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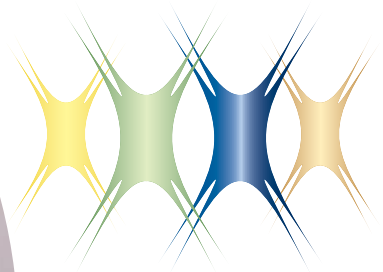
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A Good News Story

Many categories in the technology sector, and the economy at large, have stalled or lost ground during the past few years as customers have pulled back on spending, and buying trends have shifted. But when you look at trends for the past decade, VoIP has made big gains. And it looks well-positioned for the year ahead and beyond.

An IBISWorld Inc. report issued late last year indicates VoIP was the fastest growing technology of the past decade. According to the study, the VoIP industry has grown 179,035 percent since 2000. (Further down the list is search engines, with 1,656 percent growth; e-commerce and online auctions, with 469 percent growth; online dating and matchmaking, with 249 percent growth; and, jumping down to the No. 8 position, wireless telecommunications carriers, with 183 percent growth.)

More recently, IBISWorld analyzed more than 700 industries to identify the winning sectors in the coming year. It selected telecommunications as among the likely winners, noting the industry's resiliency despite last year's recession. According to this report, VoIP provider revenue is expected to rise again in 2010, to the tune of 17.9 percent.

Recent headlines seem to support this VoIP good-news story.

For example, **8x8 Inc.** recently was named one of the fastest growing companies in North America on Technology Fast 500, Deloitte LLP's ranking of 500 of the fastest growing technology, media, telecommunications, life sciences and clean technology companies. Rankings are based on percentage of fiscal year revenue growth during the five-year period from 2004 to 2008. 8x8, which provides more than 18,000 business customers with a money-saving alternative to traditional landline solutions, grew by 562 percent during this period.

We've also seen strong performance of late from several VoIP-related companies on the equipment and software side.

Metaswitch Networks in early October reported its annual results for the 2008/2009 financial year to Aug. 31. Overall revenue grew 4.2 percent from £59.3 million to £61.8 million (\$113.7 million), with operating margins sustained above 20 percent. The company also has remained profitable. That was during the recession and amid a market in which carrier VoIP spending was down by more than 30 percent, the company officials point out.

Meanwhile, session border controller vendor Acme Packet saw business pick up in October 2008, actually corresponding with the financial crisis. That's because, as **TMC's** Rich Tehrani noted in a past Publisher's Outlook, after the financial meltdown of world economies, job security at companies became tied to accomplishing goals better, faster and cheaper, and IP technologies like those from Acme Packet helped accomplish those goals.

Empirix, which is in the VoIP testing space, is yet another company that has achieved significant growth over the past year.

And while Infonetics Research expects a 30 percent drop from 2008 in worldwide revenue for 2009 service provider next-generation voice equipment overall, that's the past. Most industry watchers expect technology spending to pick up in 2010 as many of the companies that had delayed investments in the darkest days of the economic meltdown are now in need of new solutions and are starting to feel more comfortable that a recovery has begun. And IP-based solutions, including VoIP and unified communications, are ready to meet that need. **IT**

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Mitel's IPO and the Future of Communications this Decade

2009 was a momentous year for **Nortel** – finally imploding under a combination of extreme debt, acquisition challenges, Asian competition and the remnants of a financial scandal from years past. Recently I analyzed the acquisition of Nortel's enterprise unit by **Avaya**. And last month at ITEXPO in Miami we heard the details of the merger and roadmap. While there was vibrant discussion at the conference regarding Avaya's roadmap, it should be noted that Mitel too has been a major topic of discussion as it plans an IPO this year.

You may recall the IPO plans of **Mitel** were shelved in 2006. Many thought this was as a result of a poor showing in the public markets by **Vonage**, but company execs explained the reason for the pull back had more to do with the fact they were able to bid for and acquire Inter-Tel and didn't need the public markets to consummate the transaction.

The contrast between the fortunes of Mitel and Nortel won't be lost on many industry veterans. Both telecom companies excelled due to technology leadership, but both had an understated approach to customer and market communication, meaning PR and marketing. This is not uncommon – the world is awash in tech companies that use an engineering approach to marketing.

Mitel plans on using the money generated from an IPO, which is hoped to raise as much as \$230 million, to repay its revolving credit line, loans and to make acquisitions. Interestingly, Mitel has recorded net losses every year from 2001 until 2007 and was profitable in 2008. In 2009, by all accounts a very tough year, the company increased sales by 6.2 percent.

It is worth noting that the company's fiscal year ends on April 30, 2010, and even though sales were up, earnings declined resulting in a net loss of \$193.5 million as opposed to net income of \$12.6 million in the prior fiscal year. This loss was due to a goodwill charge of \$284.5 associated with purchasing Inter-Tel. This sort of charge is generally seen when assets that have decreased in value are realized.

Billionaire, serial entrepreneur, tech visionary and 4GWE/ITEXPO keynoter Sir Terry Matthews is a Mitel cofounder and currently has a 35 percent equity stake in the company. He's in an interesting position to use the cash from this transaction to acquire one of the incubator companies he is running in Mitel's headquarters.

Meanwhile, Francisco Partners owns 44 percent of the company.

Mitel is not the only tech company in which they have an interest. Others include Aconex, AMI Semiconductor, Attachmate, Barracuda Networks, Blue Coat, FrontRange Solutions, Metaswitch Networks, WatchGuard, WebTrends and XcelleNet.

One would imagine with such a portfolio of companies under its belt, Francisco could have made a case to use Mitel's formidable sales and reseller channels to sell solutions from Barracuda Networks and FrontRange Solutions, the company behind Goldmine CRM software. In addition, Barracuda has a wholly owned subsidiary, CudaTel, which leverages open source and by integrating it into the Mitel product line, the company instantly gets a Linux-based solution. There are some synergies with Metaswitch, but in my experience, having a common investor does absolutely nothing to promote synergies between organizations.

Ironically, one big exception is Wesley Clover, the holding company for the dozens of companies in which Terry Matthews has an interest. **IT**

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Introducing the VoIP Phone Systems Global Online Community

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

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University Pioneers Mobile Learning Initiative

Abilene – the Texas locale made famous by a crooner calling it “the prettiest town I’ve ever seen” where women “don’t treat you mean” – may soon become just as well known for its pioneering high-tech applications in the academic vertical.

A 4,800-student institution about 180 miles outside of Dallas called Abilene Christian University has been working with Alcatel-Lucent to enable a variety of new alert, conferencing and collaboration, document sharing, identification, payment, and polling capabilities. These applications are now, or may soon be, available to students, staff and/or visitors of the school via university-provided iPhone and iPod Touch devices.

“Mobility is going to be big,” says David Puglia, CTO of the enterprise business at Alcatel-Lucent, describing the ACU deployment as a key example on this front. “It is big, and it’s going to be huge.”

The university has been an Alcatel-Lucent customer since 2001, and virtually its entire network is based on the vendor’s solutions, whether you’re looking at the IP PBX; the wireless LAN, which includes nearly 500 access points; application enablement; data infrastructure; conferencing and collaboration tools; or security, says Fernando Egea, direction of solution architecture for Alcatel-Lucent’s enterprise group.

ACU recently decided it wanted to take its communications capabilities to the next level in an effort to improve enrollment and retention, and to support its goal of positioning itself as a premier global university. Given 90 percent of Generation Y students already use cell phones and laptops, decision-makers at the school realized popular electronic devices could be ideal mechanisms for university outreach and student support. So it launched the mobile learning initiative.

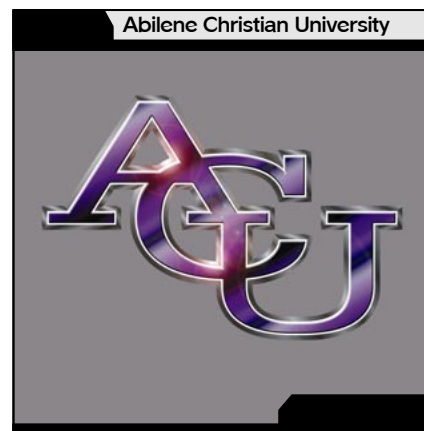
A video at <http://enterprise.alcatel-lucent.com/docs/?id=10532> promoting the program demonstrates how students can use the Apple devices to discover what books they’ll need for various classes; access a campus map and calendar; and receive ACU Alerts on a range of topics, such as notices

about coming thunderstorms, for example. The program, through which the college provides the devices and the students pay the monthly connectivity fees, also enables students to choose between taking classes in the traditional way, and attending classes just once a week and using their iPhone or iPod Touch devices to access the other necessary information, which starting this year will be offered on demand.

The new communications effort at ACU also encourages student engagement by enabling class members to post links related to curriculum and discussions to class Websites. And a feature called NANO, for no advanced notice, lets ACU teachers project multiple choice tests on white boards, to which students can respond via their mobile devices, and the response is immediately projected onto the white board. That means less lag time for students to see the results, and less time grading papers for the teachers, notes Egea.

Early this year ACU expects to introduce a program, which it piloted in 2009, that will enable students to use their iPhones as their student IDs. Egea says Alcatel-Lucent enabled this application by employing near field communications technology from Bell Labs. He explains that because the iPhone doesn’t support embedded NFC technology, the university phones will have tags affixed on the back of them. That way, rather than carrying a student ID card to purchase books or food on campus or to check out library resources, a student can do those things with his or her university-provided mobile device.

ACU’s new communications capabilities also have been used to facilitate conferences on campus, notes Egea, explaining Alcatel-Lucent integrated its collaboration platform into the university’s iPhone portal to enable instant set up of conference calls – and without a requirement for participants to



disclose their private phone numbers. The university recently put this functionality to use during a virtual summit it held to share information about the new mobile learning initiative. More than 80 universities around the world participated, and each participant could see the agenda, attendee directory and other information through the iPhone portal, through which recorded sessions were later made available on demand.

The communications capabilities implemented by Alcatel-Lucent for ACU also could make campus visits a whole lot more interesting for potential students and their parents in the future. Egea says ACU today gives prospective students a tour of the campus via golf cart. One idea being batted around, he says, is to outfit those visitors with an iPhone or iPod Touch that would enable them to “touch” various readers placed around campus to get information about buildings, statues or other important points along the tour. This type of capability could also be leveraged to enable students to touch iPhone readers outside classrooms, at the library or at campus bookstores to receive a listing of the books required for their classes.

Because 70 percent of ACU revenues are from tuition, every student counts, notes Egea. The mobile learning initiative has helped the university put that thinking into practice, he adds, noting that ACU has already seen improvements in enrollment and retention since implementing the mobile learning initiative. **IT**

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By Brough Turner

Wireless Broadband Disruption – WiMAX, LTE or Wi-Fi?



LTE versus WiMAX is a standard topic in the press and at conferences, as if something disruptive was happening or might happen. Wrong! **WiMAX** and **LTE** are technical variations on the same business model providing similar services. If

we're looking for disruption, we need to catch up on what's happening with Wi-Fi.

Today, WiMAX is ahead of LTE, but only for green field deployments. All GSM operators will adopt LTE so, by 2015 to 2020, there will be billions of LTE devices sold each year. WiMAX will survive as a service platform alternative, but for the same services and business models as LTE.

Wi-Fi is a very different story. There are no carriers. Individuals, corporations, communities – anyone who's interested buys their own infrastructure and deploys it wherever they want. Carriers are still needed for Internet connectivity, but otherwise, Wi-Fi infrastructure is a completely different beast.

First, Wi-Fi and "freemium" go together. Business models range from completely free to retail sponsorship (your local coffee shop), community sharing (the FON network) and/or bundled with other services (e.g. Verizon adds Boingo to FiOS subscriptions). Yes, a few paid hotspot services remain, but they are a small part of the Wi-Fi ecosystem.

People who need completely mobile Internet connections purchase a traditional service – 3G, WiMAX or, eventually, LTE – leaving Wi-Fi hotspot aggregators to cut deals with traditional service providers, as Boingo has done with **Verizon**. Arguably, freemium is the logical result of license-exempt spectrum and infrastructure ownership.

The most important result of Wi-Fi's ownership model has been widespread adoption, leading to lower prices and ever more adoption. Projections are that there will be more than a billion Wi-Fi chips per year by 2011, with Wi-Fi showing up in all smart phones and all manner of other devices.

Today, 11n devices ship in high volumes, use 2.4GHz or 5GHz spectrum and provide 100-300mbps. New Wi-Fi silicon will deliver as much as 600mbps, and beamforming antennas will increase range and allow dramatically more wireless connections in the same area.

As consumer devices with access to more spectrum than either WiMAX or LTE, Wi-Fi can deliver more megabits per second per dollar. Expect to see both fixed and mobile carriers including free Wi-Fi access in their subscription bundles as Wi-Fi trumps femtocells. Conventional operators are not going away but, over the next decade, it's Wi-Fi that will shake up business models and drive disruption. **IT**

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

Regulation Watch

By William B. Wilhelm, Jr. and Jeffrey R. Strenkowski



VoIP and Cybersecurity Regulation

The United States is intensifying its consideration of cybersecurity issues. Congress

has introduced legislation that would require the president to establish or designate a cybersecurity panel to advise the president on United States cybersecurity status, vulnerability, and response. The president also has released a cyberspace policy review plan, which outlines the president's strategy to appoint a cybersecurity coordination official charged with preparation of policies to secure the national information and communications infrastructure, as well as cybersecurity response plans.

The Federal Trade Commission also has adopted recently cybersecurity regulations, often called the "red flag" rules, which will require certain entities, including some VoIP providers, to undertake measures against identity theft. The rules require "creditors" holding "covered accounts" to develop and use an identity theft prevention program to help the entity identify,

detect and respond to "red flags," which may indicate identity theft has occurred. The FTC's new rules apply to companies that bill for services in arrears, offer installment payment plans, or otherwise defer payment for goods or services. Covered entities can include VoIP providers, carriers, ISPs, and even equipment vendors, depending on how they manage customer accounts and billing. At the request of Congress, the **FTC** has delayed the enforcement of the "red flag" rules until June 1, 2010.

As the FTC's deadline approaches, many companies are evaluating whether they are subject to the new rules, and if so, determining what steps they must take to detect, prevent and mitigate identity theft. VoIP providers and other covered entities should therefore take steps now to ensure that they have taken appropriate steps to secure customer account information, and that they are in compliance with applicable federal and local cybersecurity requirements. **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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Resource Center

One area where more and more businesses are seeing cost savings is with their business phone service. And JoiBiz, an Atlanta-based communications solution provider, can help.

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While other companies offer PBX or voice services, JoiBiz offers customers both services for \$49.95 a month. It includes unlimited lines, and unlimited extensions. In addition, JoiBiz offers its SMB customers business class Internet service such as Full-duplex 1.5 Mbps T1, Bonded T1 and high speed DSL.

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- Breaking JoiBiz news and company product releases

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By Rich Tehrani & Max Schroeder



Revenue Continuity

Generally, this column has stressed the technical aspects of a business continuity plan, but let's not forget the ultimate BC goal – an uninterrupted revenue stream.

Two-thousand and nine was a difficult year for resellers, so increasing revenue in 2010 is a major priority. Many resellers are looking at expanding their markets. Fortunately, many resellers specialize in selling VoIP, FoIP, virtualization, SIP trunking, hosted services or a combination thereof. These resellers are uniquely positioned to take advantage of the BC market since these applications are critical BC components. The solutions are also green, plus increase security and mobility, so they are a perfect fit for 2010.

Certainly the economy has presented obstacles, but it has also opened opportunities. Companies formerly adamant about having customer premises equipment managed exclusively by in-house IT departments are now open to hosted and managed services that are a perfect fit for BC. A reseller managing CPE requires less overhead for a company than maintaining a full-time staff. Also, resellers manage multiple accounts and specialize in specific areas such as communications and messaging. On average, a reseller can provide a higher level of expertise for new

deployments and upgrades than in-house staff focused solely on maintaining their company's infrastructure.

Even if a company decides to retain its entire IT staff, many are increasingly open to using resellers in a consulting capacity for new products and upgrades. In this scenario the reseller is involved in the initial selection process and may continue on board through the implementation and training stages. This business model is not new, but today's business environment combined with 21st century solutions, is making it more popular than ever.

Hosted VoIP, FoIP and SaaS solutions further reduce operating costs. Many resellers with portfolios of CPE solutions have also become agents for service providers. These resellers can present customers with a wide variety of solutions including CPE/hosted hybrids plus gain a recurring revenue stream through ongoing commissions.

Two-thousand and nine was a difficult year, but resellers that focus on the opportunities presented by the 2010 market can have a very successful year. **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



Remotely Managing Expensive Field Equipment

Equipment manufacturers are realizing a significant opportunity to reduce support costs relating to field equipment by leveraging remotely monitoring and managing capabilities.

MRIs and other medical devices, industrial control systems, robotic machines, digital signage equipment, and other expensive field equipment require on-site health checks, software updates, and on-site expertise to verify the updates are correct. Newly available technologies provide OEMs solutions to lower their support costs by leveraging remote health monitoring, automated updates and remote connectivity – OEMs do not have to invent these solutions, but leverage the latest technological tools available on the market.

Monitoring and management solutions can function as a gateway managing a group of equipment from a centralized location, from a device connected to the equipment, or even from software on the equipment itself. Various solutions that provide value to these OEMs are geared at fully-integrated and locked-down appliances with management agents or software agents installed directly.

According to Claire Ortega, senior services product manager at NEI, "Many OEMs are experts in their respective disciplines, but may not be experts in appliances or remote agent solu-

tions. Consider new developments versus legacy equipment. With new, you can create the right computing capabilities to install the agent on the equipment. With legacy and already deployed equipment, you can reduce support costs using an attached appliance to manage a unit or multiple units."

So how do end users benefit from these remotely managed and self-contained solutions?

"By controlling and automating approved updates and alerting on failing field replaceable units, the system remains highly available," Claire continued. "...for legacy equipment, they plug an appliance in, connect it to the device to manage, run a quick set up wizard, and are up and running. In this new era of lowering IT resources, companies have little time to spend installing and configuring complex solutions as well as managing them."

With more emphasis in IT infrastructure efficiencies, these remote management capabilities allow OEMs to provide significant value ultimately to the end user. **IT**

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

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By Alan Murphy



Virtualization Security Is Taking Longer Than Expected

A few years ago I wrote a paper for SANS titled “Security Implications of the Virtualized Data Center.” I had been working in system and network security for almost 10 years and, like many IT professionals, had been relying on virtualization as a system tool for many years. While using virtualization as a sandbox for security research I was drawn to virtualization security, now called virtsec, once I realized how great the security threat was in x86 virtual computing environments.

There are certain virtualized components that can't be monitored or secured in the same manner as their physical counterparts.

The original intent for that paper was to serve as the first in a series that dug into all facets of virtsec. Starting with the basic threat analysis of moving systems from hardware to software, that paper dealt with security risks like attacking the host platform, attacking individual guests, and using a shared filesystem. These attacks were all examples of exploiting the nature of running virtual machines in a shared environment with shared resources on the virtual platform; they specifically did not delve into security of the hypervisor.

We're still working on bringing virtual platform security up to the strict level of physical security, a level that's been well understood and in place for many, many years. Virtual platform security isn't that different than securing standard data center systems, it's just an extra layer in security planning and monitoring. Where virtual systems differ, however, is in visibility: there are certain virtualized components that can't be monitored or secured in the same manner as their physical counterparts. Virtual networking is the classic example of such hidden components. Unlike physical switches, there's no easy way to place a tap on a virtual software switch port, for example, and trust that the mirrored data you're monitoring is legitimate. This concept holds true for any virtualized hardware including RAM, bus, and CPUs.

The type of hypervisor also makes a difference for virtual platform security. Hypervisors are typically lumped into two generically-named categories. Type 1 hypervisors (also known as bare-metal hypervisors) run directly on the hardware providing native access to hardware resources for virtual machines. Type 1 hypervisors can be thought of as special-purpose oper-

ating systems because they control all access to the hardware resources. Examples of type 1 hypervisors include VMware ESX and ESXi, [Microsoft Hyper-V](#), and Citrix XenServer. Basically, all major data center-class hypervisors today are type 1 hypervisors. The extent to how stripped down or embedded these hypervisors are varies drastically between implementation. VMware ESX, for example, uses a full – albeit highly modified – Linux kernel and running space to support the hypervisor environment. Due to its larger environment, ESX requires additional levels of security focused on the operating system itself. Any “stock” OS components deployed by a type 1 hypervisor increase the attack surface of that hypervisor. If SSH is enabled on an ESX host, then that host (and its running virtual machines) are susceptible to SSH-based attacks just like a physical host running SSH.

Type 2 hypervisors, in contrast, run as applications within another operating system. Examples of type 2 hypervisors include VMware Workstation and Server and Microsoft Virtual Server. Since type 2 hypervisors are applications rather than operating systems they don't manage direct access to hardware. Some security experts feel that no direct access to hardware provides an added level of security, while others believe that these systems are less secure since they're susceptible to both traditional application attacks, such as buffer overflows, as well as having to rely on the security of the underlying operating system while managing virtual machine resources.

Regardless of the type of hypervisor, securing the running environment and virtual peripherals are still the most critical parts of virtual security. An excellent example of the work being done by the virtual security community is a document recently released by CIS, the Center for Internet Security, titled “Security Configuration Benchmark for VMware ESX 3.5.” This guide highlights the steps necessary to lock-down the ESX 3.5 hypervisor environment. These guidelines are no different than those required for physical systems – secure access and logging, tight user permissions, access to hardware resources by running applications and guest virtual machines, etc – yet they're framed in a way that's applicable to virtual platforms.

Once we get past that first critical step of securing the virtual platform running environment, then we can start looking into more sophisticated attacks: guest escaping, manipulating virtual machine state during a live migration, attacking virtual CPU cores, etc.

For as far as we've come with virtualization in the data center, the lack of advanced attacks focused at the hypervisor level is a bit surprising. I still look back on my original outline for that series of papers on virtsec and wait...wait for the time when writing about guest escaping attacks and malicious virtual CPU payloads is something that someone wants, or rather needs, to read about. **IT**

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



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Beyond Legislation: Why E911 Matters

By Nick Maier

The need to comply with state E911 legislation is a prime motivator for adding E911 protection to IP, PBX and Centrex phone systems. Over the past decade, a significant percentage of RedSky E911 solutions have been sold to enterprise, government, university and school district customers with operations in at least one of the 16 states with legislation on the books.

But why don't organizations in states without E911 legislation take measures to ensure that first responders can quickly find employees, visitors and students in the event of an emergency at the same rate as organizations in these 16 states? Regardless of the presence of legislation, the potential liability risk to people and assets in these situations is real. Consider this:

- Section 5(a)(1) of the Occupational Safety and Health Act requires employers to furnish a workplace free from recognized hazards. E911 is an important component of an employer's emergency action plan. An organization cited by OSHA for workplace violations could potentially be subjected to significant fines.

- A fire, act of violence or employee accident can have a devastating impact financially and emotionally on an organization. Beyond the direct expense of loss of life and property in a crisis, operations also can be significantly disrupted.

- More than two million people suffer from on-the-job violence annually, which costs employers \$36 billion. Court decisions have held institutions and managers personally liable for safety negligence. A jury recently awarded \$50 million to the family of a wrongful death victim because the city did not get an ambulance to the asthma-sufferer's home in time. A study by Liability Consultants found the average jury verdict for a rape on business property to be \$1.2 million and for a workplace death to be \$2.2 million.

- Owners and managers are being held to a greater standard of care concerning the safety of employees, tenants and guests. According to an executive at one Fortune 500 company: "You enter the situation thinking about compliance and liability... but then you come out of the situation with a good feeling that you will have helped save a life or head off a tragedy."

- According to a survey by the Liberty Mutual Group, about two-thirds of employers report a three-fold savings for every dollar invested in safety.

Protecting your organization by equipping your phone system with E911 is not only the right thing to do; it's also a good investment. **IT**

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

Ask the SIP Trunk Expert

By Steven Johnson



Legacy Installations: The Next Wave of SIP Trunks

The buzz at the SIP Trunk Summit at ITEXPO in Miami last month was all about new market opportunities for VARs and SIP trunking providers. Cable companies have discovered the cost-savings potential of SIP trunking, and more verticals are following suit.

What's the next step, then, to further expand sales of SIP trunking?

Legacy installations: While most have focused on the opportunity to migrate business customers from PSTN service in concert with an upgrade to a SIP-ready IP PBX system, there is also a significant opportunity to migrate customers that maintain legacy (non-SIP) PBXs and contact center systems.

There are a great many companies that have yet to make the switch to an Internet-based PBX. Whether the issue be cost, lack of expertise in making the migration or anything in between, the fact is there are a large number of small to medium businesses looking to leverage SIP trunks but unable to upgrade to an IP PBX.

The solution is a SIP-capable enterprise session border controller deployed at the network edge between a wide area IP network and the corporate LAN, securely passing SIP signaling and VoIP media streams to and from the corporate LAN. When combined with a PSTN/SIP gateway, a traditional PBX can be compatible with SIP trunking service providers, and the benefits of SIP trunking services are then available to the enterprise without the need for upgrading the PBX.

This setup will allow enterprises utilizing legacy PBX and contact center systems to adopt SIP trunks easily and securely as a replacement for traditional PSTN voice services.

This combination of products also presents a significant new market opportunity for SIP trunking providers and their resellers, to approach new markets with the same cost and capability benefits that they provide to firms that have upgraded to an IP PBX. **IT**

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

By Hunter Newby



Welcome to the Next Decade

It was not that long ago when the mobile phone business was analogous to voice services and revenue. There quite simply was not anything else to do with a mobile phone. All of the industry metrics were gauged on voice minutes of use. Average revenue per user was a bundle of voice minutes including roaming charges, peak and off-peak minutes, and overcharges for minutes beyond your minutes bucket for a fixed flat-rate. That has largely changed, and the shift continues.

What caused the shift? Initially, it was the merger between paging devices (standalone text) and mobile voice. PageNet and others are good examples of the service providers that lived in a mobile text world separate and distinct from full-duplex calls for many years. Then there was the BlackBerry, which began as a dedicated email device, but morphed in a full-blown mobile business device as it crossed over in to the voice world with the first "BlueBerry." It could also store all of your Microsoft Outlook contacts for one-click dialing, which was a major breakthrough. Obviously, the BlackBerry was squarely in the email camp from the start and as a result possessed an IP transmission core and therefore a natural inclination to bring more things IP in to the device. This served as the seed and primary motivation to convert circuit-switched voice in to VoIP, since email clearly would never be a circuit-switched application. This transition led to an even greater requirement for networks that were built to support packets and not circuits.

Email was decidedly different than just text, and still is. It is also very distinct from the legacy voice world of Erlang tables and circuit-based capacity utilization metrics for network planning. When all of these elements merged, IP won out as the transmission protocol. This in turn has driven Ethernet as the preferred transport protocol given the more efficient packet-based relationship between the two, leaving frame relay and ATM to see the same fate as TDM. As circuit-switched voice gets pushed aside for VoIP in the mobile world, it becomes the built-in demand driver for Ethernet. Once Ethernet transport is established it enables the scalability to support other higher capacity IP-based services to the mobile phones as well, such as video. This is what drives the development of new mobile applications.

Today the world views mobile devices and services in a totally different way. The world basically gets broken out in to five camps that matter most. They are the users, developers, device manufacturers, network operators and investors. They each feed off of the others in what is becoming a very dynamic furnace driving the engine of innovation beyond just the platform of mobility.

In simple terms, the users will use and spend money for access to applications that improve their lives in various ways. Access as a service is the single most important component, and it is created

and offered by the network operators. They also offer the most basic applications of voice, text and email, which we all know and have lived with for several years now. These applications give us what has become an essential connection to our communities of interest and need. These are the new basics of life for people that live in the civilized world. Beyond these there are new applications being developed for mobile network devices, and this dimension is largely being fueled by devices such as the Apple iPhone.

Apple's iPhone really captures the essence of the new mobile networked future, and their success in the mobile (device) phone business is the evidence of that. They came from the computer world, went in to the music device world with the iPod (the greatest personal music innovation since the Sony Walkman) and have now blown away all other mobile device manufacturers with the iPhone. This evolution is a parallel example of the same shift from circuit to packet, TDM to IP and Ethernet, but it is actually much more than that. The iPhone allows anyone to create an application and sell it directly through an existing delivery mechanism and into a massive marketplace with consumers ready to buy. Most of the marketing is viral and all of the financial settlement is built-in. Incredible! Look at how far we have come – and we are only at just the beginning!

Obviously, the BlackBerry was squarely in the email camp from the start and as a result possessed an IP transmission core and therefore a natural inclination to bring more things IP in to the device.

The investor camp is the luckiest of all. A chain reaction of investment opportunities has been started, and the capital requirements and returns are untold at the moment. One thing is for certain, the path to mobile broadband adoption is clear. Just look at the other countries that are ahead of the U.S., such as South Korea, Japan and Sweden. Look at the network infrastructure they currently have in place to support their networked lifestyle and economies – from fiber that supports the Ethernet networks that supports the IP networks, to the wireless towers themselves, all the way to the device manufacturers and everything in between. All of that is necessary to be developed and delivered in the U.S., and it all requires investment. The return on that investment will be a multiple of the return enjoyed by the investors in those other markets given the fact that the U.S. is so much larger than all of them – combined. Two-thousand and ten is shaping up to be an incredible year and the start of an amazing decade of transformation for the entire world. **IT**

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

By Peter Radizeski



Giving Your Channel the Tools for Success

Most providers turned inward in 2009, believing that only their direct sales forces could drive revenue in the downturn.

There was upheaval in the carrier channel ranks all year. When faced with shrinking margins, poor cash flow and limited access to capital, you look inward. Navel gazing.

With more than 1,000 providers of VoIP in the U.S., it is a crowded space without much brand recognition. It requires solution selling from a trusted advisor. Your direct sales rep is not that guy (in most cases). But the channel is (in most cases). The channel is the feet on the street. They have the pulse of their marketplace. Also, as entrepreneurs, they are flexible and innovative, especially when faced with the fight to survive.

A recent survey showed that only 3 percent of prospects understood the sales presentation. It underlines my point that you need a relationship to sell something like hosted PBX. Why? Because it is outside-the-box thinking. Remember the RBOC's couldn't sell Centrex, which is a close cousin. They could barely explain Centrex. That explains the recent survey that found "only 3 percent of the prospects surveyed

said they fully understood most of the terms used in the sales presentations. Prospects said the confusion convinced them that the products or services involved would be difficult to install and maintain."

Carriers need to get engaged with the channel to offer proactive support including training, case studies, ROI sheets, target markets, value statements, and guidance on how to differentiate from all others. Without those kinds of tools, the channel will pick the lowest-cost provider because that's all that's left without a clear value proposition.

Why do you think that CLECs wage the price war? It's because there's no differentiation in integrated T1 services other than bucket of minutes. The same is happening with SIP trunking. I watch panel after panel of carriers that cannot give an answer as to why you and not them.

Here's the other thing about having all that support: it means we know you have your act together. That gives us peace of mind. **IT**

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

<http://tmcnet.com/21469.1>

NET, UC Planet Form Global Alliance
Network Equipment Technologies and UC Planet have inked a sales and product alliance targeting the unified communications market. The partnership allows NET to resell UC Planet's Lookout software for IP WAN bandwidth management to NET's enterprise and government customers, channel partners and carriers around the world. The deal also enables NET to integrate UC Planet's Lookout software into future NET products.

www.net.com
www.ucplanet.net

<http://tmcnet.com/21304.1>

Kadient, Callidus Ping SaaS
Callidus Software Inc., a player in sales performance management, and Kadient, experts in sales enablement, have joined forces with Ping Identity to provide clients with single sign-On access to their cloud-based sales tools. "Because Ping Identity's SaaS SSO solutions are designed to implement easily, and work seamlessly with existing SaaS-based business application and identity management environ-

ments, we are recommending them to our clients who want Single Sign-On access to Callidus On-Demand," says Shamyo Chatterjee, vice president IT and facilities of Callidus Software.

www.callidussoftware.com
www.kadient.com

<http://tmcnet.com/21377.1>

Panasonic, Skype Bring Voice, Video Calls to HDTV

Consumers will be able make voice and video calls over Skype using Panasonic's line of 2010 VIERA CAST-enabled HDTVs scheduled for launch in spring 2010. With the Skype feature, Panasonic VIERA HDTV owners will not only be able to share photos and videos online, they also will be able talk to family and friends from the comfort of their living rooms.

www.panasonic.com
www.skype.com

<http://tmcnet.com/21447.1>

StartReady Signs Distribution Deal

Tele-Communication Inc. has entered into a partnership with Dutch com-

pany StartReady to distribute what they say is the first-ever all-in-one appliance for Microsoft's Office Communications Server. The StartReady UC appliance allows an organization to pilot or deploy OCS, a powerful unified communications solution, in a matter of days on a single, managed appliance at a very affordable price, according to the companies.

www.headsetexperts.com
www.startready.com

<http://tmcnet.com/21365.1>

ActiveVideo, TAG Team on Games Effort

ActiveVideo Networks, a provider of cloud-based interactive television solutions, has entered a partnership with TAG Networks to offer enhanced gaming experiences to broadband-connected consumer electronic devices. TAG runs a "massively deployable" television games channel for cable, IPTV and Internet-connected devices.

www.activevideo.com
www.tagnetworks.com

By Doug Martinez

Government Technology Spending is Still Alive

Despite the still uncertain economic conditions, the government continues to invest in IT. At the recent Government CIO Summit held in Lansdowne, Va., interesting insight was offered into the government IT challenges and priorities for coming years, including spending.

Of note, the economy will continue to impact spending behavior and investments in 2010 and beyond. While the typical discussion of technology was noticeably absent among CIOs, it was clear that IT spending is alive. In fact, it was apparent that most CIOs are evaluating methods to extend the life of and maximize investments in IT infrastructure assets.

For the immediate future, innovation investments are on the shelf until tax revenues return or vendors can show a hard ROI model. It is also apparent that CIOs are proactively engaging line of business managers and IT managers to close the gap on service requirements, delivery management and inefficiencies in the organization. As an example, teleworking and flexible hours are becoming a premium incentive to government employees and IT. This requires a mix of remote worker solutions. Integrating thin client devices with a SIP-based softphone is a true advantage to remotely managing and administering service. Since the thin client reduces bandwidth requirements, telephony performance is enhanced and businesses have the potential to improve operations, consolidate assets and reduce cost.

Interestingly, VoIP migration and UC were also top of mind, with data center consolidation and virtualization, VoIP and UC hot topics of discussion, largely due to similarities in management challenges. VoIP offers more robust remote management capabilities and is generally associated with UC capabilities and collaboration tools. After all, what is a car without tires! UC has

tremendous value for the incoming millennial workers, ages 16 to 45, and the CIOs are getting behind it on every front. Today, millennials, comprised of generations X and Y, represent 35 to 45 percent of the workforce, a number that will continue to grow in the coming years. Generation Y, those ages 16 to 28, are trendsetters, a perfect match for UC applications and tools since the group as a whole generally adapts quickly to new technology and change.

In an era of downsizing governments and cost-conscious government managers, you can engender an endearing case for outsourcing almost anything. Business communications, including PBX communications, expertise can still be an enviable quality, but an outright preference to outsourcing PBX over self management is not readily apparent. In fact, the pendulum is swinging to self management. More and more, government clients are finding that they can self manage as network performance stabilizes. Vendors need to ask themselves a hard question: What value do we bring to our customer? Plain vanilla commodity services face consolidation or elimination. Value-added services and innovation put partners in a different class of partnership with the customer.

However, budget is not the only functional area being affected. IT downsizing and furloughs are affecting the ability of government organizations to deliver services. Additionally, baby boomers, a generation that generally accounts for more than 50 percent of government workers, are facing retirement age, threatening government organizations with the loss of seasoned employees with advanced skill sets; training may be a luxury that some organizations can no longer retain. Government CIOs emphasize that they expect their vendors to help fill these gaps and become partners in optimizing business infrastructure investments going forward. **IT**

Doug Martinez is director of government accounts for [NEC Corporation of America](http://www.necam.com) (www.necam.com).

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By Paula Bernier

Why the Second Round of the Broadband Stimulus Will Go More Smoothly

The federal government's broadband stimulus program has been riddled with delays, but the National Telecommunications and Information Administration and the Rural Utilities Service have learned from the experience, and last month they put in place second-round rules that could make things move forward more smoothly from here on out.

The NTIA and RUS, which for the second round of the broadband stimulus each issued their own notice of funds availability documents, have laid out what they expect to allocate for each type of project, and for each winner within each category. That's a significant improvement over the last round, during which applicants didn't even know how to gauge what might be a reasonable request.

This round, the NTIA will disperse \$2.6 billion. That includes \$2.35 billion for comprehensive community infrastructure projects, \$100 million for sustainable broadband adoption and \$150 million for public computer center initiatives. Each winning CCI application, according to the NTIA, likely will be in the \$5 million to \$150 million range. Winning PCC and SBA applications, meanwhile, will probably be between \$500,000 and \$15 million each, the NTIA says.

RUS this round has \$2.2 billion to share. That, RUS explains, will include \$1.7 billion for last mile projects, \$300 million for middle mile projects, \$100 million for satellite projects, \$5 million for rural library and technical assistance and \$95 million in reserve. The satellite category is a new one for RUS this round, and it is expected that the agency may use the technology to bring broadband to areas for which it doesn't receive any broadband stimulus proposals.

The agencies ask that those seeking broadband stimulus funds send their applications to one or the other of them, but not both. That should lessen the review burden on the NTIA and RUS, and thus potentially allow them to move more quickly in this phase of the program.

The review process also has been streamlined. RUS says it will go from a two-step to a one-step process, and the NTIA aims to gather all information from applicants up front and will only ask for additional information after that on an as-needed basis.

While grants in the first round had required a 50 percent match from applicants, the government this time around will fund up to 75 percent of a given project, so the applicants need only bring the other 25 percent to the table. That said, those applications in which organizations offer to put more skin in the game will be looked upon favorably. A 20 percent match is required for all NTIA applications this round, and those applications with a 30 percent or greater match will be most favored, according to the agency.

Cost per premises passed guidelines have also been provided in this round of rules. Any project costing \$10,000 or more per premises passed will not be considered. While that would seem to emphasize

the importance of cost-effective infrastructures, some indicate it also could be viewed as a move more favorable to the wireless industry, whose infrastructure can be less expensive to build but which also tends to offer far less bandwidth. Also, NTIA project proceeds can be applied not only to capital expenditures, but also to operational expenditures, which could help some projects be more sustainable.

This round the NTIA has made clear its focus on middle-mile projects and those involving community anchor institutions (and this time the applications involving community anchors don't necessarily necessarily have to be in unserved or underserved areas – a big change). Meanwhile, RUS has indicated it will handle most of the last-mile projects, especially those in which the last-mile component exceeds 20 percent of the total project cost.

The RUS Broadband Initiatives Program, better known as BIP, will target areas where not more than 50 percent of locations have more than 5mbps combined upstream/downstream bandwidth. While projects in areas that are at least 75 percent rural are not required to apply first to BIP, those applicants that are current RUS borrowers, are proposing projects involving last mile service areas that are 75 percent or more rural, or have a last mile component that exceeds 20 percent of the total eligible project cost, are strongly encouraged to apply to RUS under BIP.

Another significant change to the rules this time around is the removal of the remote rural language, which many in the industry had lobbied strongly against.

The first-round NOFA defined remote rural areas as those at least 50 miles away from a city or town of at least 20,000, or 50 miles away from an urban area next to a city of at least 50,000 inhabitants. The first-round NOFA required those seeking funds to build broadband infrastructure in areas defined as remote rural to forward their applications to RUS to be considered for the BIP program. If a service provider applicant operates in an area that is defined by the U.S. Census as at least 75 percent rural, the first-round NOFA said that company had to go through RUS for broadband funds.

The problem with that was unless the service area was classified as remote rural, the RUS BIP program in its first round limited the grant funds for projects up to 50 percent. And the BIP program in its first round was weighted more heavily toward loans than grants. Meanwhile, the NTIA's Broadband Technology Opportunities Program, aka BTOP, in its first round provided grant funds for up to 80 percent of project costs for non-rural areas. That meant suburban and urban populations and providers were better positioned to benefit from the broadband stimulus than were those in rural areas – the very locations that most believed the broadband stimulus program was created to serve.



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Those interested in watching or commenting on the round two action may also be interested to know that the NTIA expects to post announcements identifying each application received along with a list of the census block groups or tracts that each application proposed to serve through its project, in addition to the information it is required to publicly disclose pursuant to the Recovery Act. That means there will be a greater level of transparency this time as compared to the first round, in which the NTIA only published the names of the applicants and some other basic information about them.

NTIA has established a 15-day window during which incumbent service providers are allowed to comment on applications by prospective fund winners who want to build broadband networks in their existing service areas. RUS will allow 30 days for comment.

Just days after the agencies announced their second-round rules, RUS came out with a handful of new first-round broadband stimulus awards, which totaled \$310 million. Of course, this group of awards is just part of the money to be dispersed by RUS during the first round. Additional announcements will be made on a rolling weekly basis going forward, a USDA spokesman tells INTERNET TELEPHONY.

These first-round broadband stimulus funds, which will bring high-speed Internet connections to 14 rural communities around the country, have been allocated as such:

- \$88.1 million in grant and loan monies will go to an Alaskan telecommunications company that will build middle mile networks to connect 65 towns and villages in southwestern Alaska to the Internet;
- \$19.1 million in grant and loan funds will go to a Missouri electric cooperative to build a fiber-optic network that will reach nearly 5,000 homes, businesses, public safety entities and community organizations in rural Ralls County, Mo.;
- a \$3.9 million grant will go to a unit of TDS Telecommunications Corp. to build a DSL network to serve residential, business and community-related organizations in sparsely populated parts of Alabama;
- a \$376,000 grant and loan will go to an as-yet-specified telephone company to build a WiMAX network to service 325 homes in northeast Iowa.

This news follows the broadband mapping awardees the agencies announced several months ago and the handful of initial first-round winners the government revealed in December.

To announce the first of the first-round awards, Vice President Joe Biden visited Dawsonville, Ga. He announced a group of awards that total approximately \$182 million and involve 18 broadband projects in 17 states. Those federal monies from the NTIA (about \$129 million) and RUS (about \$54 million) are being matched by more than \$46 million in private investment.

A middle-mile award went to North Georgia Network Cooperative, which plans to build a fiber-optic ring to cover an eight-county area with a population of 334,000 in the northern Georgia foothills of the Appalachian Mountains. This project involved \$33.5 million in grant monies and 20 percent of the cooperative's own funds. The ring is expected be avail-

able to all ISPs that want to connect to it.

ION and the Development Authority for the North Country also were among the winners, receiving notice their joint public/private application would garner a \$39.7 million grant. The partners expect to use the funds to build a wholesale middle-mile network in upstate New York to connect more than 100 community institutions such as clinics, colleges and libraries. They say the new facilities also could enable last-mile connections to 250,000 households and 38,000 businesses in New York, Pennsylvania and Vermont.

Meanwhile, a \$25.4 million grant will enable Biddeford Internet Corp., a partnership between the University of Maine and service providers, to build fiber optic rings that will pass more than 100 communities with 110,000 households. They also will interconnect 10 University of Maine campuses.

Consolidated Electric Cooperative was awarded \$2.4 million for a 166-mile fiber link to connect 16 electrical substations for a smart grid project in north central Ohio.

And three awards were announced to help fund a 4G wireless network in Alaska; a fiber-to-the-home project by Bretton Woods Telephone Co. in New Hampshire; and a \$1.6 million library-based computer center program in Arizona.

This first group of awardees concerned some parties given all of the winning programs, with the exception of the three mentioned in the paragraph directly above, target middle-mile as opposed to last-mile network deployments.

However, as mentioned earlier, the NTIA and RUS have made clear that during the second round of the broadband stimulus effort the former agency will focus mainly on middle mile proposals while the latter will emphasize last mile projects. **IT**

Important Dates

Jan. 15	NOFA was announced
Jan. 25 – Feb. 12	One-day workshops will be held by NTIA and RUS to further define application rules
Feb. 16 – Mar. 15	Agencies will accept applications
June	NTIA BTOP round-two awards will begin to be announced, on a rolling basis
Sept. 30	All NTIA grants are expected to have been awarded

** RUS has not disclosed its timeline for announcing awards, but it's expected to be similar to what NTIA has announced*

Introducing the **UNIFIED COMMUNICATIONS** Global Online Community



Community Features:

- » Breaking news in the Unified Communications market as it happens
- » Valuable resources including white papers, feature articles, and best practices to guide UC adoption decisions
- » In-depth look at the features and benefits of UC as well as important issues such as planning, buying, and deploying a solution
- » Examination of the key sub-components (email, voice, mobility, web conferencing) integrated within unified communications



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

<http://tmcnet.com/21329.1>

DigitalBridge, NuVox Partner on WiMAX

NuVox, a competitive communications provider of voice, data, managed services and security solutions for business customers throughout the Southeast and Midwest U.S., has entered into partnership with DigitalBridge Communications. The company's are combining DBC's WiMAX operating platform with NuVox's managed services.

www.digitalbridge.com
www.nuvox.com

<http://tmcnet.com/21334.1>

Olympic Sponsorship Rights Move to Avaya



Avaya has replaced Nortel as a sponsor and an official supplier to the Vancouver 2010 Olympics and Paralympic Winter Games, which are taking place Feb. 12-28 and March 12-21, 2010, respectively. Avaya now appears as "the Official Supplier of Converged Network Equipment for the Vancouver 2010 Winter Games." Avaya inherited the sponsorship when it purchased Nortel's enterprise solutions business for \$915 million on Dec. 4.

www.avaya.com

<http://tmcnet.com/21428.1>

Intermedia Plays Host to Exchange on Nexus One

Hosted Exchange services from Intermedia are available on Google's Nexus One smartphone. The hosted Exchange services include Exchange 2010 and Exchange 2007. Intermedia provides communications services, including hosted Microsoft Exchange, to small- and mid-sized businesses.

www.google.com
www.intermedia.net

<http://tmcnet.com/21429.1>

Ford Taps INRIX for Enhanced Routing

INRIX will be supplying Ford Motor Co. with real-time traffic information and enhanced routing for use in Ford motor vehicles with factory installed SYNC. INRIX's real-time traffic information system covers 260,000 miles of roadway including 100,000 miles of arterials, city streets and secondary roads to provide drivers with advance information about congestion on their routes.

www.ford.com
www.inrix.com

<http://tmcnet.com/21436.1>

Verizon Leverages EV-DO for Internet Backup

Small- and medium-sized businesses now can receive Verizon Internet access coupled with automatic wireless broadband backup. Verizon Internet Dedicated Access with Mobile Broadband routes business traffic to the Verizon Wireless 3G EV-DO broadband wireless network in the event of a service disruption. The product is targeted at businesses with distributed locations that primarily use IDA for outbound traffic, Web research or point-of-sale transactions.

www.verizonbusiness.com

<http://tmcnet.com/21450.1>

GE Targets China with Green Effort

GE plans to spread the benefits of smart grid technology to China. As the first step, GE is building an extensive smart grid demonstration center in the Yangzhou New Economy and Development Zone, located on the Yangtze River in China's Jiangsu province. The demonstration center will verify how GE technologies deployed throughout the world can help China improve the reliability, efficiency and carbon footprint of its energy delivery, company officials said.

www.ge.com

<http://tmcnet.com/21476.1>

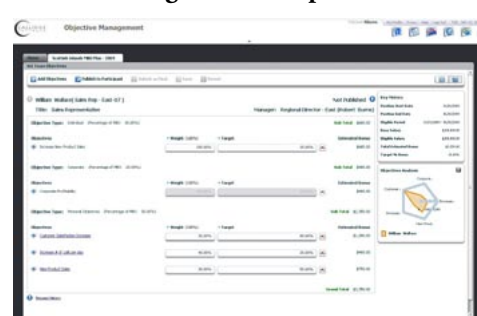
WorkPlace Promotes NaviSite

NaviSite Inc. has been selected by WorkPlace Systems to host WorkPlace OnLine, the company's SaaS workforce management solutions. The first major installation was at a major North American retail chain with 4,000 stores and was deployed in 90 days.

www.navisite.com
www.workplacesystems.com

<http://tmcnet.com/21435.1>

Healthcare Organization Taps Callidus



Philips Healthcare will use Callidus Monaco's Objective Management solution to develop and manage its sales force. Objective management aids companies to broaden sales incentive plans and, in turn, better align corporate objectives with sales behavior.

www.callidussoftware.com/solutions/monaco/
www.medical.philips.com

<http://tmcnet.com/21474.1>

Navy Looks to GTS, SteelEye for IT Solution

SteelEye Technology Inc., a provider of business continuity and disaster recovery solutions for multi-vendor IT infrastructures, and Global Technical Systems, the Common Processing System Prime Contractor, have entered into partnership to deliver a highly available infrastructure to support the U.S. Navy's new CPS. In this partnership, SteelEye Protection Suite for Linux Multi-Site Cluster Edition will ensure the continuous availability of host software applications designed to support the Navy's combat systems across its entire fleet.

www.gtshq.com
www.steeleye.com

<http://tmcnet.com/21492.1>

Report from Gartner Looks at SaaS

Gartner's report, "Market Trends: Software as a Service, Worldwide, 2008-2013, Update," estimates that global software-as-a-service revenue will reach \$7.5 billion in 2009, a 17.7 percent increase from 2008 revenue of \$6.4 billion. The report predicts the SaaS market will show consistent growth through 2013, when worldwide SaaS revenue will total more than \$14 billion for the enterprise application markets.

www.gartner.com

<http://tmcnet.com/21316.1>

Insight: Worldwide Telecom Continues Growth

The worldwide telecommunications industry continues to expand, as advances in wireless services in emerging markets offsets the spending slowdown in the advanced economies. These findings are revealed in the latest market analysis report from Insight Research Corp., which says overall telecommunications services revenues will grow at a compound rate of nearly 13.8 percent over the next few years, reaching \$3.7 trillion by 2015.

www.insight-corp.com

<http://tmcnet.com/21468.1>

Huawei Expands in India



Bangalore, India, is set to get a substantial boost from **Huawei** as the company plans to invest \$500 million over the next five years in an expansion that is expected to double the size of the company's employee headcount, to 4,000. The investment is part of a long-term commitment made by Huawei to position its operations in India as a hub for the company's global operations.

www.huawei.com

<http://tmcnet.com/21317.1>

New Release of Mediaroom Makes IPTV Bigger

Microsoft Mediaroom 2.0, the latest version of the company's widely deployed **IPTV** platform, is designed to enable service operators to provide TV to more subscribers than ever before and deliver more content to more screens than the previous version. Operators will be able to deploy Mediaroom 2.0 to power the delivery of complete television services, including those with digital video recording, on-demand, interactive, and other functionality. It supports access to both operator-hosted and externally hosted content.

www.microsoft.com

<http://tmcnet.com/21322.1>

Telepresence to Come Home

Cisco System Inc. is bringing high-end videoconferencing home. Home telepresence from Cisco will deliver consumer video service using existing HDTV technology and broadband connections. Cisco expects to launch trials around the technology with Verizon this spring and with France Telecom in late 2010.

www.cisco.com

<http://tmcnet.com/21335.1>

T-Mobile Drops Efforts Around Wireline VoIP

The wireline-based @Home service offered by T-Mobile is no longer being marketed to new customers, according to reports. The service was introduced in July 2008 and cost \$10 a month. According to analyst Bernie Arnason, it was "a Vonage-like VoIP service that gave customers home phone service via their broadband connection," providing "a Linksys adapter that connected to a customer's broadband network and any home phone."

www.t-mobile.com

<http://tmcnet.com/21364.1>

Net Neutrality Case Lives On

Comcast is appealing the FCC's order related to net neutrality, questioning whether the commission has legal authority to mandate net neutrality. A ruling is expected this spring. The FCC last year initiated plans to require Internet providers to give equal treatment to all data flowing over their networks.

www.comcast.com

www.fcc.gov

<http://tmcnet.com/21395.1>

NTIA, RUS Play Broadband Matchmaker

The National Telecommunications and Information Administration and the Rural Utilities Service, the agencies in charge of the federal government's broadband stimulus program, have emphasized their interest in seeing applicants joint forces to seek funding for proposed deployments. Now they've taken this idea a step further by introducing a new online tool, called BroadbandMatch, aimed to facilitate such partnerships.

<http://match.broadbandusa.gov>

<http://tmcnet.com/21421.1>

Ciena Wins ETC Business



ETC, a local, broadband, cable TV, telephone, wireless phones and security company serving north Georgia and the Copper Basin area, has selected Ciena Corp. for its CN 4200 FlexSelect Advanced Services Platform. The company choose Ciena's solution to upgrade its backbone network with additional capacity; optical protection switching for resiliency against accidental fiber cuts; and the ability to offer SONET, Ethernet, storage and digital video services via programmable ports.

www.ciena.com

www.etcnow.com

<http://tmcnet.com/21432.1>

Search Giant Seeks Wholesale Power Authority

Google Inc. reportedly submitted a request with the Federal Energy Regulatory Commission seeking permission to buy and sell electricity to help it address its energy needs. If the company gets the authority it requested, it would also be able to sell transmission and fuel to other users.

www.google.com

<http://tmcnet.com/21446.1>

VividLogic is Target of SeaChange Acquisition

SeaChange International Inc., a provider of software and hardware solutions for video-on-demand television, has entered into a binding agreement to acquire all of the outstanding shares of VividLogic Inc., a privately-owned, California-based company that provides software and services to cable television service providers, set-top box manufacturers and consumer electronics suppliers.

www.schange.com

www.vividlogic.com

<http://tmcnet.com/21393.1>

Nokia CEO Lays Down \$1M Challenge

Emerging countries are ripe opportunities for smartphone application developers. That's the word from Nokia CEO Olli-Pekka Kallasvuo, who is trying to drive innovation on that front through the Nokia Growth Economy Venture Challenge. In an effort aimed at spurring those who develop services, hardware and software to target markets in which incomes are \$5 or less per day, Nokia pledges to make a \$1 million investment in the winning business idea of the challenge.

www.nokia.com



<http://tmcnet.com/21373.1>

CEA: Wireless Handsets Will Lead in 2010

The wireless handset category is expected to become the primary revenue driver for the U.S. consumer electronics industry in 2010, according to the Consumer Electronics Association. Smartphones alone will generate nearly \$17 billion in shipment revenue and more than 52 million unit sales this year. Smartphones comprise more than 30 percent of total wireless phone shipments, with that number increasing in the years ahead, the CEA said.

www.ce.org

<http://tmcnet.com/21389.1>

AT&T: Vehicle, Tracking Connections Could Hit \$1B

Connections to car entertainment systems and tracking devices could create as much as an additional \$1 billion of revenue for AT&T over the next few years, says Glenn Lurie, AT&T's head of emerging devices. Lurie says AT&T already has plans to add wireless services to almost 20 consumer de-

vices, such as e-readers, mini-computers and digital photo frames, in the near future. In the next few years there could be as many as three wirelessly connected devices for every person in the United States, Lurie suggests.

www.att.com

<http://tmcnet.com/21431.1>

FCC Chairman Talks Spectrum

Julius Genachowski, chairman of the Federal Communications Commission, in his speech at last month's Consumer Electronics Show, continued to push his message that the wireless industry needs more spectrum and that he'll do whatever it takes to get it. Additionally, he said, the FCC is dedicated to working with the wireless industry to explore how to improve efficiencies in how to use spectrum. Both efforts are aimed at providing more spectrum to enable wireless technology expand the availability of broadband within the U.S.

www.fcc.gov

<http://tmcnet.com/21411.1>

Navigation Outfit Offers Service for Life

TomTom has unveiled Lifetime Traffic Updates, a new service that lets customers automatically receive traffic updates during the life of the company's navigational GPS devices. The new service is expected to be available with a range of TomTom devices starting in the second quarter.

www.tomtom.com

<http://tmcnet.com/21440.1>

XCO Springboard Scores with NHL Team Win

The National Hockey League's Atlanta Thrashers plan to use XCO Springboard, a smartphone application and content management product, to bring content to its fans. Thrashers officials said they will use it to connect directly with fans to "share powerful content and create unique experiences using this mobile technology."

www.xcosoftware.com

<http://tmcnet.com/21460.1>

GulfMark Sails with CapRock

CapRock Communications, a global provider of satellite communications, has entered into a three-year contract with GulfMark Offshore to deploy its

broadband maritime service, SeaAccess Communications, onboard its fleet operating in the North Sea and along the coast of Africa. SeaAccess' VSAT services will enable GulfMark to extend its corporate IT network and applications to its vessels and provide onboard crew morale services. The GulfMark Group operates significant fleets in the North Sea, Southeast Asia and the Americas.

www.caprock.com

www.gulfmarkoffshore.com

<http://tmcnet.com/21459.1>

Celeno, Maxim Partner on Wireless HD Home Solution



Maxim Integrated Products, a major player in analog and mixed-signal silicon solutions, and Celeno Communications, a provider of semiconductors for multimedia Wi-Fi home networking applications, have entered into collaboration to provide whole-home wireless HD solutions. The companies are now offering a joint reference design that can be embedded into HDTVs, gaming consoles, digital video recorders, laptops, Blu-ray players, set-top boxes and home gateways.

www.celeno.com

www.maxim-ic.com

<http://tmcnet.com/21477.1>

iMobilize Expedites App Delivery

Apple Inc. has approved the proprietary mobile content delivery system developed by i-Mobilize, a subsidiary of Metatron Inc. Metatron officials say the system allows an exponential increase in the capacity and speed of content deployment and is the first system of its kind to be approved by Apple for use on its iTunes, iPhone or iPod Touch platforms.

www.metatroninc.com

<http://tmcnet.com/20361.1>

TeleManagement Releases Version 8.1 of its WinBill TEM Application

TeleManagement Technologies Inc., a company specializing in telecom expense management solutions, has released 8.1 of its WinBill application. To meet the demands of clients and to accommodate changes in the industry the company has added new functions such as unlimited expense categories for tracking all IT related expenses, expanded wireless management and reporting capabilities, and new dashboard graph reporting.

www.telmantec.com

<http://tmcnet.com/22350.1>

OpDecision Supports Cell Phones for Soldiers Program

OpDecision, a corporate wireless expense management firm, has formed a partnership with Cell Phones for Soldiers. More than 150,000 troops are serving overseas and are away from their families, and OpDecision and Cell Phones for Soldiers wants companies and individuals to help them by

donating cell phones. Since Cell Phones for Soldiers was founded by teenagers Robbie and Brittany Bergquist from Norwell, Mass., with \$21 of their own money, the organization has raised almost \$1 million in donations and distributed more than 500,000 prepaid calling cards to soldiers serving overseas.

www.opdecision.com

<http://tmcnet.com/22351.1>

Australian Enterprises Demand More Control, Savings on Telecom Expenses

Australian enterprises are showing increased demand for telecom expense management services, as CFOs and CIOs seek more accountability and efficiency from their telecommunications spend, according to Cable & Wireless Worldwide. "We anticipate this trend will continue into 2010, as corporations plan for growth after the most significant recession of our time. Corporations are not just looking for the usual 'cut costs' approach, instead, they're looking to implement a long-term

fix for the perennial corporate challenge of managing telecom charges," says Nick Lambert, managing director, global markets, Cable & Wireless Worldwide.

www.my-cw-portal.com

<http://tmcnet.com/22366.1>

Telesoft Report Says TEM Key for Business Savings

According to the Telesoft report, TEM has emerged as one of the most effective methods organizations are using to cut millions in wasted voice, data and wireless expenses. The report reveals that 69 percent of respondents compare expenses to budget by business unit as a key performance indicator for monitoring the performance of their TEM solution. The second most commonly cited KPI, at 58 percent, is the actual cost reduction savings. Increased operational efficiencies and improved management was the third most cited KPI of success of TEM programs.

www.telesoft.com



<http://tmcnet.com/21308.1>

OHA Get New Member in Wipro

Wipro Technologies, the global IT services business of Wipro Ltd., has joined the Open Handset Alliance, extending its device development and service integration expertise around the Android open mobile phone software stack. OHA is a partnership of more than 60 global mobile industry leaders working together to accelerate innovation and offer consumers an enhanced mobile experience.

www.openhandsetalliance.com

www.wipro.com

<http://tmcnet.com/21320.1>

Linux-based PowerDVD Enables Mobility

CyberLink has developed a Linux version of PowerDVD to support Intel's Linux-based Moblin 2.1 operating system. It was designed for mobility and smaller screen size on the net-book platform. In order to deliver a smooth playback experience and improve overall performance, Pow-

erDVD uses the microarchitecture of the Intel Atom processor.

www.cyberlink.com

<http://tmcnet.com/21683.1>

Why Asterisk Thrived in the Midst of Recession

The recessionary economy forced many businesses to consider alternative telephony solutions in an effort to reduce costs, leading many of them, including larger enterprises and government entities, to discover open source. "In 2009, the entire world economy melted, which has proven to be very beneficial for Asterisk," says Digium CEO Danny Windham. "The downturn has forced people to consider costs much more closely, creating a major opportunity for Asterisk, Digium, and its developer and partner community." In fact, new developers are joining the Asterisk community at a rate of nearly 60 percent annually, and the open source adoption rate in some countries is approaching 80 percent.

www.digium.com

<http://tmcnet.com/21686.1>

MuleSoft Moves Uphill

MuleSoft, the web middleware company, obtained record growth in 2009 in bookings, recurring subscription revenue, and customer wins. The company also quadrupled its product footprint, announcing general availability for three new products, Tcat Server, iBeans, and Mule Data Integrator.

www.mulesoft.com

<http://tmcnet.com/21684.1>

Despite Recession, SugarCRM Says 2009 Was Sweet

SugarCRM says it had a record year in 2009. In addition to a record year in revenue, the company's customer base, community and partner development grew to new heights. Newly appointed CEO Larry Augustin said that – after such a solid 2009 – SugarCRM is incredibly well positioned for 2010, with an exciting set of customer, partner and product announcements that will accelerate innovation in the CRM industry.

www.sugarcrm.com

Do the Wave

Rasmussen Dishes on Google's New Collaboration Tool

Google is the most-watched company in communications. So when the company recently launched a beta test of a new collaboration tool called Google Wave, tongues started wagging. In a recent interview with INTERNET TELEPHONY, Lars Rasmussen, one of the Google Wave team leads and a software engineering manager at the search and online advertising giant, explained the thinking behind this new technology, how it relates to the open source movement and who's doing what with it.



How did Google Wave come about?

Rasmussen: We started out with the observation that email, which is still the most popular way for people to communicate, is a 40-year-old technology that actually predates both wideband and the Internet, and it's remarkable how successful it's been. But it was really defined in the very early days of computing and primarily just to mimic snail mail.

We looked at how much computers have developed since then. They're obviously a million times more powerful, and networks are a million times more powerful. And we thought 'what if we tried to look at what computers can do today and try not to mimic an existing analog form of communication, but now just come up with what we thought was the best mechanism for communicating on computers.' And that's where Wave came from.

So what exactly is a Wave?

Rasmussen: The basic concept is really quite simple: a Wave is a shared object. Instead of users participating in a Wave – and you can think of a Wave as being half way between a document and a conversation – a Wave is a tree structure of messages. Each participant can add and remove messages; and they can edit existing messages. That's really all there is to it. It sounds very, very simple, but it turns out that there is a very broad range of utility in these Waves.

We have this ridiculously long demo that we did at our developers' conference back in May where we go through and show how this Wave object can be used to have conversations like you would in email, or on a bulletin board. And you can have conversations like you would on an instant messaging system. But because you can edit messages – even each other's messages – you can use it to collaborate on content by editing it, even at the same time. You can use it to put together photo albums. We have the extensibility mechanisms so that third parties can add types of content to it, from games to drawing surfaces. One of our favorite demos came from SAP to build a business processing modeling tool on top of it.

How does Wave compare to other communications, collaboration and unified communications tools?

Rasmussen: With IM and email you have to choose at the start what mode of an action you want, but in a Wave you can switch back and forth in the same conversation based on whether the other person is online or not.

Also, instead of putting together all of the existing protocols so you can use [mediums like email and IM], we invented a new protocol – Wave federal protocol – which lets you do all the different types of communication in the same protocol so you don't have to choose. If you have a system that lets you do email or IM in one space, typically you have a different set of tools based on whether you're doing IM or email. But in Wave, because you can do both modes of interaction within the same tool you, have all of the features available [like spell checkers, for example] both when you're doing synchronous communications like IM, and when you're doing email asynchronous communications.

We find it very difficult to explain in words what Wave is. Not that we can't explain it, but it's not clear what the advantage is until you try it out.

How many folks are beta testing Google Wave, and who are they?

Rasmussen: We've sent out more than a million invitations, and there are several hundred thousand users actively testing it. People are using it productively. People who are using it are people who asked if they could be part of it, and then they nominated friends of theirs to take part in it as well. We've done some surveys and, not surprisingly, a high percentage of these users are techies themselves.

When do you expect to make Google Wave generally available?

Rasmussen: It's a little hard to predict. I think during the first half of next year. We'll keep expanding the numbers that are part of the beta or the preview. Then, hopefully around the middle of the year, we'll be able to let anyone who wants it try it, including businesses.

We're getting a lot of interest from businesses. It is a tool that tends to make people productive both in work and also when you're just planning your personal life. There are actually several hundred businesses that are taking part in the preview.

What types of businesses?

Rasmussen: We have some sizable businesses that are piloting it now.

There are, for example, a couple of large news organizations that want to use Wave both in the production and the distribution of news.

One of the large Australian news organizations has a newsroom where a breaking item might appear on a screen and a couple of journalists will quickly jump right on it and quickly make some phone calls and do some research and put together an article as soon as possible to get it up on their Website. And they don't really have any good tools for this.

They could use Wave to collaborate and write the article. Then the editor could use Wave to make her comments and edits. And then the journalist [could use Wave] to fix it up according to the editor's instructions. Once they're done they could send the result of their work to the Web designers, who could then put it up on the Website. So they're building that now and testing it now, and we think it's pretty exciting.

Tell us more about what SAP is doing around Google Wave.

Rasmussen: SAP has built several prototypes that are very exciting. They used Wave to build a business process modeling tool.

Before to design a business process you'd have one person sit and draw this process and produce a file that could be shared by email. By putting that file inside Wave it immediately becomes collaborative, so many people can sit at their computers and work in real time and work on the same business process. It's a very attractive demo. I never thought I would consider a business process modeling tool to be exciting, but it's really nice. And they're actually out now piloting this with some of their large customers. A couple of banks are trying it out. It's still very early, but we think if this takes off that some really exciting things could come out of it.

How might one employ Google Wave for personal use?

Rasmussen: I wouldn't dream of using what I now consider an old-fashioned tool like email to organize. I have a bunch of family coming down for Christmas from Denmark and coordinating them all coming down and what planes they're on and what they're going to do while they're here and who's going to sleep in what bedroom and all that sort of thing is much, much easier done in Wave.

What is your go-to-market plan for Google Wave?

Rasmussen: Google Wave is similar to Gmail. It's a cloud-based service, and you get it through your Web browser. The Wave of shared objects live in our data center.

We're actively encouraging others to pick it up. It's an open technology, and we've opened up all of the difficult algorithms. We're in the process of even open sourcing our own code so that other organizations can build their own Wave systems. So just like in email, if you and I have email accounts from different providers we can still email with each other. Or, like the telephone, you can phone each other regardless of who your phone company is.

We want Wave to be the same way. We consider that it will only really be successful when there are lots of Wave providers out there, and you can go and pick one based on speed, on price and whatever criteria.

What kind of other companies do you envision becoming Wave providers?

Rasmussen: For example, [Novell](#). They have a product coming up [in 2010] called Pulse, which they describe as an enterprise social network-type product. And they announced, and we're working pretty hard with them, that they will support Wave. So when you're inside [Pulse](#) you can start a Wave inside Pulse using Novell technology.

If I'm a Google user, you can add me to that Wave, and we can Wave together even though you're using Novell's product and I'm using Google's product.

Even though our Wave is within the cloud, other companies could build Waves even inside the firewall.

How does Google plan to monetize Wave?

Rasmussen: We have this great luxury at Google that we tend to worry about making things popular and usable first, and once we hit a certain critical mass of usage then we start thinking about money. Typically that's when you know the right way to monetize anyway. Although with Wave we have a lot of ideas.

The most obvious is ... you know the product Google Apps, it's a bundle of applications – Gmail, Docs and Calendar.

We're going to add Wave to that. So if you've already bought Apps you'll get Wave on top of that. We charge \$50 per user per year for that. We hope that Wave will help drive the sale of Google Apps.

Another obvious thing, although we're probably not going to do it anytime soon, is we're obviously pretty good at targeting ads to content. That's one of the ways that Gmail is being monetized, and we might do the same thing [with Wave].

We don't know how it would work, and it's not something we've designed, it's just an observation we're making. Google makes the lion's share of its revenue from ads, so we have that technology, and it's one of the avenues that we might investigate. **IT**

By: David Yedwab



From UC to Enterprise 2.0

You are likely familiar with the definition of unified communications espoused by my colleagues at UCStrategies and now broadly accepted: “communications integrated to optimize business processes.”

The International Engineering Consortium has put some more meat on the bones by underscoring the importance of both individual and workgroup productivity. According to the IEC: “UC encompasses ... unified messaging, collaboration, and interaction systems; real-time and near real-time communications; and transactional applications. ... Multimedia services include messages of mixed media types such as video, sound clips, and pictures, and include communication via short message services. Collaboration and interaction systems focus on applications such as calendaring, workflow, IVR and other applications that help individuals and workgroups communicate efficiently. ... Transactional and informational systems focus on providing access to m-commerce, e-commerce, voice Web-browsing, weather, stock-information, and other enterprise applications.”

The linkage of UC with collaboration is key, especially in our reset economy, where business leaders need to think of business processes that extend beyond the bounds of the enterprise throughout the supply chain as well as to customers, channel

partners and affiliates. Today it's all about growing top line revenue while ringing costs out of the system so that shareholder value is optimized. Enterprises need to be sensitive to change and effectively and efficiently adaptive to it.

IBM's 2009 Global CIO Study makes just that point. Customer and partner collaboration, business process management, business analytics and, yes, UC were all within the top ten CIO responses to the question: “What kind of visionary plans do you have for enhanced competitiveness?”

By and large, business agility is, today, discussed in terms of the benefits of contextual collaboration, which refers to people-to-people collaboration from within communications-enabled business processes. Contextual collaboration is adaptive in that it brings the right set of collaboration elements to the user, in a manner sensitive to business context. But is application context sufficient for contextual collaboration? What happened to social context? The fact is that our communication and collaboration activities are mediated by a set of social rules. The more intimately we attempt to communicate meaning, the more visual our communication needs to be. **IT**

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

Viewpoint: Voice of the Customer

By Dale Graff

It's Time to Climb out of the Foxholes

According to [Gartner](#), the slump last year in spending on computer hardware, software and services was the worst ever – there was more than a 5 percent decline from 2008. While companies and their IT departments can't be blamed for hunkering down and riding out the recession by slashing projects and putting new initiatives on hold, now is the time to climb out of the foxholes.

Regardless of your predictions for the shape of economic growth in 2010 there are two very good reasons for climbing out of your foxhole:

Innovation did not take a year off in 2009.

In fact, with the strides made in such technical areas as mobility, cloud computing, virtualization, unified communications and social networking – just to name a few – technology is marching on despite economic issues.

Customer satisfaction counts more than ever.

Customers are being very careful with their expenditures and are expecting more for their limited purchasing power. Anything less than excellent service will drive hard-pressed customers to your competition.

What should you do if your organization is frozen with uncertainty? Here are some steps – and most don't require major investment:

- with business stakeholders, identify specific goals and measurable indicators of desired trends in customer satisfaction or operational effectiveness;
- conduct an opportunity assessment – identify where the metrics are falling short of objectives;
- put yourself in your customers' shoes to understand their experiences – identify pain points and fix them;
- plan steps needed to make improvements – if these use new technology, plan a pilot project to demonstrate ROI;
- measure success continuously and adjust plans if necessary to achieve targets.

Industry-leading companies continuously seek to improve operational effectiveness and customer satisfaction regardless of economic conditions. In fact, rough economic times are precisely when organized and focused enterprises can best improve their positions relative to weakened competitors. **IT**

Dale Graff is a senior consultant at Vanguard Communications Corp. (www.vanguard.net), a consulting firm specializing in customer experience, contact center processes, operations and technology.



Mobilize Your PBX

Office Phone. Smartphone. Unified.

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The Smart Desktop

snom Expands Portfolio, Delivering a Wider Variety of Functionality

Anybody in communications, or for that matter in the general populace, can tell you that, in terms of high tech, 2009 was the year of the smartphone and app store. But there also have been many significant advancements of late on the business desktop device front. Many of them have come from snom technology AG, which recently celebrated the 10-year anniversary of its initial VoIP product launch.



INTERNET TELEPHONY recently spoke with Christian Stredicke, founder and CEO of snom, about some of those developments and how, despite 2009 being a down year for the industry, the company continued to move forward – growing in terms of both employees and revenue.

What was the original vision for, and first product from, snom?

Stredicke: In 1999, we started development of VoIP telephones with the introduction of the snom 100 model, which was initially based on the H.323 protocol. The following year, we added SIP, becoming one of the first SIP handsets. At that time SIP was in its infancy, but we saw the commercial opportunity for a broadly interoperable and highly intelligent SIP endpoint device. We saw from the computer industry that interoperability was going to be crucial, so we were really focused on developing VoIP phones that would be compatible with standards-based platforms from different vendors. While most of the big telecoms were probably laughing at our first handset, we made it into a lot of labs and trials, and through this practically everything that talks SIP was tested against snom phones. So we gained some popularity inside the SIP world, in many respects not for the plastic, but for the software.

How has that vision and product portfolio evolved over time?

Stredicke: Over the last 10 years, SIP has done a great job establishing interoperability between vendors. I am glad to see that players like [Skype](#) are also beginning to offer SIP interoperability. This makes SIP more valuable than ever, and SIP trunking has become stable and will continue to replace TDM standards. What ISDN could not achieve – establishing a truly global communications standard from residential homes to the backbone – SIP is completing. On the product side, we took the overall physical [appearance] seriously and came out with something that we feel is quite useful and aesthetically pleasing. We also stayed with the original plan to focus on the handsets. There was

a lot of temptation to come up with all kinds of other things, but today I am glad we did not get lost in too many projects. It is better to know what your core competency is and stick to it.

In the last few months snom has introduced a handful of new products. What do we need to know about them?

Stredicke: Last year, we introduced our 800 series desktop phones – the snom 820 and the snom 870 touch screen phone. My original idea [for] the 820 was to make a phone [that] operated off WLAN – without cable Ethernet – which would make it the first phone that fully picks up the idea of the office with no wires. However, our marketing department received clear signals that Ethernet was still in demand, so finally [we] added fixed line Ethernet as well. The 870 added touch screen, which takes user interaction to the next level.

We also introduced snom OCS, a special firmware for our 3xx and 8xx series phones for use with Microsoft Office Communications Server. We are excited about the opportunities that come with OCS and want to help make OCS a reality on the table top, not only on the desktop. We can offer a smooth migration path from purely voice-oriented IP PBX toward OCS thanks to our multiple registration features of the phones. This is one of those practical concerns that needed to be addressed if real life OCS deployments [were] going to take off.

The snom MeetingPoint conference speaker phone was also introduced in 2009, bringing full support of HD voice/wideband VoIP. Customers that already run on snom phones seem to especially like the fact the MeetingPoint shares most of its software with the other phones, making provisioning and interoperability quite simple.

With the brand new snom PA1 we are testing [the] waters in the paging market. It is essentially a snom 300 in a small metal casing, so it was not too big a deal from a software development point of view. It makes sense to include the paging feature in the general PBX infrastructure, and with VoIP you can have a lot more control about who and where people are being

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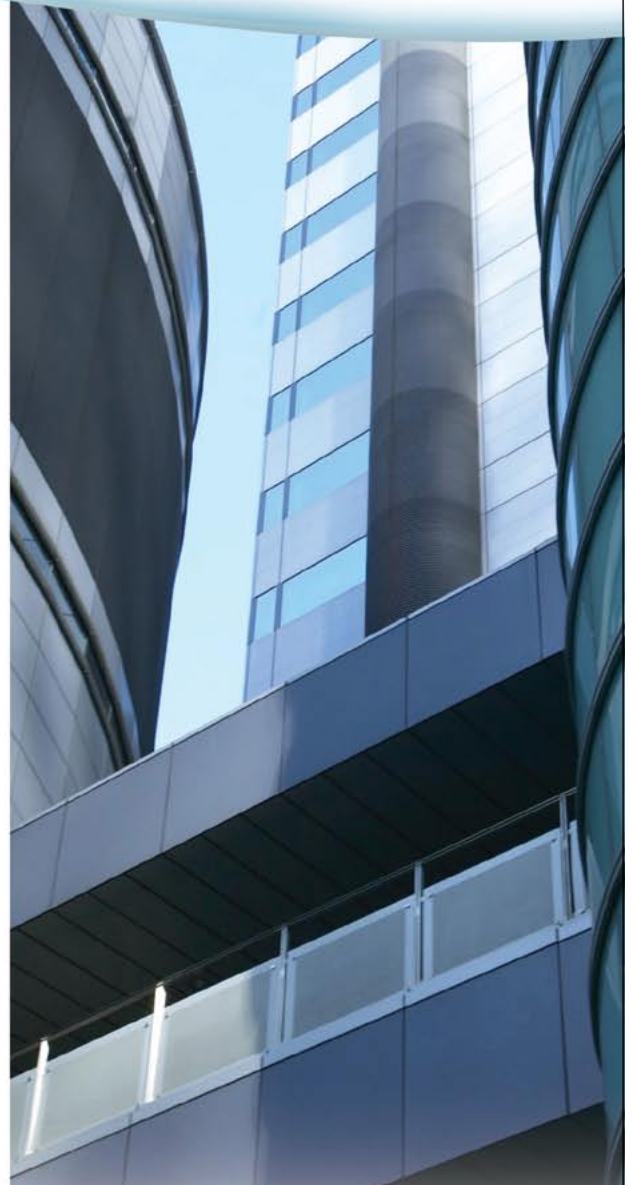
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snom 870



paged.

Combining this with presence information also looks interesting here, moving forward. Imagine that you page in a hospital

only to those rooms where required staff are located at any given moment.

The latest arrival is the snom m9. With the snom m3, we were not sure if the VoIP community would like DECT. But the m3 was a success, and we decided to take it to the next level. The m9 adds TLS and SRTP, photo caller ID, and other missing features like LLDP and IPv6. The DECT forum is very optimistic about products like the m9, and snom should grab a significant piece of that cake.

Why is snom introducing these particular products now?

Stredicke: The market volume is increasing, and with that comes more variety. A few years ago, customers were probably fine using an analog conference phone with an ATA; today they want SIP right to the end device. We understand what it takes to make a SIP endpoint, and now is the time to use that know-how and come out with new SIP devices and expanded features.

How, if at all, do these new snom products parallel trends on the smartphone/mobile front?

Stredicke: Well, customers are wondering why practically all cell phones in the market have color displays and the phone on the table is still black and white. That is a valid question, and we addressed it with the display in the new models 820, 870 and also m9.

The other common denominator is that the pure voice call has become [a] commodity and the value lies in the ap-

You have to offer a lot more than the basic call to make it in the cell phone world, and so is the situation in the SIP desktop phone world.

How does what's happening on the desktop phone front differ from trends around smartphones in mobile?

Stredicke: While the common trend is that applications are important, the difference lies in *what* applications are important. In the cell phone business, many applications are about entertainment. But if we started offering games on our phones our customers would think we had totally gone bananas. An 'application' in the office environment can be as boring as seeing if another extension is talking or to browse the corporate address book. It is about getting the job done, quickly. So the applications on a desktop phone may not be as diverse, but need to be very functional.

Also keep in mind that cell phones are, obviously, very mobile, so you don't have your Internet-connected PC next to you when you use the cell phone. If you look at [Android](#), you can see they care little about busy lamp fields, and they care a lot about browser-based applications like finding the next restaurant around you. We have to deal with applications that are made for devices that don't move, and they are typically in the office.

All of snom's software exists in the firmware on the phones. Why is that meaningful?

Stredicke: We considered running software outside of the phones, but in the end, we are talking about a device that is well-connected with at least 10mbps to the outside world. So it seems logical to run components that take a lot of resources outside of the embedded system, but keep the core on the phone. Especially looking at the price of memory these days, it's easy enough to run the core software locally on the phone. It also makes it easy to switch on the phone and go. I don't think customers would accept a phone that first has to connect to something outside before becoming operational. But we also offer some features off the phone. For example, we offer a component that can run on your PC — essentially to help you with the dialing process. We also offer an XML-based application interface that

can use external servers to render content on the phone's display.



snom MeetingPoint



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snom m3

There's been an intersection of IP PBXs and IT communications. How is snom responding?

Stredicke: The PBX became a piece of software many years ago. We run our PBX on a server that does a lot of other jobs as well; the PBX software occupies only a small part of the server's capacity and puts it in the realm of IT. That intersection comes very naturally if you run the PBX on a standard server.

The same server runs email as well, and it is only logical that the PBX also cooperates with the email server. With all that virtualization, you never know what else is running on that server. As a result, close integration with the PBX becomes more and more important. As the market gets more mature, the VAR is asking for something that can be installed easily, quickly and safely. Those guys who have to install email servers, virus scanners, upgrade operating system and so on, [so] have no time for tricky interoperability problems between the phones and the PBX. They want a solution that just works. Period. This stresses the importance of a close partnership with PBX vendors for us that goes beyond simple basic interoperability.

Cloud-based services are based on the concept of taking equipment off customers' premises and instead putting services and smarts within networks. Meanwhile, snom is focused on bringing more functionality to the desktop. How, if at all, is snom changing the way it thinks about communications in light of the cloud phenomenon?

Stredicke: Bandwidth is increasing, and in a few years we will have so much that it will sound crazy to run something simple like a voice server locally, on a customer premises. However, my biggest concern is QoS, even when there is a lot of bandwidth available. A big difference between TDM and VoIP is that VoIP needs to report if the voice actually made it. If you can't measure QoS, you can't fix it. And you can't charge for it. The endpoint must be involved here; other devices like SBCs have no way to measure the actual packet arrival at the device on the table. Talking about functionality, the difference between running

CPE-based services and services managed by specialists is that the hosted software can be maintained on [a] daily basis. This leaves a lot of room for new applications that you would never care about if you [had] to pay your system administrator to install them. Those applications might be focused on the customer's business, and therefore be mission-critical. Think about the dentist IVR application that informs about [the] latest trends in oral surgery or the shop chain central IVR that links the Web presence with the local outlet phones.

Your company is a proponent of wideband audio, aka HD voice. Why?

Stredicke: Voice is still the most important application on VoIP phones. Anything that improves the overall audio quality of VoIP, and allowing this technology to reach its full potential, is something we heartily endorse. snom's KLARvoice, our wideband technology name, supports various modern codecs as well as the good old G.722 codec and makes the normal audio of a phone conversation a better experience.

How will the rise of HD voice benefit snom?

Stredicke: Value will translate into revenues. Put it this way, it is a competitive feature. Those who don't offer it will lose business. Those who offer it will pick up this business. snom wants to be in the latter group.

Integration and interoperability are always important topics in communications. What is snom's strategy on these fronts?

Stredicke: It is simple. We will continue to lead in this category and develop new generations of SIP firmware for new and existing ecosystems of applications and technology partners.

What is snom's go-to-market strategy?

Stredicke: In the U.S., we work with VARs and resellers and through our network of distributors. We also work with a broad set of IP communications partners — IP PBX, open source PBX, hosted and managed voice and Internet service providers.

What are snom's expectations for 2010?

Stredicke: We expect nothing less than doubling our growth. Maybe a few new competitors will try to enter the VoIP handset market, but they will burn some cash and burn their fingers on the complexity they will face there. Projects that have been postponed in 2009 will be reactivated and then customers will look for products that have shown that they fulfill the requirements. **IT**



snom 820



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An Enterprising Idea

New Survivability Solution Strikes Balance Between Centralized, Distributed Intelligence

The rise of hosted solutions has prompted many businesses and service providers to consider, and sometimes embrace, centralized architectures in which telecommunications-related smarts are moved away from branch office locations and into headquarter hubs.

This kind of setup is attractive because it can result in significant savings in terms of gear and connectivity, and fewer maintenance hassles, for the enterprise. On the other hand, it opens the door to potential reliability and survivability concerns. For example, how can a branch office dial E911 or, for that matter, run its business in the event of a WAN outage? Unless special provisions are made for this kind of scenario, the answer is: It can't.

However, AudioCodes and Avaya have come together to deliver a hybrid solution that offers many of the benefits of centralized architectures, yet puts some smarts out at the branch offices to enable them to retain connectivity even if the wide area network goes dark.

"There's a trend to centralize applications, but that trend has to do something to improve reliability and survivability for remote offices," says Alan Percy, director of market development at AudioCodes.

"On paper pure hosted looks great, but it's academic in a sense that it's not based in the real world," he adds.

As noted above, a completely centralized approach in which all of the network smarts are at the headquarters can lead to a scenario in which an office is left without connectivity. At the other end of the spectrum is the option to put a complete PBX or similar solution at each branch. But that's an expensive proposition, notes Percy.

Value Created for MECCA with the AudioCodes/Avaya Solution

By Paula Bernier

Savings and return on investment

MECCA no longer pays a monthly fee and service charges to a hosted provider. Recurring fees to the hosted provider would easily pay for the new Avaya solution within three years, but the actual ROI time will be much shorter based on savings related to travel and other costs, and increases in staff productivity.

Reliability boost

AudioCodes MP-114 gateways were utilized at each site to provide an important boost to network reliability via the embedded Stand-Alone Survivability feature. SAS allows MECCA to continue operations in situations in which SIP trunks, WAN or Avaya Aura servers are unavailable. The AudioCodes MP-114 gateways with SAS would automatically assume control and continue phone-to-phone dialing and access to the PSTN for each remote site. This architecture reduces risk and improves reliability while also reducing operational costs and telephony access charges.

Scalability and investment security

The Avaya Aura solution for Midsize Enterprises can scale to 2400 users. The MECCA IT team plans to base its future communications needs on SIP technology, and Avaya Aura System Platform virtualization technology will provide a strong stable, reliable, and flexible foundation for them to do so.

Smaller footprint/"green" benefits/ease of management

The MECCA IT team is very pleased with the minimal amount of hardware required to operate its solution. It provides them with the capability to perform moves, adds, and changes easily, usually without travelling. Administrator utilities will enable them to troubleshoot and deploy new applications. One of the greatest benefits over MECCA's first sys-

tem, according to Yelland, is not having to install updates on multiple servers.

Mobility, hoteling and home office capabilities

MECCA's employees travel frequently, covering distances of up to 120 miles between facilities. One of the IT team's next priorities is to enable staff to log into the network at any MECCA location and access messages and other functionality of the main system. They are also preparing to deploy Avaya Extension to Cellular. This feature enables incoming calls to ring at both an office and cell phone simultaneously; and when a call is answered on the cell phone, the user can access virtually all functionality of the communications system. Softphones will also be used for home office work. Receptionists at two main locations will be able to connect easily to staff, no matter where they are located, and users will be able to keep in touch with clients and colleagues at all times, regardless of location, weather conditions, and other circumstances that might otherwise disrupt the delivery of vital human services.

Unified communications capabilities to enhance productivity and client services

Yelland predicts significant enhancements in productivity and client services, delivered through the power of unified communications. Avaya Aura will enable MECCA to leverage applications such as presence, meet-me conferencing, instant messaging, and an integration with Microsoft Office Communicator to enable the delivery of voice messages, e-mail, and faxes through the Exchange server via the PC. MECCA is also looking at deploying applications that will enhance their ability to serve more people more efficiently through distance treatment modalities that may involve conferencing.

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"Either end of the spectrum isn't the right answer," he concludes. "Instead, it takes a balanced approach to get cost savings, functionality and then survivability."

AudioCodes and Avaya have been able to strike that balance by engineering a solution that embeds intelligence into Avaya phones so they can access in an automated way the SIP proxy feature within an AudioCodes' gateway at each branch location. The companies refer to this hybrid architecture as the Survivable Intelligent Edge, or SIE.

Leslie Levy, senior solution manager at Avaya, explains that on a normal day a customer network based on this architecture would employ call control at the Avaya core solution, Aura, to manage SIP-based endpoints. (Aura is a session-based SIP platform introduced last year. It comes bundled with unified messaging applications such as messaging, conferencing and mobility. The company also now is testing the Avaya-AudioCodes solution with Aura Session Manager, its next-generation SIP platform that allows for centralized SIP trunking and large dial plans.) Meanwhile, the AudioCodes gateway at the branch office would enable SIP endpoints to interface with the PSTN as well as with analog station ports for stuff like credit card machines, fax machines and paging applications, she says.

However, if the WAN connection is lost, special firmware embedded in the Avaya phones automatically reregisters those devices to survivability mode via the AudioCodes gateways with Standalone Survivability, or SAS, functionality. That way, those customer phones can continue both making calls to each other and to the external world over a PSTN connection, Levy explains, although in this scenario the phones would have only a subset of the features they typically enjoy when not in survivability mode.



Mediant 1000 with OSN is a modular digital media gateway. The OSN module enables other parties to put their applications within this AudioCodes gateway.

"SAS is essentially a SIP proxy embedded in the gateway," notes Percy of AudioCodes.

This survivability scenario can work in a variety of customer network setups, Levy says, explaining it can take place whether a customer is using distributed trunking, or a mix of distributed and local trunking. She adds that some customers may also elect to route all of their 911 calls to



The MediaPack 114 is among the models within AudioCodes' line of small analog gateways with embedded SIP proxy functionality.

their gateways for transport of those emergency calls over the PSTN, even if the WAN is available.

Later, when the wide area network is reactivated, she explains, the phones automatically detect that and register themselves back to the core, with no manual intervention.

One early customer enjoying the AudioCodes/Avaya solution is MECCA Services out of Des Moines, Iowa. MECCA is a community-based, not-for-profit organization dedicated to the prevention and treatment of substance use conditions, mental health concerns, HIV/AIDS, problem gambling and the enhancement of behavioral health.

MECCA was interested in replacing an existing PBX solution, which it found cumbersome and expensive, with a more cost-efficient, customer- and productivity-friendly hosted solution to serve its 11 offices. The organization ultimately opted for a solution involving Avaya Aura for Midsize Enterprises, and AudioCodes MP-114 and MP-118 SIP gateways to reduce networking costs. It was supplied by NACR, an Avaya Platinum BusinessPartner.

"When we decided to re-develop our own system, we just couldn't face having to utilize so much hardware again and putting in a lot of system maintenance time," says Todd Yelland, IT manager for MECCA. "We wanted to find a solution that would give us a small footprint, a reliable infrastructure, cost efficiencies, and ease of management for our small IT team."

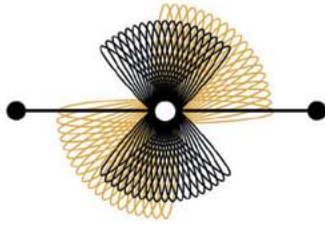
Yelland adds that MECCA was surprised at the number and applications it could run on one server with the Avaya Aura solution. "At the same time," he adds, "we were interested in the option to use SIP trunking because it affords added simplicity and firmly establishes us in what we believe will be the technology of the future."

The savings MECCA will realize in recurring fees alone will pay for the system in three years, but other benefits mean the ROI will be even shorter. Those additional benefits include both the productivity and customer care benefits previously noted as well as the advantages of a small footprint, which translates into lower capex and opex; ease of deployment and management; AudioCodes SIP survivability in remote locations; and centralized SIP trunking and applications for scalability and simplicity. **IT**

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Armed With New Funding, Clearwire Looks to Further Expand 4G in 2010

It's 2010, do you know where your 4G is? If you're Clearwire – or one of the company's more than half million paying subscribers – your 4G is in more than 30 markets, and growing.

Clearwire's 4G network, as of early January, was available in 27 U.S. markets covering more than 30 million people. Those markets include Atlanta and Milledgeville, Ga.; Baltimore; Boise; Chicago; Las Vegas; Philadelphia; Charlotte, Raleigh, and Greensboro, N.C.; Honolulu and Maui, Hawaii; Seattle and Bellingham, Wash.; Portland and Salem Ore.; and Dallas/Ft. Worth, San Antonio, Austin, Abilene, Amarillo, Corpus Christi, Killeen/Temple, Lubbock, Midland/Odessa, Waco and Wichita Falls, Texas. The company also provides pre-WiMAX communications services in 30 markets across the U.S., and a combination of other high-speed Internet and 4G services in five markets in Europe.

Among the markets scheduled to launch this year are Boston; Houston, Texas; New York; and the San Francisco Bay Area.

Verizon Wireless, the first major company expected to market with 4G (in its case, the LTE version), is still currently targeting an initial launch of its 4G network in the late 2010 timeframe.

Meanwhile, Clearwire recently announced it had received \$1.56 billion in new equity and refinanced \$1.4 billion in debt to help fund its continued network expansion in 2010. The company expects to share more details of its build out plans for 2010, and possibly beyond, in its fourth quarter earnings call this month, according to Susan Johnston, Clearwire's vice president of public relations.

The company sells its services via Clear.com, through CLEAR retail stores and authorized dealer locations in CLEAR markets, and at select retail outlets including Best Buy and RadioShack. Clearwire also sells its services wholesale through its investors Bright House, Comcast, Sprint 4G and Time Warner Cable, which each offer, or plan to provide, the WiMAX-based services in their existing markets.

CLEAR, Clearwire's own WiMAX-based 4G service, offers average mobile download speeds of 3mbps to 6mbps with



bursts of more than 10mbps, and upload speeds of up to 1mbps, according to the company.

Mobile and residential plans are available by the day or by the month. Home Internet service plans start at \$25 per month. Mobile Internet starts at \$35 per month, or as low as \$30 per month for those customers that sign-up up online. Day passes are available for \$10.

The company also offers service bundles. Plans with home and mobile, or mobile and mobile Internet start at \$55. And a dual-mode 4G/3G plan sells for \$70 per month with a two-year service agreement.

For residential service, Clearwire offers a Motorola modem, which sells \$69.99 and is available for lease at \$4.99 monthly. Residential customers can add in-home voice service by purchasing a \$15 adapter, and \$25-per-month unlimited local and long-distance service.

Mobile users, meanwhile, use CLEAR's mobile WiMAX-enabled USB modem into their laptop to get online. The Motorola modem is available for \$49.99 or can be leased for \$4.99 per month. A dual-model 4G/3G modem is available for \$5.99 per month for those customers who travel.

Various CLEAR-compatible WiMAX laptops, based on Intel Centrino 2 processor technology, also are now available directly from their manufacturers and through other channels. Dell offers the Latitude E4300, Latitude E6400, Latitude E6400 ATG, Latitude E6500, Precision M2400, Precision M4400, Studio XPS 1640, Studio 1737, Vostro 1720, Vostro 1520



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and Vostro 1220. [Fujitsu](#) sells the LifeBook P8020. Lenovo's ThinkPad line includes the T400, X200, X200s, X301, T500 and W500. Samsung has the X460 notebook, NC10 netbook and Mondri mobile Internet device. And [Toshiba](#) offers the Toshiba Satellite U505.

With the Clear Spot, a \$139.99 portable, battery-powered router, meanwhile, users can create their own Wi-Fi hotspot wherever they are and connect to the mobile WiMAX network with any Wi-Fi device (up to eight of them, in fact) that's compatible with 802.11b/g. **IT**

Down, But Not Out

By Paula Bernier

Clearwire recently made news when, in late 2009, its service went dark for approximately five hours in Boise, Idaho; Las Vegas; Oregon; and Texas. It also had service blips on its networks in Chicago and Seattle.

While the outage was widely reported and made some question the reliability of the company's WiMAX network, the problem was the result of a standard maintenance issue and, in fact, followed on the heels of a similar outage by incumbent T-Mobile.

"During network maintenance in early December, we encountered a software glitch with our Motorola infrastructure that impacted service for CLEAR and MSO customers alike in certain markets," says Susan Johnston, Clearwire's vice

president of public relations. "The issue was resolved after a few hours, and service was restored.

"In Chicago and Seattle, localized equipment issues with an individual site in each market resulted in localized network issues for a short period," she adds.

Clearwire notes that it is working closely with Motorola to make sure they have identified and corrected the issues with the software to avoid this happening again.

"The outage was a few hours in duration and did not impact our ability to activate new devices," Johnston says. "We don't expect that it had a significant effect on our sales operations." **IT**



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Catalyst, SON, Other Efforts Aim to Span the Divide

Science fiction movies frequently depict the future as a world populated with shiny new buildings, communications and transportation systems. In reality, the world is, and will be, much more like the one pictured in the cinematic cult classic “Blade Runner”, in which the old and the new have merged to create exciting, sometimes kludgy, combinations.

That’s the reality because people want to leverage existing investments to whatever extent possible and choose to migrate to new technologies at their own pace. But, given the growing popularity of mobile, IP and Ethernet, and the rise of the App Store, the future is now. As a result, network operators and others in the communications arena are toiling to bridge the gap between legacy and next-generation networks, processes, services and culture.

It’s a tall order, but work is being done in earnest to let the new and the old to work together, all while allowing for faster service creation so those that are inventing what’s next in communications can deliver these experiences over telco networks.

A Catalyst for Change

One interesting development on this front involves two major traditional telecommunications providers, and online retailer and cloud services pioneer Amazon.com, among others.

BT and Qwest are championing an effort, in which Amazon.com is a participant, to create consistent definitions and service catalogs for both traditional telco offerings like voice, video and data connectivity as well as newer Web- and cloud-based services. Also involved in the project are Chinook Hosting, which provides hosted unified communications; Comptel Corp., which sells operational support systems; and Network Cadence, a consulting firm for communications service providers.

The catalog aims to provide functional definitions for all services, denoting how to create and define, fulfill and assure them. These definitions are intended to help both traditional and cloud-based service providers expedite the introduction of new converged services.

The effort is a TeleManagement Forum initiative. It’s the second phase of the Service Model Catalyst and was on display at the forum’s Management World Americas event Dec. 8 through 10 in Orlando, Fla.



Greg Scullard, CTO office director for Comptel, says this Catalyst program got off the ground in May when the companies joined forces to use the service catalog and the product and service assembly (better known as PSA) architecture the TMF already had compiled as the basis for a larger effort aimed at enabling service providers of all stripes to create mashups combining traditional telco and IT services.

The second phase of the project revolves around creating the necessary definitions, catalogs and framework to enable Qwest to launch and support cloud-based services from Amazon.com and BT paired with hosted services from Chinook, and Qwest’s own offers. With those definitions and catalogs in place, Scullard explains, service providers like Qwest can partner and more easily see what others have to offer on a wholesale basis.

“I kind of like to call it Web services on steroids,” he says.

Having these common underlying definitions also means the provider can more easily support those services throughout their lifecycles – whether those services come from their own networks or via wholesale relationships with other providers.

“A service is a service is a service, whether we’re talking about voice and data or cloud-based, [or services] like hosted Exchange or online storage,” Daniel Vacanti, director of technology at Network Cadence tells INTERNET TELEPHONY.

These services all can be cataloged in the same place and thus can be assured in the same way and fulfilled in the same way, he says, adding that telcos with an understanding of that will be the most likely to survive in the “new world order of telecom.”

The Service-Oriented Network

Another industry effort aimed at enabling telcos to introduce new services in Internet time is under way at the Alliance for Telecommunications Industry Solutions.

The service-oriented network, or SON, was envisioned as a way to help telcos expose select network capabilities – such as presence and location, identity and voice services, and even operational and billing support systems -- to Web developers, explains Jim McEachern, manager of application enabler standards at Nortel, and a key contributor to the focus group that led to the ATIS SON effort. That, it is believed, will enable telcos to expedite the delivery of a slate of new revenue-generating retail and wholesale services.

“At a high level, the service-oriented network isn’t a new technology, it’s a new business model,” Qwest Communications CTO Pieter Poll tells INTERNET TELEPHONY, “and it’s occurring because of what the telecom industry has done to provide reliable and affordable transport. Cloud business models require partnerships with application and solution providers, and standards and protocols that connect and make interoperable network clouds. The work around the standards and protocols is ongoing, but progress is being made.”

ATIS officially set sail with the SON effort a year ago this month through the creation of the SON Forum. At that time it presented the SON Assessment and Work Plan. Companies involved included Alcatel-Lucent, AT&T, British Telecom, Cisco, Detecon, Deutsche Telekom, Ericsson, GENBAND, Hewlett Packard, Huawei, JDSU, Juniper, LG, Motorola, Neustar, Nortel, Qwest, RIM, Sprint, TDS Telecom, Tekelec, UTStarcom and Verizon.

The SON Forum’s next meeting is Feb. 9 to Feb. 11 in Texas.

SON builds on the ATIS Convergence effort, which defined the business requirements around continued telco broadband success. It also leverages the IMS architecture, which decouples

the application layer from the network layer, and borrows the concept of reusability from the SOA architecture popular in enterprise networking circles. To the last point, with SON various network resources are exposed so a wide variety of applications and mashups can use and reuse those resources.

But beyond just allowing for network resources to be exposed, the SON initiative aims to help put standards in place on a number of fronts so all this exposure and service creation is simplified from the telco, developer and customer perspectives.

The SON Forum has separated this work into three areas including service delivery creation and enablers; policy and data models; and OSS/BSS and virtualization, explains Andrew White, director of NGN architecture at Qwest.

“These include service enabler characteristics, service catalog, common policy reference model, common data model requirements, reusable OSS components via open API, and network abstraction function and API in the context of virtualization,” says White.

White adds that Qwest is using SON principles in its network today. For example, he says, systems that support the company’s qHome portal, and Verizon Wireless Integrated Mailbox and One Number Service, are access agnostic and are developed in the Qwest Application Framework.

“The next level of benefit from SON comes from a marketplace of compatible technologies,” White adds. “This is likely two to three years away. The standards need to be published and then integrated into supplier development streams. This next level will provide a ‘plug and play’ capability that helps reduce the integration complexity in the services supply chain.

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“The SON work continues to evolve with the goal of making it available to developers as soon as possible,” he continues, noting, “We are sharing our work with other standards organizations such as TM Forum and Open Mobile Alliance.”

The Telco Answer to the App Store

At the same time telcos are participating in such initiatives as the Catalyst and SON work mentioned above, they also are courting application developers with what many consider a response to Apple's App Store.

At the same time telcos are participating in such initiatives as the Catalyst and SON work, they also are courting application developers with what many consider a response to Apple's App Store.

For example, Verizon Wireless in July announced plans to open what it calls an application storefront through which it works with developers.

Brian Higgins, executive director for ecosystem development within Verizon Wireless and a keynote speaker at last month's ITEXPO East in Miami, is responsible for technical support for the developer community within Verizon's application ecosystem.

While there are some parallels between what Apple has done on these fronts and what Verizon Wireless is doing, the wireless service provider has a very different business model, says Higgins. Both companies, he explains, are providing tools and resources to developers to help them build applications on their devices. However, Verizon Wireless offers a greater diversity of devices and operating systems. And because the company has significant network resources at its disposal, he says, it will expose some of those resources – such as location, messaging, presence, and capabilities linked to quality of service -- through APIs so developers can better differentiate their applications in the marketplace. (While this sounds a lot like the SON idea discussed above, Higgins declined to comment on the potential relationship between the two.)

The diversity of endpoints and operating systems supported by Verizon Wireless will mean the company's developer partners will have “many large ponds” for their applications, Higgins continues, and will give the carrier more flexibility. On the other hand, he concedes: “It will be trickier for us to get the scale.”

Higgins also offers a reminder that it will take time to develop business models around new devices, applications and partnerships, and to roll out the new LTE network.

“A lot of the things we're working on now are more about developing concepts, building the products and communicating out the type of things we're thinking about, and less about the 20 things we know we're going to bring to market tomorrow,” he says. “So we're still in the fairly early stages. Bear in mind that we're currently targeting to have the initial launch of the [4G LTE] network in the late 2010 timeframe, and that's just the starting phase.”

The Rise of the Service Broker

When you think about why applications are so quickly developed and introduced on the Internet as opposed to on telco networks, it's because the former's infrastructure is a lot easier to work with, notes Patrick Fitzgerald, senior vice president of global sales and marketing at AppTrigger. Meanwhile, with telco networks, you have multiple variants of SS7 and SIP signaling in the mix, he says.

This mish mash of signaling and protocols has given rise to a new class of equipment called the service broker. Fitzgerald notes that this type of product normalizes the network layer to remove complexity and, thus, allows for the more rapid introduction of new services, which may require the interworking of applications with different SIP variants, or create a need for an [Ericsson](#) switch talk to a Siemens switch, as just two examples.

Fitzgerald, with whom INTERNET TELEPHONY spoke in December, said in the past few months there's been a tremendous amount of activity from telcos relative to service brokers. AT&T issued a service broker request for information in the June/July time frame, he says, and other recent service broker RFIs were issued by Orange as well as VimpleCom of Russia. Meanwhile, Chunghwa Telecom has issued an RFP on this front, he adds.

Fitzgerald says that's a clear signal that service providers are starting to recognize the need for service brokers, which they want to help them leverage current assets while allowing them to plug and play new applications once they get next-generation networks in place. Service brokers, he says, can help them span that divide. **IT**



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Wireless Expenses in the Enterprise: Onward and Upward

It's a well known fact that enterprise-level wireless can be costly. As wireless expenses have climbed to the top of the telecom expense budget, wireless expense management may become an inevitability for enterprises as mobile costs and pricing plans become more challenging to oversee internally.

Even managing wireless invoices can consume valuable time and resources as internal staff struggle to keep up with carrier billing platforms, new price plans, device compatibility and best practices, according to Fernando Oliveira, director of business development of Wireless Analytics.

"Organizations need to implement long-term strategies for not only wireless expense management but also device lifecycle management," he advises. "Organizations need reliable, consistent analysis using Web-based real-time information to enforce usage policies; quickly optimize rate plans; administer mobile assets; and accurately report and allocate spending by cost center."

Deloitte's "2010 Telecommunications Predictions" for the global telecommunications industry, which provides a view of emerging issues that will have an impact on the telecommunications sector in the coming year, forecasts that North American network operators – both wireless and wireline – will move away from "all you can eat" data pricing plans to a billing systems based on not only how much customers use, when they use it and where they use it.

The report says there is a need for more rational pricing in the mobile market, and wireless expense management plans can optimize a company's mobile usage every month.

"The other issue that will crop up this year is tiered pricing and/or pay-as-you-go for data," concurs Oliveira. "This will create absolute chaos within organizations as they wrestle with their increasing wireless expenses. It's clear that organizations will need to proactively monitor the data

usage, which has not been a concern with unlimited data plans of the past."

The data model will resemble the current voice plans that organizations have had a difficult time managing; therefore expense management teams are going to have to deal with yet another issue in the wireless mobility landscape, Oliveira contends.

Perhaps, though the greatest pitfall that makes telecom expense/lifecycle management a challenge for enterprises can be the very essence of change.

"We continually cover throughout the implementation stage that the current processes may need to change," explains Trent McCracken, president of Spectrum. "One of the main differences between an enterprise company and an SMB company is that enterprises have so many levels of authorization, yet typically there isn't executive ownership. In rolling out a TEM/TLM solution to an enterprise, it may require [an organization] to consolidate invoice handling, perhaps redirect invoice approval, and so on. When enterprises aren't open to these discussions or recommendations by the TEM/TLM supplier, the implementation can go off track very quickly."

Devices such as cell phones, PDAs, calling cards and pagers are creating a complicated telecom expense management situation in most companies. However, there is significant potential for companies to save thousands – even millions – of dollars through a telecom expense management plan.

For example, some companies may spend an extra \$1 million per year on wireless devices that are being expensed at three



Spectrum's Trent McCracken

times the corporate rate. Some businesses, it has been discovered, were still paying wireless expenses for hundreds of people that no longer worked for the company, according to officials at Rivermine.

Gartner's Eric Goodness recently blogged: "Mobile device management, provided as a service, has incredible potential from a user and a vendor perspective. The most crystallized value statement I can provide for MDM services is that the services provide centralized application and hardware resource control. The centralized control of mobile devices is affected by remote, or over-the-air, capabilities."

The Rivermine Wireless team has been helping customers save money, time and hassle managing wireless services since 1997. Cost savings programs have been implemented with hundreds of companies including many of the Fortune 500, according to company officials, with free rate plan optimization services and monthly management services with an average return of 31 percent savings.

In addressing wireless and wireline expenses, Mark Logan, president and CEO of Rivermine, told INTERNET TELEPHONY



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The Wireless Analytics dashboard

that the Fairfax, Va.-based company's "unified" approach produces a more streamlined telecom expense management process.

"Since many organizations want us to manage both their wireless and wireline expenses, we've gone beyond other TEM solutions and invested in a unified platform with a singular approach to reporting, inventory and workflow processes that ensures the most current information is always available in one system."

Gaining visibility into and control over a company's wireless spend also provides the ability to select the best corporate wireless rate plans.

“Organizations need to implement long-term strategies for not only wireless expense management but also device lifecycle management.”

- Fernando Oliveira of Wireless Analytics

And, according to Goodness, a company with 1,000 devices is likely paying \$5 to \$10 per device for its TEM services. "A full lifecycle mobile device management solution for that same company is likely to be priced at \$10 to \$20 per user," he writes.

Telesoft, a provider of fixed and mobile TEM software and services, recently published a white paper entitled "Avoid the Top Five Telecom Expense Management Pitfalls," which outlines specific mistakes enterprises should avoid to optimize their telecom spending for a positive impact on the bottom line. The top five pitfalls are: inaccurate telecom inventory; disconnected telecom data and functional groups; labor-intensive telecom invoice processing; manual telecom invoice validation; and out-of-control wireless spend.

"Continually changing inventory, complex billing for a wide range of offerings and baffling contracts with hard to understand amendments makes telecom expense management a major challenge for the enterprise," says Thierry Zerbib, CEO and co-founder of Telesoft.

Not only does telecom expense management bring hard cost savings, it delivers soft dollar savings as well, McCracken explains.

"The hard dollar savings come from proactively managing all telecom costs, as well as re-negotiating current telecom carrier contracts," he says. "The soft dollar costs come from the increased efficiencies of order procurement, asset and expense management, and so on. For example, instead of letting employees order any wireless device, they have an option of 10 smartphones, five standard devices, and three data cards. The support for these devices becomes much more efficient because instead of supporting 200 unique mobile devices, only 18 are now supported. In addition, there is a benefit from the economies of scale with regards to replacement parts, data transferring, and overall management."

Industry leaders say that over the past year, the adoption of TEM programs have slowed a bit, along with all other purchasing decisions, due to the challenges of the economy.

"TEM/TLM companies are still focused on educating companies on the benefits that a comprehensive TEM/TLM solution will bring," McCracken says. "Many companies don't realize that they are over spending \$5,000 per month for users with zero usage, or \$2,500 a month for directory assistance, or \$3,000 per month for multimedia downloads, or \$4,000 a month on unauthorized international calls, etc. TEM companies that can demonstrate these savings opportunities are having a better success rate."

According to Greg McIntyre, president of Tellennium, the hard dollar benefits are quite clear and easy to define.

"Our organization averages 28 percent in credits and savings for our clientele, and 84 percent of it comes from erroneous billing/charges and services not used," he says.

The soft dollar benefits include "dramatic" time savings for both finance and IT/telecom in many areas: finance; telecom invoice processing time; invoice approvals; allocation and payment; imaging, filing, archiving, and storage; IT/telecom; centralized reporting and search availability for all services and equipment; centralized move, add and change tracking; proactive notifications; and location details.

"Other items also include improved Sarbanes-Oxley compliance," McIntyre adds. "Since telecom expense and the associated equipment touch so many aspects in every organization, there are enormous tangible benefits throughout every enterprise." **IT**

The screenshot shows the 'WIRELESS ANALYTICS CLEAN Reporting System' interface. It displays a table of telecom charges with columns for 'Device', 'Service', 'Rate Plan', 'Usage', 'Charges', and 'Comments'. The table lists various services like 'Voice', 'Text', 'Data', and 'Fax' for different devices. The interface includes a search bar and a 'Filter' button. The table is titled 'A different view of the Wireless Analytics dashboard'.

A different view of the Wireless Analytics dashboard



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Are We Alone?

Armed with Fujitsu Switches, SETI Program Aims to Answer the Age-Old Question

If you believe there's intelligent life beyond Earth, you might be interested to learn about the Search for Extraterrestrial Intelligence program at UC Berkeley. And if you're an ET junkie, you may already know about, and maybe even participate in, SETI@home.

The SETI program, explains its director Dan Werthimer, is a worldwide effort to pull data out of the heavens and comb through it, seeking evidence of intelligent life on other planets. The project employs [Fujitsu](#) XG Ethernet switches to transport information collected by telescopes around the world, sending that data to millions of computers for analysis.

"The idea in SETI is that earthlings are sending off a lot of radio and television signals," says Werthimer. "I Love Lucy left the Earth about 50 years ago. So these television signals, even though they're meant to go down to Earth, they go out into the atmosphere and go traveling out in space at the speed of light. I Love Lucy's gone past about 10,000 stars already."

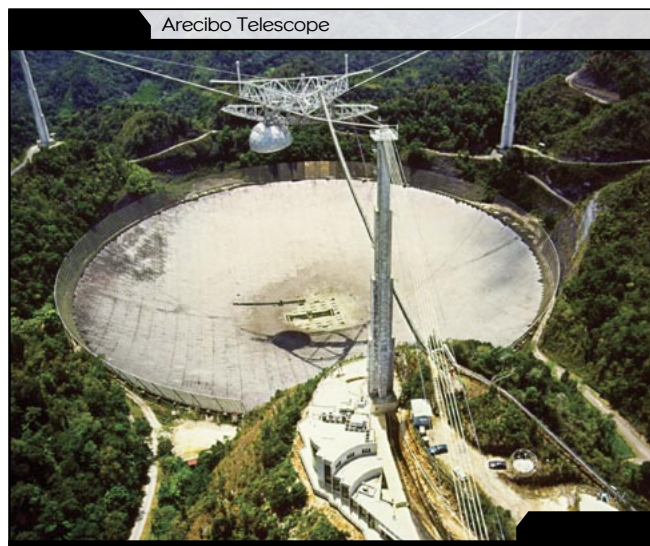
Between TV, FM radio and RADAR signals, earthlings send a lot of signals out into space, he says, so perhaps other civilizations are doing the same thing.

"So we're looking for those signals," Werthimer explains. "The problem is it's a huge amount of data that we need to record and then send out to volunteers. It turns out that to analyze the data we have the biggest supercomputer on the planet, and it's made out of millions of volunteers with their computers at home or at school. We call it the SETI@Home project."

About 8 million people in 226 countries have downloaded the SETI@Home screensaver, which enables them to donate the spare computing cycles on their computers to UC Berkeley for this effort. After downloading the screensaver, volunteers are assigned a part of the sky to work on and when the work is done, they send results back to UC Berkeley for further analysis.

The army of volunteers involved in SETI@Home is diverse, including everybody from school children, teachers, computer scientists and anybody else with an interest in what's out there.

"People have been asking this question for thousands of years: 'Are we alone?'" says Werthimer. "I've been working on it for about 30 years and still haven't bagged any aliens."



The Arecibo telescope, our planet's largest telescope, with which researchers search for extraterrestrials and collect related data for SETI@home using Fujitsu switches

Werthimer says the search for life is a difficult one because researchers don't know where to point their telescopes, what frequencies to look at, or what kind of signals to seek.

"There could be radio signals all over the place coming from civilizations," he says. "Earthlings are very primitive in our searching capabilities right now. I think we'd be lucky to find ET using today's technology. But I'm optimistic in the long run. The technology keeps improving. We're starting to think about 100gigabit switches, and handling more and more data. The capabilities are doubling almost every year."

Indeed, UC Berkeley started its SETI project using Fujitsu's XG700 10gbps switches about four years ago. Today, UC Berkeley has about 10 of Fujitsu's newer 20-port 10gbps Fujitsu switches. And the university's partners have another 15 of those switches, which also are part of the worldwide project.

"Not a big sales value for Fujitsu," says Werthimer. "But it would be cool if Fujitsu switches were the first to discover extraterrestrials. We would share the [Nobel](#) Prize with our colleagues at Fujitsu."



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Such accolades would probably be well deserved, indicates Werthimer, who says UC Berkeley uses every port on all of the Fujitsu switches at the full 10gigabit rate, full duplex.

"No other switch we tested can do that," he says.

"We use [the Fujitsu switches] at the world's largest telescope in Puerto Rico," Werthimer adds. "It's a thousand feet across. It holds 10 billion bowls of Corn Flakes."

Each telescope puts out 100gbps, he continues, and some of the telescopes are arranged in arrays of forty. That adds up to huge data loads that the program needs to transfer, analyze, and use to make images of the sky and look for potential signals from other civilizations.

"That's where the 10gigabit switches are important," he says.

While the effort has yet to meet its primary goal of finding intelligent life beyond Earth, the SETI@Home program has led to some important discoveries, Werthimer says.

It has used the technology described above to make the first images of the black hole at the center of Milky Way galaxy and to search for primordial black holes. The program also has led to the discovery of several new pulsars that provide clues about the early universe and the Big Bang.

Beyond that, Werthimer continues, SETI@Home was a pioneering effort in using volunteers in scientific endeavors that involve super-computing requirements. Now, he says, there are similar peer-to-peer initiatives in which the general public can volunteer their spare computing cycles to discover new types of medicines, for example, or participate in other important global research efforts. **IT**



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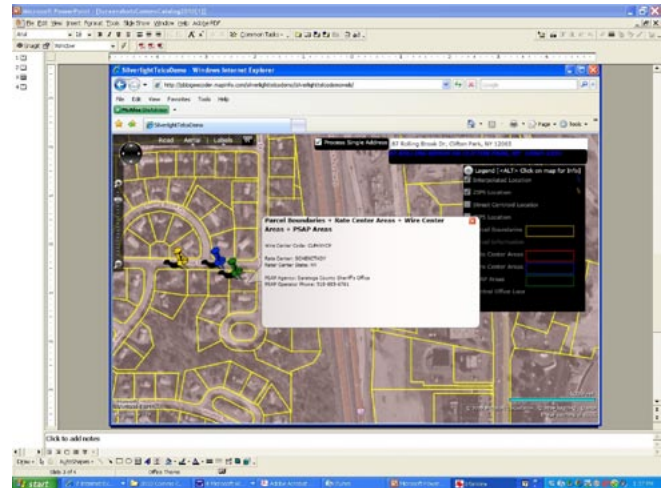
Billing, Location Intelligence & Customer Data Quality Help Pitney Bowes Address Service Provider Needs

Pitney Bowes Business Insight is best known for its expertise in billing. While that remains a core competency for the company, PBBI has a three-pronged strategy that includes billing, location intelligence and customer data quality.

The company is the result of the merger of Group1 Software and MapInfo.

Through Group1, which Pitney Bowes acquired in 2004, it gained the ability to offer tax management for assets such as fiber, which can be complex to address given it often crosses geographic tax boundaries. Group1 also had a thriving data quality practice, says Christopher Cherry, director of communications vertical strategy for PBBI. That now allows PBBI to help large service providers put customer addresses in a standard format in their databases. Standardizing address helps service providers as they do data mining and work to minimize the number of returned customer bills. PBBI also can now offer customer communications management around billing, which involves advising service providers on how to design customer bills to make the best use of space for cross-selling and up-selling opportunities, he says. The company also helps customers enhance the electronic billing experience by enabling them to do things like send SMS reminders to customers when it makes sense.

MapInfo, acquired by Pitney Bowes in 2007, was known for location intelligence and sold data to the carrier community, mostly for network design and management, and then evolved to customer information and marketing.



Access to relevant location information helps determine the serviceability of a given address and phone number

Additionally, Pitney has its traditional expertise in the area of billing. That includes software that lets service providers create bills and dynamically put bill messaging on the bill to particular customers. PBBI also can manage how customers get their bills, be it in print or electronically.

For example, the company offers solutions related to postal discounts, and track and trace on mail. To the latter point, when a bill is delivered, the post office scans the code on the bill; the PBBI solution can enable the service provider in turn to be alerted that bill has been delivered.

Benefits of MapXtreme MapInfo v7.0

By Paula Bernier

Enhanced Data Access

Developers can extend data access to any data source. By accessing data where it lives and leveraging the most up-to-date data sources, developers can enable more detailed location-based analysis. MapInfo MapXtreme v7.0 also supports Microsoft SQL Server 2008 Spatial Data.

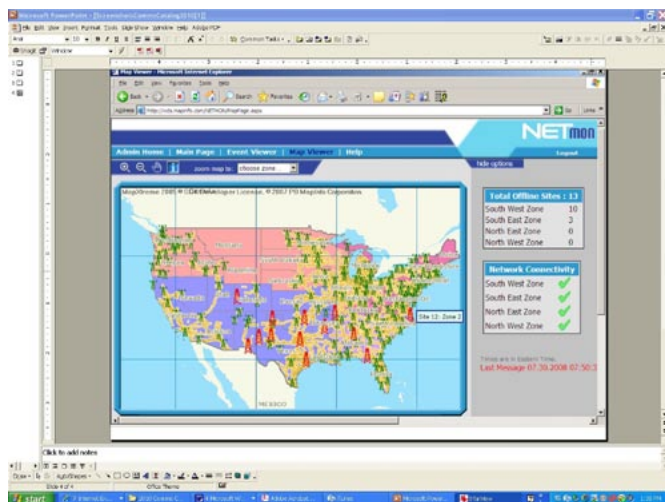
Greater Flexibility and Ease of Use

Features such as a new API for the rendering of tiles, an exten-

sible workspace manager and a localization kit provide greater flexibility and increased customization. With localization, developers can now easily customize their location intelligence applications in multiple languages.

Increased Interoperability

MapInfo MapXtreme v7.0 supports Bing and Google Maps, providing the ability to display and analyze enterprise geographic data in widely used Web mapping services. **IT**



Communications companies use real-time network monitoring services to identify network issues quickly and easily.

"It gives them greater visibility into their cash flow, and also credit and collection," says Cherry.

The company's \$600 million in software revenues are today split evenly among the billing, location intelligence and customer data quality efforts. The global business targets tier 1 and large tier 2 customers in the wireline, wireless and cable TV arenas.

Cherry says Verizon uses PBBI's taxation solution to ensure its assigns the correct tax jurisdiction to its customers.

Meanwhile, Orange uses solutions from Pitney Bowes Business Insight to help it identify where in the U.K. it should roll out 3G and 4G. What PBBI offers in this scenario is data that identifies customers that can offer Orange the best revenue and sales prospects.

PBBI is able to offer this kind of guidance because it pulls and analyzes data from a variety of sources, including but not limited to the U.S. Census and Telcordia's LERG. (The LERG, or local exchange routing guide, is the routing table for the North American telephone network. The LERG also includes the list of local access transport areas, or LATAs, and operating company numbers, which are commonly used to define interconnect rates between carriers.) PBBI takes data from the LERG and matches it with geographic information to enable service providers to do things such as match a customer address to its serving wire center for pre-provisioning, as just one example.

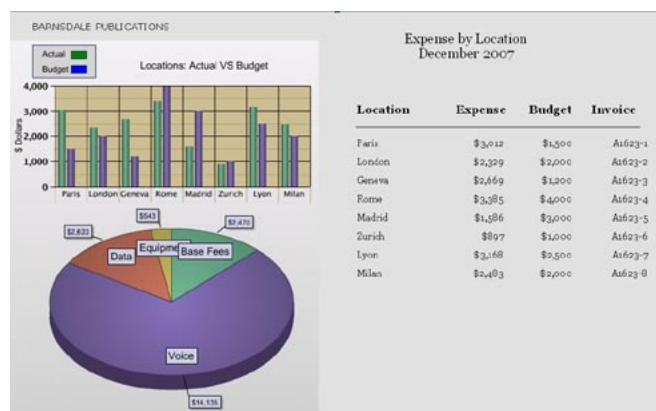
Another prominent wireless operator, Sprint, uses Pitney's technology to show its network coverage. The carrier has made that

information on its Website, says Cherry. Current and potential customers can visit the Sprint Website, input their addresses and see how strong the Sprint signal is in various geographies.

Bell Canada, meanwhile, uses PBBI's MapExtreme solution to monitor its cellular network towers, Cherry says. A red, yellow, green coding enables technicians at the company to see quickly and easily if a tower is out of service, requires maintenance, or is operating as expected.

Pitney Bowes Business Insight at SUPERCOMM in October announced MapInfo MapXtreme v7.0, the newest version of the software development kit for integrating location intelligence with existing business systems. It can be used to help service providers better manage inventory, allocate resources and market to customers. Applications created with the kit can be deployed on the Web and the desktop, enabling organizations to deliver and share location intelligence analysis across their enterprise.

"Organizations today have access to a wealth of location-based data that can be used to identify new business opportunities and trends, deliver services to citizens, manage infrastructure and communicate effectively with customers and partners," says Jon Winslow, global portfolio director of location intelligence at Pitney Bowes Business Insight. "MapInfo MapXtreme v7.0 enables developers to incorporate location intelligence throughout their organization, helping drive down operational costs and improve cross-department decisions that impact business growth."



Flexible online account management helps business customers closely monitor their communications expenses by location to help stay on budget.

As PBBI looks forward, it is looking to offer some of its software "by the click" via a software-as-a-service offer, Cherry tells INTERNET TELEPHONY. But he was not ready to disclose details around this effort as of this issue's deadline in mid-January. **IT**

2009 INTERNET TELEPHONY Product of the Year Awards

With another year behind us, it's time once again to highlight the many products that have contributed not only to the growth of the IP communications market, but have helped countless businesses continue to thrive in a year overshadowed by a global recession.

The range of products, applications, and services among this year's INTERNET TELEPHONY Product of the Year winners embody the very nature of IP networking and the innovation it has spurred. Some have evolved from their PSTN brethren, while others represent a new breed of communications technology, made possible by the convergence of voice and data packets on converged networks, both fixed and mobile.

As a whole, this list of winners also represents the growing breadth of coverage readers have come to expect in not only INTERNET TELEPHONY, but on TMCnet and at ITEXPO as well. Regardless of your line of business, whether you are a carrier, a consumer-facing contact center, a distribution partner, a small business owner, or a telephony developer, among these Product of the Year winners is a selection of products that have been developed to enhance your ability to deliver quality to your customers, leveraging IP communications, from Ethernet



switches to IP PBXs, from surveillance cameras to hosted VoIP solutions, from test suites to IP phones, and much more.

The editorial team of INTERNET TELEPHONY congratulates this year's winners, a worthy starting point for finding the very best products to help your business remain competitive in today's market. But please, do not rely on this list alone. Be sure to refer back to the INTERNET TELEPHONY Buyer's Guide in the December issue (also available online at TMCnet.com), and do your due diligence before making a purchasing decision. **IT**

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8x8 Virtual Meeting

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Aastra Hi-Q Audio Technology

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Aricent

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Avaya

Avaya Aura

Avotus Corp.

Avotus Intelligent Communications Management Usage Management Software (ICM UM 7.3)

Brekeke Software

Brekeke SIP Server Advanced Edition

Callfinity Inc.

ContextIP 4.0

Cbeyond

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Cedar Point Communications

SafariFusion

ClearOne

CHAT 160-Skype Certified group speakerphone

Cypress Communications

C4 IP

Dalcon Communication Systems

DCM-Remote Alert Monitor

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Ensim Corp. Ensim Unify Service Provider Edition	Ingate Systems Ingate SIParator with software version 4.8.1	Narus NarusInsight
Envision Telephony Envision Centricity	InsideSales.com Reach for Salesforce	NBS NBS V.o.I.C.E.
Epygi Technologies QuadroM32x	Interact Incorporated SPOT VoiceXML/CCXML based Interpreter Set	NEI E-2710
Ericsson Converged Packet Gateway	Ipcelerate Webur	NET VX Series with Extended UC features
Evolve IP OSSmosis	IPitomy Communications IPitomy IP PBX	New Global Telecom (in conjunction with Cisco) NGT Hosted Digital Voice service paired with Cisco SPA 500 Series IP Phones
F5 Networks BIG-IP v10.1	ISI Telemanagement Solutions Infotel Select v.8.0 - Tandem Call Matching	Nextiva Nextiva Connect 360
FacetCorp FacetCorp	IXIA IxLoad Voice	Nextiva FAX Nextiva vFAX
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FeedHenry FeedHenry's Personal Services Portal (PSP)	JoiPhone JoiPhone DSL Bundle	Nortel Nortel Software Communication System
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Fonality Fonality Call Center Edition w/HUD Queues	M5 Networks M5 BAM	Nortel Nortel CVAS Carrier VoIP Hosted Business solution
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Three Screens and Beyond: Getting the Most Out of Your Content

By Erik Linask

When people talk about converged communications, a term popularized by the proliferation of IP networking, they most commonly are referring to the ability to deliver voice, video and data over the same networks. And when you add the term “unified communications,” you then incorporate multiple devices – fixed and mobile – into that converged scenario, where users have access to communications and other network resources from those various devices, increasing business productivity significantly.

But, when you consider the consumer market, particularly in North America, there remains a high degree of fragmentation between devices and service or content. When I spoke to Bobby Cha, managing director of business development at Inbrics, he explained that North American consumers interact with their networks, resources, and content on a device-to-device basis. In other words, most have a cell phone, a television, and a laptop or PC, and when they need to do something, they go to one of those devices, depending on the particular activity.

What Cha says Inbrics is hoping to drive is a change in consumer habits and in the way they interact with their technology, such that the focal point becomes the content and not the device or access technology.

Certainly, we have seen a limited amount of movement in this regard, with devices like Slingbox allowing users to stream their home television programming to their laptops and smartphones. But what Inbrics, with its SoIP (Service over IP) device hopes to achieve is a sharing of all IP-delivered content and services on all of devices in the home.

“Our SoIP device acts as a control panel in the home, harnessing the capabilities of all the devices,” he says. “For instance, you can watch a television program on the TV set, and then use our device to push it to a cell phone or laptop. Or you can download content onto the SoIP device and then move it to any of your other devices.”

The idea is really to eliminate traditional barriers between devices in the home, allowing users to interact with their content and services, rather than with their devices. What users can do on one device, they should easily be able to do on all of them.

Inbrics has typically relied on WiFi to enable connectivity between devices, but it recently announced a new Android-based smartphone, which also incorporates 3G and WiMAX

capabilities, effectively removing any geographic constraints imposed by WiFi-only devices.

The natural fit would seem to be with the carrier market – and Cha says Inbrics has had conversations with a number of U.S. providers. But, knowing the mindset of the U.S. carriers and content providers, one has to wonder about potential limitations they would try to impose on such multi-device capabilities, not to mention the penchant for exclusivity among wireless carriers and what impact that might have on Inbrics’ ability to penetrate the market.

Cha also says that, surprisingly, Inbrics has been approached by a number of consumer brands that are looking to penetrate U.S. households in ways other than traditional marketing strategies. For them, the ability to push content and advertising directly into the home is an appealing proposition.

For instance, imagine a Facebook-branded SoIP Homestation, which would provide instant access to its application on any home device. Or, consider a security system that can automatically stream surveillance footage onto not only devices in the home, but the mobile devices anywhere. Or perhaps digital photo stores or music catalogs that can easily be accessed through connected devices anywhere.

These concepts aren’t new – and many are available through Web-based services worldwide. What is new, however, is the concept of connecting all the different devices on a home network (or via cellular carrier) to make it simpler, easier and more convenient – and to enable all types of content via a single SoIP Homestation.

Certainly, we’re seeing the development of more advanced multi-use devices, like the Apple iPad, but there will always be a need for multiple devices (after all, is an iPad really the optimal screen for watching the Super Bowl?). On the other hand, if you happen to be away from home on Super Bowl Sunday, wouldn’t it be great to be able to not only watch the game, but to also interact with your friends – lets add a video camera to the mix so you can talk about the last play while watching the replays.

Is the consumer market ready for this kind of freedom? Many markets are, including Inbrics’ home market Korea, where broadband penetration is extremely high, as is the demand for content, and users are looking for devices that are capable of more than most American consumers can imagine. But, Cha believes the U.S. market will come around in 18 to 24 months, and Inbrics plans to begin rolling out its products here by the 2010 holiday season. **IT**

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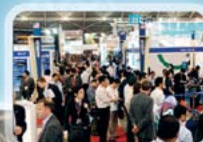
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