According to Rossman, perhaps the most amazing development is the excitement from within the Avaya community in accepting the roadmap and the integrated product set.

"It's been fantastic," he said. "It's been a while in the tech space since we've seen this kind of excitement, and we want to continue to build off of it."

James Ingram, director of the International Avaya Users Group, acknowledges that both Avaya and Nortel users were in the same state not long ago, wondering about their existing equipment, future support, integration of the two product sets, and generally about the roadmap.

But he says that what he's seen since is "just mind-boggling."

"The transition has been handled transparently and honestly," he said. "Avaya embraced the Nortel equipment and, in a few years, they will have taken the best of both to product the leading technology player in the market."

So, as the world is introduced to the new Avaya – just as its developer partners were at the conference – only time will tell if such acknowledgement portends the bright future Avaya anticipates. But, the agility with which it has laid out its plans and the genuine enthusiasm from its partners and developers undoubtedly answers many questions,

It would also be unwise to overlook the significance of Avaya having brought Paolini on board, whose experience includes stints with Sun Microsystems, SAP, and Cisco, and who admitted he jumped at the opportunity to lead Avaya's ecosystem team, which he says is the most dedicated he has seen. **IT**





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