



# INTERNET TELEPHONY®

VOLUME 11/NUMBER 9

SEPTEMBER 2008

The IP Communications Authority Since 1998™

## Interactive Intelligence

Delivers 12 Vital

IP Telephony Applications

That will make a difference in your business

*See Inside Cover Flap*

IP Contact Centers Take off Pg. 60



Contact Center



Enterprise IP Telephony



Messaging



**Review:** Vonexus EIC 3.0  
from Interactive  
Intelligence Pg. 70

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**First-Ever IPTV**  
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# Application Value



Voice over IP for the sake of voice over IP doesn't accomplish much. Sure, there's the single network and long-term cost savings, but the real value is in the applications that you're able to deploy over that IP network. But don't jump into action quite yet. Done wrong, all those applications can mean an integration nightmare and more administrative interfaces than you'd ever want to learn.

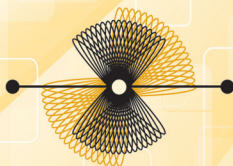
How about all those applications delivered on a single, scalable communications platform, all pre-integrated, all using a single administrative interface, and all licensable through a go-as-you-grow model so you deploy them when you're ready.

- Enterprise-wide presence management
- Multi-media routing and queuing
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- Workforce management
- Email auto response
- Customer feedback management

So cut through all the jabber about unified communications. Look for a platform that will deliver the IP communications applications you need, as well as provide full integration with the other technologies and products you already have.

## Go Beyond Just IP Telephony.

For information about the Interaction Center Platform® from Interactive Intelligence, see us at INTERNET TELEPHONY® Conference & EXPO West 2008, September 9-12, **booth #514** or visit [www.inin.com](http://www.inin.com).



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# INTERNET TELEPHONY®

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VOLUME 11/NUMBER 9 SEPTEMBER 2008

The IP Communications Authority Since 1998™

## Amazing **allworx** CONQUERS Small Businesses



Jeff Szczepanski  
CTO & Co-Founder

IP Contact Centers Take off Pg. 60



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*Finally*

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#### About INTERNET TELEPHONY®

Internet telephony is revolutionizing telecommunications through the convergence of voice, video, fax, and data, creating unprecedented opportunities for resellers, developers, and service providers alike. **INTERNET TELEPHONY®** focuses on providing readers with the information necessary to learn about and purchase the equipment, software, and services necessary to take advantage of this technology. **INTERNET TELEPHONY®** readers include resellers, developers, MIS/networking departments, telecom departments, datacom departments, telcos/LECs, wireless/PCS providers, ISPs, and cable companies.



# See you at ITEXPO West 2008 in LA!

**L**ike some great migrating horde of ancient times, the IP Communications industry will descend upon the immense Los Angeles Convention Center during September 16-18, 2008, flocking to TMC's (News - Alert) ITEXPO (News - Alert) West 2008.

Since 1999, INTERNET TELEPHONY Conference & EXPO (ITEXPO) has claimed the title of the IP Communications industry's Single Greatest Event. It attracts everyone — representatives from enterprises, SMBs, nonprofit organizations and government agencies searching for state-of-the-art, feature-laden and cost-effective communications systems — not to mention the many equipment vendors, software vendors, resellers and service providers that harbor major ambitions in the IP space. At ITEXPO, thousands of attendees spend days canvassing the exhibit hall housing the booths of hundreds of vendors and the latest, innovative products and services.

But beyond its traditional function as an expo, ITEXPO offers all comers an extensive educational program consisting of a whole slew commercial-free conference tracks. The educational components of our conference have become steadily more popular over time, since the communications market continues to become more sophisticated and an increasing number of somewhat bewildered people are struggling to grasp what the benefits are of all of this.

Whereas in the past attendees learned how to select and deploy relatively simple IP-based voice, video and fax solutions, today's ITEXPO can reveal and educate interested parties about the latest in Unified Communications (UC), Fixed-Mobile Convergence (News - Alert) (FMC), Telecom Expense Management (TEM), Communications Enhanced/Enabled Business Processes (CEPB), security, WiMAX, hosted/managed solutions, disaster preparedness, open source, the Session Initiation Protocol (SIP), IPTV (News - Alert) and the IP-based Multimedia Subsystem (IMS).

And since ITEXPO is the great "gathering place" for both buyers and sellers in this industry, it's a great place to network with key players and your peers — forging relationships, closing deals, and otherwise "schmoozing" with the widest possible cross-section of IP communications people who have trekked in from all over the world. It's been that way from the beginning, despite an assortment of economic "hiccups" that have appeared on the global stage.

For example, after the tech/telecom/Internet bubble popped in 2001, TMC's ITEXPOs have continued their success unabated while many of TMC's competitors were devastated to the point of collapse. That alone stands as a tribute to TMC, a savvy media company that has spent over 30 years not just producing expos and conferences, but also in publishing the industry's renowned, flagship magazines — *Internet Telephony* (News - Alert), *IMS Magazine*, *Customer Inter@ctions Solutions*, and *Unified Communications Magazine*, staffed by the most knowledgeable and accomplished editorial team that has ever covered the telecom industry.

TMC's massive presence on the web, in print magazines and in the expo/conference field give it a tremendous edge in today's dynamic market.

And while you're at the show, don't just hang around the exhibit hall — attend the keynote speeches. ITEXPO's unique blend of knowledgeable and experienced industry luminaries will both impress you and help you make informed communications buying decisions.

So (with a tip of the hat to Ringling Bros.) come to the Greatest IP Communications Show on Earth. It's a fantastic distillation of top executives and influential visionaries from equipment makers, software developers, resellers and service providers. Come share your thoughts and investigate the many opportunities available in the IP Communications space.

And if you see somebody in a Brooks Brothers suit running around like crazy with a camera, laptop, a list of booths, a bottle of Pepsi and a digital voice recorder, that'll be Yours Truly. **IT**

*Richard Grigonis (News - Alert) is Executive Editor of TMC's IP Communications Group.*



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## Application Session Controllers and Why You Need Them

As service providers look to upgrade their infrastructure and build new networks, they have many decisions to make. One of these has to do with the revenue producing applications which currently exist on their network. Do they all need to be rewritten to work with the new network?

In many cases they do but if one company has its way this will no longer be the case. AppTrigger ([www.apptrigger.com](http://www.apptrigger.com)) is looking to bring old applications into the new world of next-generation networks while simultaneously allowing many of the next-gen services to be available to subscribers on legacy networks.

The company even rolled out something called the Application Session Controller Advantage Program in order to provide a construct for evaluating current application business models as service providers examine the risks and rewards of advanced network migration strategies.

Of course this begs the question: what is an Application Session Controller or ASC ([News - Alert](#))? To answer this question I travelled to Richardson, Texas where the company is based to learn more.

While there I spoke with Tamyé Oshman, Director of Marketing; Wally Beck, Senior Director of Marketing and Patrick Fitzgerald ([News - Alert](#)), Senior Vice President Sales and Marketing. In my meeting on a scorching Texas day I got to learn about how the company evolved from a media gateway company into what they are today.

Moreover, I learned about how the company has partnered with Unisys and now Microsoft ([News - Alert](#)) and their focus on North America, EMEA, APAC and Latin America.

But I promised to tell you about the ASC – it is a stateful call machine, a pre-IMS network element which sits between the application layer and the core network to provide and manage connectivity as the network continues to evolve. The ASC combines media, signaling, call control, and a family of APIs for multi-network, converged application deployments. By isolating application servers from the network via a programmable network abstraction engine, application-specific call control functions can be supplied independently of each network. For example, a VPN running on an IN network could be inserted into an IMS network without having to rewrite the application. The ASC recognizes that everything can't be implemented in a strict, "pure" 3GPP IMS architecture because service providers have a legacy network infrastructure and they can't dispose of that overnight. Existing applications have to be introduced "whole" to the IMS (and other) networks, and that's exactly what the ASC can do.

AppTrigger worked with Unisys to develop the Unisys Application Session Controller, an open and modular network layer environment for the launch and delivery of services over IP, circuit switched, IMS and hybrid networks. It supports communication and value-add services from Unisys and third parties, and is of course IMS-ready.

I am told that the ASC platform supports all the APIs (a bold statement but check with the company for details) and some media such as record, playback and SMS.

So should service providers work with a company like AppTrigger? It depends really. In a world which is getting more and more complicated for carriers, do you need to keep your applications more organized and maximize the revenue of each of them by allowing users on all networks to use them? Of course, the decision is up to you but it seems logical that going forward, ASCs will become common network elements in many service provider networks. Once this happens, we should hopefully see more revenue potential for carriers and more opportunities to use disparate services regardless of the network they are on. **IT**

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## Is your contact center solution fine tuned for success?

### Our expertise

Contact centers are all about people, processes and technology – and Aculab provides essential enabling technologies to help you succeed with your intelligent customer contact solutions. Reliable, scalable products underpin virtual, hosted and networked operations across present and next generation infrastructures. Our market proven media processing resources and connection options are used worldwide in mission-critical, inbound and outbound customer interaction centers, helping to transform the way businesses communicate.

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When you invest in a partnership with Aculab, you get more than the highest quality media processing technology that has been optimized for your sector. Whether it's for contact centers, conferencing, fax technologies or military applications, you get the reassurance of a stable and proactive partner, offering continued support and enabling you to adapt to change before it happens.

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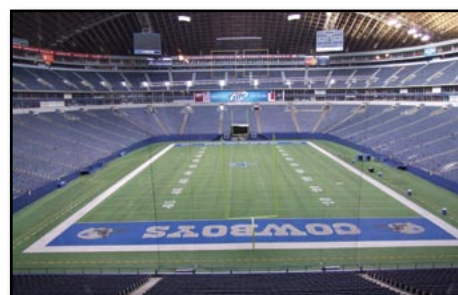
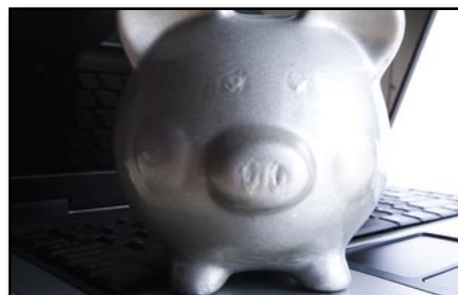
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## What's On TMCnet Right Now?

To stay current and to keep up-to-date with all that's happening in the fast-paced world of IP telephony, just point your browser to [www.tmcnet.com](http://www.tmcnet.com) for all the latest news and analysis. With more than 36 million page views per month, translating into more than 3.1 million unique visitors, TMCnet.com is where you need to be if you want to know what's happening in the world of VoIP.



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

### Comcast's Proposed "Fair Share" Plan Affects Heavy Internet Users

America's largest cable services provider, Comcast Corporation, has revealed a new plan to regulate its Web traffic. Motivated by regulatory demands, Comcast will slow down Internet service to its heaviest users during periods of congestion. Mitch Bowling, Comcast's senior vice president and general manager of online services, explained that while the top Internet speeds for targeted customers will be reduced for 10-20 minutes, service to other users will continue flowing.

[www.tmcnet.com/2354.1](http://www.tmcnet.com/2354.1)

### No 'Comfort Zone' for Mobile Device Vendors in Future

Mobile devices are the biggest-selling consumer electronics products in the world, with more than one billion shipping every year. However, the market is in a state of rapid flux. Divergent forces are shaping the developed and emerging markets for these devices. Developed markets in particular are typically highly saturated, highly competitive and highly segmented, with strong product innovation. The advent of mobile broadband access, the drive to maximize data revenue, the desire to push smartphone operating systems down into mid-tier handsets, and rapid innovations in user interfaces will all make the mobile devices of 2010 radically to those of today.

[www.tmcnet.com/2355.1](http://www.tmcnet.com/2355.1)

### Aumtech, with Help from Microsoft, Breaks Through Speech Rec Cost Barrier

Automated speech recognition (ASR) or speech rec, where people converse with computers, has long been a 'tomorrow' technology. ASR's promise lies in its ability to provide near-contact center agent-quality customer care for basic interactions like obtaining flight information and order taking at a fraction of the cost: 50 cents per transaction compared with \$5-\$9 with live agents. Aumtech, which makes IVR platforms, has, under contract and in collaboration with Microsoft, broken through the cost barrier by developing and recently successfully deploying a unique software interface, written to industry standards, linking Microsoft's ASR tools to the IVRs.

[www.tmcnet.com/2356.1](http://www.tmcnet.com/2356.1)

### Platform Play Updates — Solid Proof Points for Service Providers

Ribbit announced they were being acquired by BT on July 29. They are a great example of a Web 2.0 platform play that service providers can build voice applications off of. I've noted previously that they are not an end-to-end provider in the way that Jajah is, but do provide a very good point solution for operators who need to integrate Web and voice services in a hurry. For anyone trying to become a platform play, this deal is a great validation point, and to think that BT paid \$105 million is only going to accelerate the rush to get into the game. The VoIP market is full of companies far more established than Ribbit who were acquired for a fraction of this amount, and it's clear that BT is buying more into the promise than the reality. I see parallels here to eBay's acquisition of Skype, but in this case, Ribbit has little in the way of customers or revenues.

[www.tmcnet.com/2357.1](http://www.tmcnet.com/2357.1)

### TMC's Whitepapers of the Month

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

### SIP Pocket Guide: Exclusive Reference Guide for Session Initiation Protocol (SIP) Professionals

The SIP Pocket Guide is the exclusive reference guide for Session Initiation Protocol (SIP) Professionals, and can be used by those professionals to quickly identify information relevant to the interoperability of SIP. SIP is the Internet Engineering Task Force (IETF) protocol for VoIP and other text and multimedia sessions, like instant messaging, video, online games and other services.

[www.tmcnet.com/2359.1](http://www.tmcnet.com/2359.1)

### ENUM – Call Routing in an All IP World

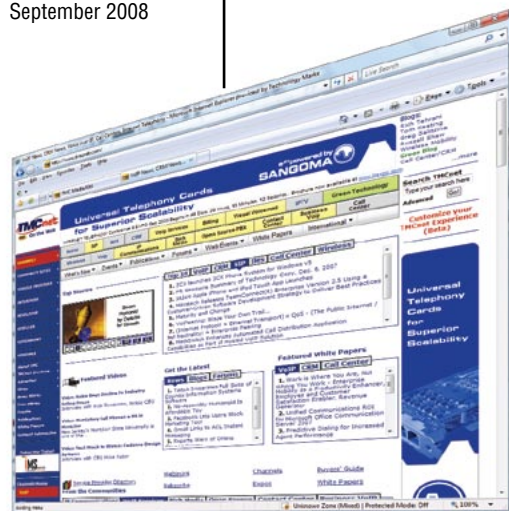
This paper provides an overview of industry trends and issues involving ENUM. Additionally, this document proposes the concept of a subscriber routing database (SRdB), to house all subscriber routing information - thus allowing operators to create a more efficient network.

[www.tmcnet.com/2250.1](http://www.tmcnet.com/2250.1)

### Mobile Unified Communications: Delivering on the Promise of FMC Seamless Mobility

This whitepaper explores the value of merging unified communications (UC) with fixed mobile convergence (FMC) and examines various deployment scenarios. The paper subsequently highlights the need for a universal mobile unified communications client for mobile terminals such as single-mode Wi-Fi phones and dual-mode Wi-Fi/Cellular phones. Finally an overview of the key features and architecture of the mCUE universal mobile UC client from D2 Technologies is reviewed.

[www.tmcnet.com/2360.1](http://www.tmcnet.com/2360.1)



## This Month's Featured Channels

### Video Conferencing



<http://www.tmcnet.com/channels/video-conferencing/>

### SIP Trunking



<http://www.tmcnet.com/channels/sip-trunking/>

### Performance Management



<http://www.tmcnet.com/channels/performance-management/>



# AMTELCO

## XDS Technology

### Why AMTELCO XDS?

In 1976, with the FCC certification program, AMTELCO was formed to provide modern, computer-based messaging equipment to the telephone answering service industry.

The first XDS boards were sold in 1980, and are now used by developers around the world. Today, AMTELCO markets a wide variety of innovative XDS boards in H.100 PCI and H.110 CompactPCI formats. As new technologies emerge, AMTELCO XDS will design new products that allow developers to take advantage of the latest technology.

### Mission Statement

AMTELCO's XDS group is dedicated to providing developers around the world with high-density products that are easy to use, easy to implement, highly reliable, and feature full service and support.

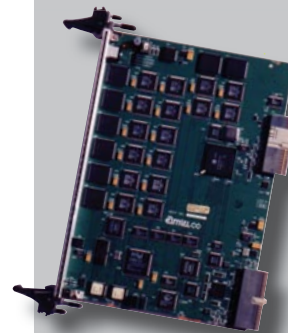
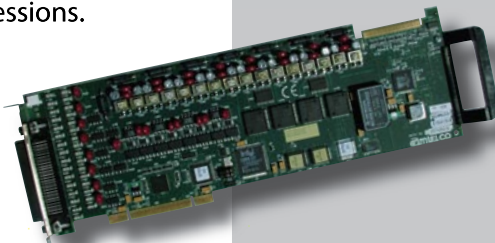
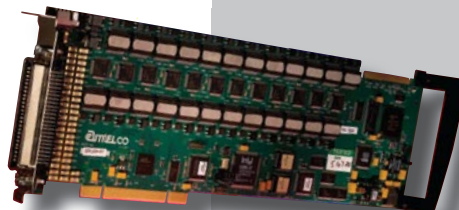
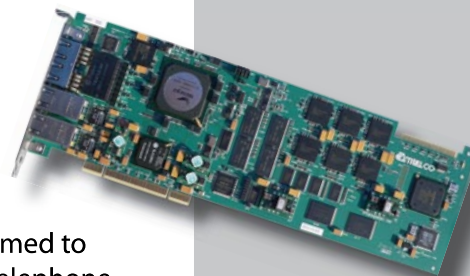
### Latest Innovations

Two of the recent AMTELCO XDS Innovations include:

- **Asterisk®** – AMTELCO XDS H.100 PCI Loop Start, Station, E&M and T1/E1 boards support the open source Asterisk interface. Provides high density and excellent reliability.
- **XDS VoIP Boards** – Designed to be a cost-effective solution for developers, the VoIP board is a TDM to VoIP Ethernet gateway. The board will allow from 96 to 600 concurrent VoIP sessions.

### AMTELCO XDS Products:

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By: Brough Turner



## Affordable Backhaul

The mobile Internet is coming. Today's 3G radio technology delivers more than 1 Mbps per user and, in competitive markets like the UK (five 3G operators), open access to the Internet is becoming quite affordable. For operators

however, a major bottleneck is backhauling the traffic from cell towers to the core network. This is true for traditional cellular mobile operators and for new wireless ISPs using WiFi ([News - Alert](#)) or WiMAX.

Until very recently, voice telephony was the bulk of the traffic. Given the compression already in use over the air, you can fit a lot of voice calls on a T1 or E1 link, so most cell sites were connected via a single T1/E1 link. In fact, in rural areas, one E1 link might serve a whole string of cell towers. Suddenly with 3G HSPA (High Speed Packet Access), one cell tower serves ~14 Mbps to each of three sectors; i.e., 30-50 Mbps, with higher data rates coming. Fiber to the cell towers could accommodate these much higher data rates. But, not only is fiber construction expensive, fiber requires access to physical rights of way that are typically bound up in layers of permits and regulation, including regulations tied to traditional regulated monopoly phone service. This exposes a communications policy issue that hasn't been widely discussed. An effective policy for broadband access should also promote the availability of dark fiber to competing operators to help foster mobile broadband access as well as fixed!

Meanwhile, where fiber is too expensive, point-to-point wireless backhaul is a practical alternative. Indeed, many cellular networks already use microwave radios capable of carrying 2-4 T1/E1 links and mobile licenses in many developing countries include both GSM spectrum and spectrum for microwave backhaul links. But four E1 links (6 Mbps) is woefully inadequate for 3G data.

Luckily, the performance of point-to-point radio links has been improving at Moore's law rates or better. Wireless links can't match the throughput of fiber over long distances, but today they can provide 100 Mbps to over 1 Gbps for distances of a few miles. Obviously there's a capital cost, for the equipment, its installation and for spectrum. And there are reliability issues. High capacity point-to-point radio links require tens of MHz of spectrum — something only available above 10 GHz where rain attenuates radio signals. Luckily, adaptive modulation can keep some bits flowing even during rain, providing for example, 400 Mbps 99.9 percent of the time and 70 Mbps 99.999 percent of the time. With priority, during rain, voice still works while TCP/IP slows down a bit.

Ideally we'd have dark fiber available to all comers, but until that day arrives, wireless backhaul will allow mobile Internet access to flourish. **IT**

Brough Turner ([News - Alert](#)) is Senior VP of Technology, CTO and Co-Founder of NMS Communications ([www.nmscommunications.com](http://www.nmscommunications.com)).

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IP-08	WAN/LAN	8xFXO/FXS	MMC, USB
IP-BRI	WAN	4xBRI	MMC, EC module(option)

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IP-04



IP-08



IP-BRI



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By: Mike Sheridan



## Managing Expertise in the Enterprise— Fundamental to UC Success

Has this ever happened to you? Recently I needed an answer to an expense account question. Since this involved a policy question, I wasn't sure if I needed someone in HR or accounts payable. How could I identify the resident "expert" in my company to quickly solve my problem?

In a sense, isn't this why contact centers were invented? Getting the customers to the right people to help them address their individual inquiries. As a result, in the contact center, it's straightforward — everyone is defined by a certain skill set and it's relatively easy to route the inquiring customer to the right expert to help them based on that skill set.

This got me thinking. If everyone in the company is like me, a "customer" seeking answers, how does the enterprise identify and manage its experts and expertise? The challenge is not just identifying skill sets but also in providing easy communications methods to leverage that skill. I want to find the right *person*, someone who possesses specialized knowledge. Ultimately, isn't this one of the most significant goals of any organization's Unified Communications deployment? Helping improve efficiencies and employee productivity — finding the right person, the first time.

### So, as IT starts to think about UC for knowledge management, some questions emerge: (1) how to define people's expertise, (2) how to manage that expertise, and (3) how to make it available to the enterprise?

The challenge is though... how is the enterprise defining skills? And, is "skills" even the right terminology? Most employees wouldn't define themselves as having a specific skill set. They might say they have expertise in a certain area or knowledge of a certain type of function. Plus, that list of expertise is going to be considerably longer and more nuanced than what you find in the contact center.

So, as IT starts to think about UC for knowledge management, some questions emerge: (1) how to define people's expertise, (2) how to manage that expertise, and (3) how to make it available to the enterprise?

First, how do you assess who knows what? Some top companies are using *self-assessments*, with social networking as an enabling technology. Gary Reiner, CIO of GE, recently told *Fortune*, "We've been building a professional-networking capability that allows everybody to put in the organization directory the skills they bring to bear. It's very searchable, so if someone is looking for a particular skill, they

can go to that site. That gets about 25 million hits a day, so it really is becoming sort of a heartbeat of the company."<sup>1</sup>

Self assessments may also include identifying certifications or proficiencies that go beyond the typical resume items, to include specific industry knowledge or competitor experience. Or, enterprise search and data mining can be used to scan emails, blogs and collaboration tools like Microsoft SharePoint and look for keywords and name association.

Second, where do you store this information? HR systems may be a natural place to start, or perhaps enterprise directories like Microsoft Active Directory that already provide authorization and authentication services. External social networking services like LinkedIn, Plaxo and FaceBook may even extend the knowledge base further.

Finally, how do you make the information available? In the contact center, managers have used group assignments (one group = one skill). Over time, these skills and groups got very granular. You could rank a skill, so you could route your best customer to an agent with X + Y skills and a 1 to 10 subjective ranking on both skills. However, some contact centers are starting to move away from this more complex model because it became too difficult to manage and they were seeing diminishing rate of returns and it didn't meaningfully impact customer satisfaction! Lesson learned: keep it simple. Just because you can, it doesn't mean you should.

The contact center knows, from long experience, it's not trivial to manage expertise. In the enterprise, it will be exponentially more difficult because the environment is much more dynamic and complex. But, it's absolutely critical. Managing the knowledge of experts throughout the enterprise is going to be essential to the ultimate success of every UC deployment.

Going back to my original dilemma — the expense account question — I know the value of getting to the right *person*. I knew someone in HR who, if she couldn't help me, would point me to someone who can. As it turns out, I was able to find the person in HR who could help me. In the future, the right tools like data mining applications, social networking sites, and enterprise directories can make the knowledge base even more comprehensive and data-rich for the next person looking for the same information.

Making these connections requires technology as fluid and interconnected as human relationships. As technologies and methods evolve for companies to manage their knowledge assets, there is much to learn from contact centers. **IT**

#### Footnotes:

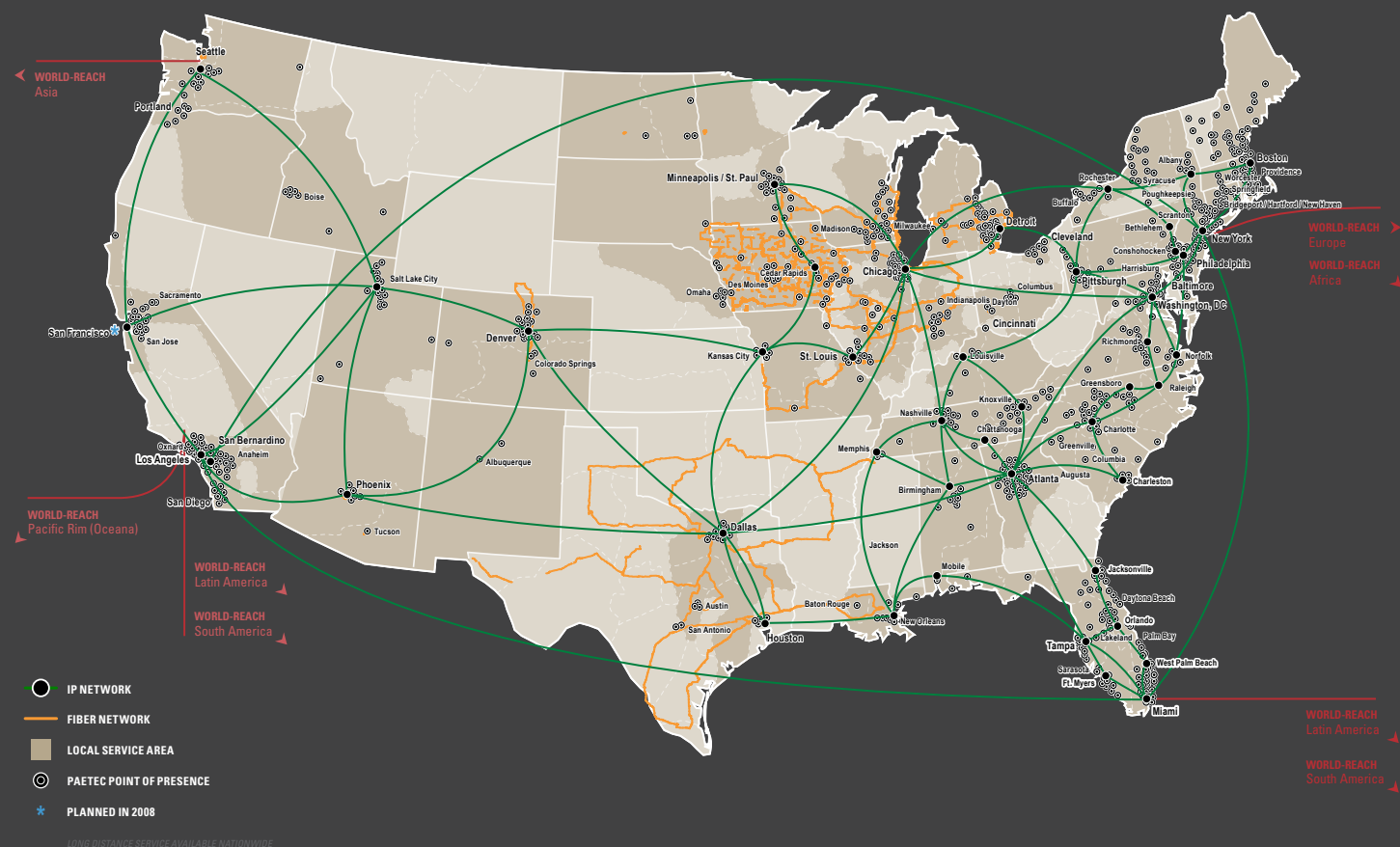
<sup>1</sup> *Fortune Magazine*, "Information worth billions: General Electric's CIO, one of the world's most influential, tells how he makes infotech pay in a big way," by Geoff Colvin, July 21, 2008.

*Mike Sheridan is Senior Vice President, Strategy and Marketing, of Aspect (News - Alert) Software, Inc. ([www.aspect.com](http://www.aspect.com)).*



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By: Michael Stanford



## WiFi / Bluetooth Coexistence

Analysts predict that in 2010 out of 1.4 billion mobile phones shipped over 200 million will have WiFi. To distinguish them from non-cellular WiFi phones, these are called “dual-mode” phones. All dual-mode phones will also have Bluetooth.

When you use a Bluetooth headset for a cellular voice call, the handset’s cellular and Bluetooth radios stream simultaneously. Similarly, when you are using a dual-mode phone to make a call over WiFi, the WiFi and Bluetooth connections are simultaneously active. That’s a problem, since they run in the same frequency band. Their technologies are quite different and incompatible.

WiFi shares the medium (the radio spectrum) using a contention method that transmits only after first sensing that the spectrum is idle. If the packets get corrupted, it backs off to a lower speed that is less susceptible to interference, and retransmits. Bluetooth uses a “frequency hopping” technique that transmits very briefly on a narrow slice of spectrum, then instantly hops to a different frequency for its next transmission. If it hops into the middle of a transmitting WiFi packet, it can corrupt it. After a few such occurrences, the WiFi transmitter backs off to a lower speed. The lower speed transmission takes longer to deliver a complete packet, so it is statistically more likely to get zapped by another Bluetooth hop.

This leads to a vicious circle, of WiFi slowing down and consequently being more likely to be interfered with, consequently slowing down more.

Chip manufacturers have come up with a variety of “coexistence” techniques that mitigate this problem. The Bluetooth 1.2 specification includes a feature called Adaptive Frequency Hopping (AFH) which tries to avoid channels where it senses WiFi activity. More explicit coexistence techniques have the Bluetooth and WiFi chips in the phone communicating with each other directly to arbitrate transmissions.

Even so, the current generation of dual-mode phones has difficulty with coexistence. It is common for organizations implementing FMC to ban Bluetooth. The standards bodies have been at work on this (IEEE (News - Alert) 802.15.2 and IEEE 802.19), and the next generation of combo WiFi/Bluetooth chips have improved coexistence capabilities, but the definitive solution is to move the WiFi out of the 2.4 MHz spectrum by using 5 GHz 802.11n. 5 GHz has the added benefit of 20 non-interfering WiFi channels compared to just 3 in 2.4 GHz. If you have a compelling reason to stay in the 2.4 GHz band, you can get around the problem by abandoning Bluetooth for headsets and using WiFi instead, an approach promoted by Nanoradio for several years, and now by an interesting startup called Ozmo. **IT**

*Michael Stanford has been an entrepreneur and strategist in Voice-over-IP for over a decade.*

## Ask the Mobile VoIP Expert

By: Mark Hewitt



## “Mobile VoIP = Mobile Services”

Last month the European Union (“EU”) funded the MUSE project, which stands for Multi-Service Access Everywhere; George Lucas funded the Media Lab “Content Anywhere, Anydevice, Anytime” at USC; and “BT” (News - Alert) British Telecom acquired Ribbit for \$105 million.

To understand how all of these events relate, you must understand the increasing demand for mobility and a ubiquitous method of accessing content. I define this convergence broadly as “Mobile Services” and as a natural extension of early generation Mobile VoIP services.

It is also important to understand how Mobile VoIP came into being. First came the pain of different platforms from different carriers, each creating “Walled Gardens” making the lives of consumers even more complex. This was followed by early Mobile VoIP providers creating products that connected “Islands”, or individual “Walled Gardens”, into a common broadband platform.

I believe 2008 will be recognized as the year of the “birth” of Mobile Services, which have evolved as a direct result of changing technology and consumer behavior. People have a basic need to be connected, and Mobile Services represent the evolution of a Mobile EcoSystem linking political and economic borders of former generations of Mobile Networks.

Evolving networks promise ubiquitous broadband access anywhere. While full realization of those promises is still years in the future, today’s Mobile EcoSystem offers network and application providers a framework to deliver a range of products, from critical business and medical applications to current weather and sporting events, across a broad range of mobile devices. To realize just how important this Mobile Services Eco-

System is to our future success, take a look at the forecasts for increasing penetration of “mobility” in the world. (See Table 1.)

You can see by this forecast of worldwide mobile penetration that the mobile platform becomes the dominate method for accessing information, services, and content. The improvement of battery life, networks, and cross network service platforms all make this possible.

Thus is born the Mobile Services EcoSystem. **IT**

*Mark Hewitt is Chief Strategic Officer of i2Telecom (News - Alert) International, Inc. (www.i2telecom.com).*

	1998	2008 (estimated)	2018 (estimated)
<b>Mobile Penetration</b>			
Global	5%	55%	96%
China	2%	48%	99%
India	1%	28%	82%
<b>Networks</b>			
3G Penetration	0%	18%	90%
Networks Speeds	< 50Kbps	< 2Mbps	< 1Gbps
<b>Device</b>			
Smartphone Penetration	1%	10%	40%
Battery Life	2 hours	2.5 hours	24 hours

Source: ITU, Chetan Sharma Consulting

Table 1. Mobile Penetration 1998~2008



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By: Tony Rybczynski



## The Changing Value Proposition for VoIP

IP telephony has definitely gone mainstream.

The value propositions for IP telephony include:

- Reduction in cost of moves, adds and changes (plug-n-play).
- Reduction in toll costs (everything on IP).
- Opportunities for centralization of call control (data center telephony).
- Virtualization of contact center (agent location independence).
- Business continuity (disaster recovery).
- Teleworkers and mobile users (unwired users).
- Applications on IP phones (e.g. alerts, directories, zone paging).
- Reduction in opex (convergence).

Of course, in real world deployments, enterprises have to answer the question, "Why now?" Some of the more common triggers include: equipment obsolescence, Centrex contract termination, new sites, and corporate initiative such as new contingency planning and telecommuter policies. They also have to answer the question of, "How do I manage risk and maintain investment protection?"

The above value propositions deliver operational and cost benefits to IT; increased agility for the lines of business; and an enriched experience for end users. But how does IP telephony move the business forward and accelerate the business?

The answer lies in unified communications (UC), within which business-grade telephony is a critical component.

What is unified communications?

- People love to talk, just not voicemail tag ([News - Alert](#)) (some people even send emails to say 'read my voicemail')...
- People love email, just not spam and being copied on everything under the sun...
- People love video just not its complexity...
- People love their personal directory of friends and contacts, just not managing different contact lists (some people use their cell phones rather than their desk phones because of their cell phone directories).

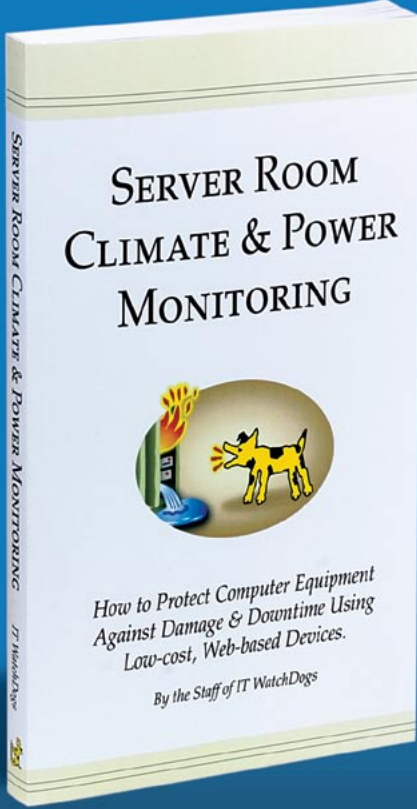
UC can be viewed as a unification of the user experience to allow optimal use of the available communications modes by people.

"Optimal use" also addresses the latency inherent in most business process by accelerating time-to-X (where X is decision, service, support, revenue or problem resolution). How? By integrating communications directly into business applications to allow users to initiate UC directly from within the application, or to notify stakeholders directly from within the application based on some external trigger.

The value proposition of IP telephony is therefore changing. IP telephony is an important step to unified communications applications that accelerate personal and group results, and to communications-enabled applications that accelerate business processes.


The driver for IP telephony should not be centered on delivering only dial-tone, but also accelerating the business overall. **IT**

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



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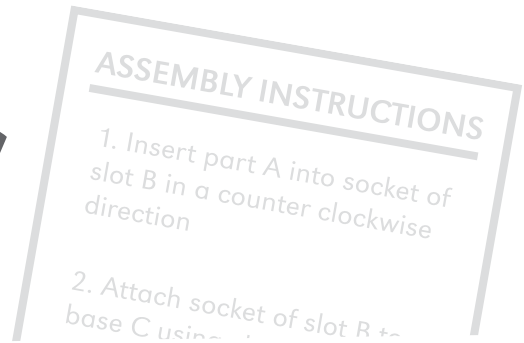


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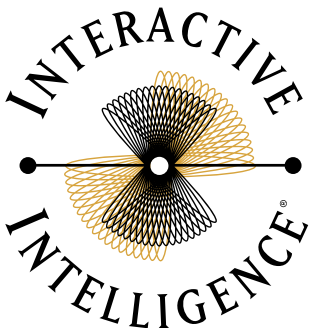


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By: Jeff Hudgins



## Part III: ATCA versus Carrier Grade Rack Mount Servers... Making the Right Choice

Over the past few months we have been exploring trade-offs between AdvancedTCA ([News - Alert](#)) (ATCA) and Carrier Grade Rack Mount Servers (CGRMS). In part III of this series, we will look at network processing options with respect to scale and performance.

To make this comparison, let's build two standard 47U rack frames. The first frame includes three fully configured ATCA 13U (NEI: A-13000) and the second contains twenty 2U rack-mount servers (NEI: N-2500R3).

Due to thermal limitations, a typical N-2500R3 can be configured with two Cavium OCTEON 16 core PCI-E cards with 4 x 1GE ports. The A-13000 can support up to twelve RadiSys ([News - Alert](#)) ATCA-7400 network processing blades in a single box. The ATCA-7400 consists of up to four AMC modules which each consist of a quad OC-3/STM-1 framer with 2 x 1GE ports. The table below highlights the density of each frame in this example with respect to their network I/O interfaces.

	N-2500R3	A-13000
Number of GE network I/O ports per box	8	96
Number of boxes per frame	20	3
Total number of network I/O ports per frame	160	288

While many other characteristics are important when it comes to network processing, the overall network I/O density of the ATCA frame is nearly twice the frame using Carrier Grade Rack Mount servers. The ATCA platform is also much easier to scale when the application demands. It is much easier to add a few blades to an existing ATCA box than to install a whole new server or to open an installed rack mount server.

**Final Score.** ATCA architecture is the clear leader when it comes to network processing applications. If an application only requires a small amount of network processing, then the smaller rack mount server is the better choice, but beware of any future upgrades or expansion needs. **IT**

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



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By: Hunter Newby



## The Functional Separation of the Voice Peering Fabric

In June 2008 the Voice Peering Fabric, a service of Stealth Communications ([News - Alert](#)), publicly announced its major components would be functionally separated, ushering in a new era in Voice Peering.

The original VPF ([News - Alert](#)) model consisted of an internationally distributed Layer 2 Ethernet network built specifically to carry VoIP traffic. The VPF has over 330 members and carries over 400 billion minutes of VoIP traffic annually of which approximately 2 billion is on-net, multi-lateral ENUM and SRV VoIP traffic. To access this massive VoIP market, a network operator needed to establish their own bi-lateral routes and agreements and also a dedicated Ethernet connection to the VPF – until now. As of right now access to the VPF Minutes Market, ASP Market for SS7 databases and the ENUM and SRV Registries are accessible via the public Internet too. Also, the VPF has added a trading engine for VoIP traffic based on Sansay ([News - Alert](#)) session border controllers for automated route matching – major changes in VPF functionality and philosophy.

In the past, the private Ethernet network was desired by many major global and domestic carriers for its security and QoS. More recently, many requests have come from smaller and remote network operators desiring VPF access, but who couldn't justify, or realistically access VPF node sites. The impetus for change was to address this group and fill their needs. Note that members accessing the VPF via the public Internet will only be allowed to purchase, not sell, services on the trading platform.

There are also two other new dimensions to the VPF. First, the ENUM and SRV Registries are now open for communities to create their own

sub-registries in which they can set their own rules. This is a huge step forward for the VPF to address the growing trend of social networking and how those communities communicate internally and externally amongst other communities. The ability to create specific rule sets also applies to the traditional carriers and voice service businesses wishing to continue to charge fees for termination to their endpoints. So, for instance, a CLEC, or MSO can create their own ENUM root in the VPF ENUM Registry and allow access through the look-up system to anyone agreeing to pay their set termination rate – an instant success, as it enables one-hop routing and no binary sales process. The VPF is already a liquid market.

The second new feature is the clearing and settlement of transactions. Through their commercial banking relationship with a major U.S. financial institution, Stealth Communications has essentially become a bank for the wholesale minutes business. Through deposit accounts, each organization with such an account is able to transact with the others securely and reliably, removing all risk traditionally associated with the wholesale minutes business. This is not only a fundamental change for the VPF, but more importantly for the entire voice communications industry, for there has never been such an automated, neutral and completely transparent platform. The best part: the VPF won't charge settlement or commissions, but will merely pass through wire-transfer fees. Now that's a change that can be turned in to dollars for a shrinking margin voice business! (For more info, please visit [www.thevpf.com](http://www.thevpf.com).) **IT**

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

## Enterprise View

By: Max Schroeder



## A Reseller Educational Series — Partners in Compliance

The privacy provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) has transformed how business is conducted in the healthcare industry. The Privacy Rule and the Simplification Rules apply to health plans, health care clearinghouse providers and to any healthcare provider who transmits health information in electronic form.

Hosted services are a major growth area for healthcare as the industry has a profusion of small providers like clinics, doctor's offices plus home care agencies. Hosted VoIP, fax and healthcare applications are particularly attractive due to their low buy-in costs, convenience and reliability. However, HIPAA regulations ([www.hhs.gov/ocr/hipaa](http://www.hhs.gov/ocr/hipaa)) can be rather vague in the opinion of many healthcare industry professionals. So, if you are looking to become a reseller of healthcare services or seeking a service provider partner, you need to take a close look at your prospective colleagues. You do not want one of your partners to be the "weakest link in the chain" but a valued and secure resource for your company.

SecureCare Technologies, Inc. provides hosted services including their Sfax™. *Digital Signature Service* ([www.sfaxme.com/comp.html](http://www.sfaxme.com/comp.html)) to some major healthcare companies. One of these is Thornberry Ltd., based in Lancaster, PA ([www.thornberryltd.com](http://www.thornberryltd.com)) a developer and marketer of intelligent, leading-edge management information systems for the home healthcare and hospice industry since 1992. Thornberry's NDoc® suite of products is designed to quickly deliver

accurate information resulting in improved patient care, reducing costs and fostering timely reimbursement.

A recent addition to Sfax™, NewCrop LLC, provides comprehensive e-prescribing systems, delivered over the Internet. The systems are designed for incorporation into other medical applications such as EMRs (Electronic Medical Records) including a complete re-branded doctor-to-pharmacy solution. According to a report by SureScripts ([www.surescripts.com](http://www.surescripts.com)) e-prescribing has the capability of saving the health care industry over \$26 billion over the next 10 years. Only six percent of physicians are e-prescribing at present so this market segment has tremendous growth potential.

A key to a successful reseller operation is to get into market segments that have a substantial growth potential and the healthcare industry is definitely in that category.

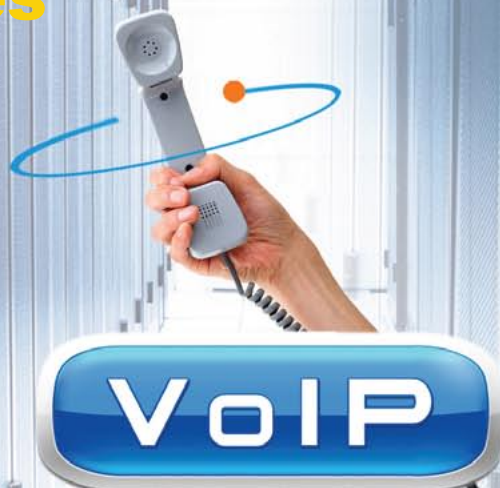
To learn more about industry trends, selecting hosting partners and how to sell effectively into these hot segments, visit and participate in Reseller Live — Wednesday, September 17, 2008, at 12:45-2:30 pm at TMC's ITEXPO West 2008, in the LA Convention Center [www.tmcnet.com/voip/conference](http://www.tmcnet.com/voip/conference). **IT**

*Max Schroeder is the Senior Vice President of FaxCore ([News - Alert](#)), Inc. ([www.faxcore.com](http://www.faxcore.com)) and will also be the moderator of Reseller Live at ITEXPO West 2008.*



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By: Rich Tehrani & Max Schroeder



## Continuity Planning 101 - A Continuing Educational Series

### The Minimalist Guide for Procrastinators

Procrastination is a type of behavior which is characterized by deferment of actions or tasks to a later time. Psychologists often cite procrastination as a mechanism for coping with the anxiety associated with starting or completing any task or decision — *Wikipedia*.

The three basic phases of a continuity plan are:

**Phase 1: Planning** — The most critical of the three phases which begins with a full assessment of your business readiness.

**Phase 2: Business Continuity** — The key is to define what level of interruption is unacceptable and develop an avoidance plan.

**Phase 3: Recovery** — This phase is directly and inversely proportional to Phase 1. No Phase 1 means the recovery time could be infinite (I.e. your company is no longer in business).

Of course, if you are a *procrastinator*, you have not even begun the assessment stage of Phase 1 so your company is definitely at risk. If this is *you*, some checklist tips:

1. Think hosted services for data backup. This is the quickest, most efficient and most reliable method for operations of any size.
2. VoIP, Fax and Email — Office premise equipment can be backed up using an employee home office with broadband service but hosted

solutions (either as full-time solutions or failover) would be best since they are totally mobile and dependable.

3. Employee mobility — Laptops are essential. Home broadband connectivity is easy to implement. A relocation plan for alternate lodging can be as simple as selecting one or more hotels with high-speed access.

Fortunately today's IP world has provided convenient and inexpensive solutions for companies of all sizes. Plus they are so simple to implement even a *procrastinator* will have trouble finding excuses.

The suggestions listed above are not intended to dissuade our readers from developing a full continuity plan but as an interim step to provide short-term protection. TMC and the DPCF team also recommend that you seek out consultants and resellers specializing in business continuity to develop a comprehensive plan.

For more information please go to: [www.tmcnet.com/disaster-planning/Default.aspx](http://www.tmcnet.com/disaster-planning/Default.aspx) or contact Max Schroeder at [maxschroeder@tmcnet.com](mailto:maxschroeder@tmcnet.com). You can also visit the Disaster Planning Pavilion at ITEXPO West 2008 the LA Convention Center [www.tmcnet.com/voip/conference](http://www.tmcnet.com/voip/conference). **IT**

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

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

## Nitty Gritty

By: Richard "Zippy" Grigonis



### Carlo Gavazzi Expands Their Custom PICMG Service Offering

One of the hallmarks of any manufacturer of rackmount or embedded computing systems is the ability to focus on meeting the needs of a dynamic marketplace via customization services.

Based in Brockton, Massachusetts, Carlo Gavazzi Computing (News - Alert) Solutions ([www.gavazzi-computing.com](http://www.gavazzi-computing.com)), a sister company of Carlo Gavazzi Automation Components and a wholly-owned subsidiary of Carlo Gavazzi AG, a publicly-traded, global electronics group, has long been known for their innovative electronic packaging and system expansion solutions. Recently Gavazzi has expanded its PCI Industrial Computer Manufacturers Group (News - Alert) (PICMG (News - Alert)) service offering to provide custom connectivity solutions for harsh environments and the enterprise office.

It's not surprising, since they've been an innovative leader in system architecture for computing platforms for many years, engineering solutions for the military, industrial and telecom industries and offering core product lines in electronic packaging, serial I/O and system expansion.

Carlo Gavazzi's engineers employ interoperability testing, custom integration and packaging to inexpensively develop quality CompactPCI (cPCI), AdvancedTCA (ATCA) and MicroTCA (News - Alert) solutions for users in the industrial, military and telecommunications markets.

Carlo Gavazzi engineers work with each user to develop or retrofit an optimal connectivity solution, including 2- to 14-slot AdvancedTCA solutions for remote office applications. Because of demanding power, thermal management and connectivity requirements, designing custom backplanes and chassis can be a tricky affair; fortunately, Carlo Gavazzi performs various kinds of interoperability testing to evaluate system performance. Gavazzi has expertise in shelf management software, such as the offering from Mark Overgaard PigeonPoint Systems (the preeminent supplier of shelf and board management solutions for AdvancedTCA), and so Gavazzi is able to customize solutions down to the shelf management and firmware components.

An Executive Member of PICMG, Carlo Gavazzi Computing Solutions engineers a wide range of new and legacy PICMG technologies. The company's CompactPCI (News - Alert)/VME enclosures are engineered with a versatile open architecture for applications where a traditional "whitebox" computer won't meet exacting requirements. AdvancedTCA models are customizable in various slot configurations to suit individual bandwidths, and MicroTCA models are engineered to be smaller, economical connectivity solution than ATCA. Every Gavazzi solution meets PICMG guidelines and can also be designed to the NEBS (Network Equipment-Building System) specifications (just in case you want to drop your machine from a six-foot height, send thousands of volts through it or hit it with a flamethrower). **IT**

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



# Introducing the MyGlobalTalk Mobile VoIP Community on TMCnet

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<http://mobile-voip.tmcnet.com>

By: Anthony Iadisernia



## The Business Transformation Value of IP Telephony

Increased productivity and customer satisfaction are the top priorities for any business today. To accomplish this, people need the ability to work seamlessly with one another, both within organizations and across networks

of partners, suppliers and customers. Organizations attempting business transformation are finding that a key to improving productivity, business responsiveness and innovation is to deliver a variety of collaboration tools while accommodating work style preferences.

### Setting the Stage

Every healthy organization has started the conversation around business transformation. Chances are, not many of them view or include their communication infrastructure as one of the "applications" that will help transform their business. But whether your organization is planning for convergence, or has already made the leap, IP telephony and its feature-rich applications can play an important role in business transformation. Newer capabilities like presence, personalization, instant messaging, video, and multimedia collaboration can be combined with more traditional tools such as voice mail, fax, and email to give any business the competitive advantage it's looking for. The right IPT strategy can play a vital role in business transformation.

### The five steps to a successful IPT strategy plan:

**1. Talk to your customers.** Interview the business unit leaders within

your organization. Help them understand all of the features available to them. Discuss a technology roadmap that is aligned with their plan. Ask them about their day-to-day processes. You may be able to map a specific application or function to help streamline a business process.

**2. Build an IPT Strategy Roadmap.** Understand and communicate current capabilities. Align upgrades, adding features to your organization's overall business transformation plan. This will go a long way during budget discussions.

**3. Set Expectations.** Over-communicate your current and future capabilities. Ensure your customers understand when they can expect that new feature.

**4. Budget Accordingly.** If you are successful with steps 1, 2, and 3, your chances of support are very high. Executive buy-in is a must-have.

**5. Deliver What You Promise.** The primary goal of business transformation is to increase flexibility and adaptability. Your commitment to the success of business transformation is important since it is an important piece of the big picture.

Many IT organizations have reaped the benefits of lower maintenance costs, reduced telecom expenses, better disaster recovery and asset consolidation—which add up to lower TCO (total cost of ownership) by migrating to an IP telephony infrastructure. However, the true benefit of deploying IP telephony can go far beyond reducing expenses, to achieving the agility, productivity, and flexibility gains needed to out-perform the competition. **IT**

*Anthony Iadisernia is Director of Network Solutions ([News](#) - [Alert](#)) for Forsythe Solutions Group.*

## Ask the SIP Trunk Expert

By: Steven Johnson



## "SIP Trunks in 20 Minutes"

SIP Trunking is the next step in the evolution of enterprise communication. This service uses Session Initiation Protocol ([News](#) - [Alert](#)) (SIP) over either the public Internet or dedicated IP connections to make and receive phone calls, which are converted

to the Public Switch Telephony Network (PSTN) for delivery to non-SIP users. The service offers enterprises cost savings through the use of a single network for voice and data, optimum use of available bandwidth, lower telephony costs and the opportunity to expand the use of SIP to support its long term promise of Unified Communications. SIP trunks open the door for enterprises to take full advantage of the benefits of SIP beyond the LAN.

Many customers we speak with expect SIP trunk installations to be complicated and challenging. However, SIP trunks can be deployed with a minimal amount of time and headache. The key to a smooth installation is a well-planned network and the selection of components that are certified as interoperable.

Here's what most enterprises need to know when they embark on a SIP trunk installation:

**A SIP trunking service provider** — There are many service providers today offering SIP trunk solutions. A traditional voice telephony service provider typically offers one or more T1/E1 trunks to the enterprise for fulfilling its needs for voice communication outside its own premises. With

SIP Trunking, service providers deliver call capacity in much smaller increments and have the ability to expand and contract the trunks very quickly. The SIP Trunking service provider is responsible for placing the calls onto the PSTN and often can reduce long distance charges significantly.

**An SIP-enabled PBX** — Many IP-PBXs are designed to handle SIP communications. This is a necessity, as SIP trunks (like all realtime communication such as VoIP) are based on the protocol. Leading IP-PBXs provide the features that enterprises require. Many PBX vendors also perform rigorous interoperability testing with other vendors and ITSPs, which helps to strengthen security for your SIP communications and eliminate interoperability issues.

**An edge device that can handle the traversal of SIP traffic** — The enterprise edge component serves many critical purposes, including solving the NAT traversal issues that are common with SIP, maintaining security of the PBX and the resolution of interoperability issues between the ITSP and IP-PBX.

We at Ingate, and our partners, will demonstrate the ease of SIP Trunk installation at the upcoming Internet Telephony Conference & Expo in Los Angeles during our SIP Trunk Seminar Series. Stop by to watch us deploy a SIP Trunk solution in 20 minutes or less. **IT**

*Steven Johnson ([News](#) - [Alert](#)) is President of Ingate® Systems ([www.ingate.com](http://www.ingate.com)).*

By: Marc Petit-Huguenin



## Exercise Your Internet Rights!

The Internet is a technological miracle and we, as IP communications service providers and Internet consumers, have a duty to enable it to not just survive, but to thrive. Had the old, established telecommunications industry known the implications of its singular design, it would have strangled it at birth. Luckily, they missed that opportunity and it is now impossible to reboot the Internet, though many will continue to try with often somewhat successful attempts at crippling this unique property. These attempts to sabotage the Internet go almost without opposition because the very people that should defend the Internet, the end-users, do not know enough about the technology behind it to realize when it is being threatened.

The Internet design principle can be summarized like this: all of the power goes to the end-user, none to the network. This is unique in the development and deployment of communication networks and has resulted in the creation of an almost unlimited number of new applications and services for end-users. For example, development and deployment of "Caller ID" on the PSTN took many years and, when finally deployed, was costly for end-users to buy. The creation of similar services on the Internet took a fraction of the time to develop and deploy, are considerably feature-enhanced over the PSTN versions and are extremely inexpensive to purchase. It is important to understand that this is a fundamental aspect of the Internet design and anything short of this total power for the end-user is the result of a deliberate removal rather than a benign, accidental omission.

The most tragic blow to this principle was the advent of NAT (Network Address Translation). The NAT device is the box that many people install at home and often incorrectly refer to as a router. Sadly, this was presented as an improvement as it permits end-users to connect multiple computers to the same Internet connection to the detriment, though, of being able to exchange data with anybody on the Internet. These NAT boxes also promised to provide increased security, but users do not really need a box to protect their computer, they simply need an operating system that does not catch a virus or other malware in a matter of minutes!

The problems created by NAT boxes started to be visible to end-users with the arrival of the VoIP phenomenon. Unlike the web, which is primarily content designed to treat the end-user as not much more than a TV watcher, VoIP needs a symmetrical exchange of data between the two parties on a call, and this is exactly one of the powers that end-users gave away when they were forced to use a NAT box.

The VoIP industry needed a way to solve this problem but, instead of restoring the end-user's lost powers, another new "box" was created, the SBC (Session Border Controller). A Session Border Controller is a box installed in the VoIP provider's network that has as a goal, among other things, the repair of damage caused by NAT boxes. The advantage of an SBC is that it works magically for the end-user, but not with-

out cost for the VoIP provider and we all know who ends up paying in the end for these additional costs!

The alternative to SBCs and the like is to try to restore some of the Internet power lost by the end-users. New IETF protocols under development, like TURN, STUN and ICE, do this by having the device on the network determine through trial and error the best method of NAT traversal and making an intelligent decision as to which one to employ. Compared to an SBC, these solutions are at least partially implemented on the end-user side and offer hope that the power lost by the end-users so far could be, in the future, reclaimed for other applications, not just VoIP.

In the end, the right thing to do is to reclaim our lost Internet power by lobbying our ISPs to deploy the next generation of IP addresses, IPv6 and to use better, more secure operating systems. This will solve our need for NATs, SBCs and other NAT traversal protocols enabling, once again, all Internet devices to seamlessly talk to all other Internet devices. **IT**

*Marc Petit-Huguenin is the Chief Technology Officer of 8x8 (News - Alert), Inc. ([www.8x8.com](http://www.8x8.com)). 8x8 offers voice and video Internet-based telephony services for business and residential customers. Marketed under the Packet8 brand name ([www.packet8.com](http://www.packet8.com)), these hosted communications solutions enhance the value and functionality of existing high speed Internet connections by delivering advanced communications features and digital quality phone service at a fraction of the cost of legacy, copper wire alternatives.*

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By: Don Witt



## VoIP/Asterisk Channel Evolution

Starting from meager beginnings over three decades ago<sup>1</sup>, VoIP is a technology that is reshaping the telephony industry. A number of factors have provided resistance to the evolution of VoIP and others that have enabled VoIP to flourish.

One of the major limiting factors is the actual media that carries the signal. When voice was first carried over the Internet, the technology of the day was based on 4800 and 9600BPS modems. Based on today's standards and the demand for QoS, it is understandable why VoIP took so long to evolve.

Large telephony manufacturers also provided significant resistance to VoIP's evolution. The large manufacturers already controlled the market. Their current equipment based on TDM provided large margins and was very profitable. Moving to VoIP meant changing the infrastructure and that would change the profitability of the telephony manufacturer.

The channel itself also provided significant resistance to VoIP. The telephony manufacturers, resellers or "interconnects" had complete product lines and were making good margins with their sales. There was no need to move to VoIP. The word on the street was that VoIP did not deliver a quality solution.

The manufacturers also protected the margins of the resellers making the resellers loyal to their existing suppliers and resistant to new VoIP suppliers that do not understand channels.

As the interconnects know, they are the sales force for the telephone companies and manufacturers. They are the feet on the street. They are the direct link to the consumer of the telephony services and equipment. Their margins need to be protected through channel controls.

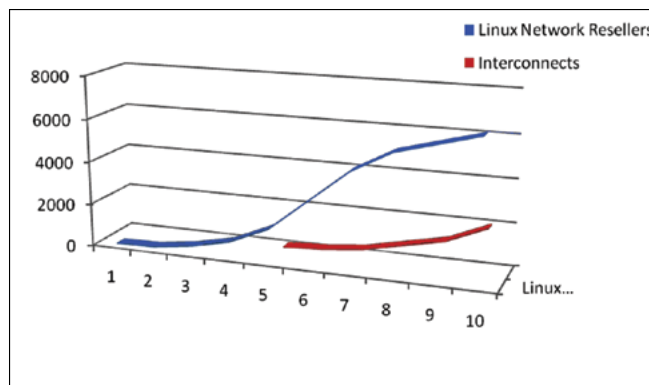
Most VoIP manufacturers do not know the meaning of channels or they are trying to redefine the channel. Unfortunately for them, the VoIP companies that succeed will be the ones that develop a strong channel strategy. Selling to everyone that calls a manufacturer to order is not a channel strategy.

### VoIP Enabling Factors

SIP and RTP both have had a major impact on the evolution of VoIP.

During the 1990s, user demand for high speed connections for use with the Internet increased tremendously. This also gave momentum to VoIP. Now users were able to use DSL and cable for the Internet as well as VoIP. More businesses were signing up for affordable T1s providing them the bandwidth necessary to use VoIP. Everything was starting to come together.

Asterisk ([News - Alert](#)) was a major factor in changing the perception of VoIP. It was also a way to tie the TDM and VoIP worlds together. At first in 2001 and 2002, Asterisk was shown at Open Source shows to Linux and FreeBSD groups. Then it was presented at Internet shows such as TMC's ITEXPO. As the



first Digium distributor, my company, Cylogistics, has been able to watch Asterisk growth very closely. During the last half of 2004, Asterisk started to take off.

With the dot-com bust, Linux networking resellers were looking for the next gold mine. They soon came to realize that they had found it in telephony and VoIP. Asterisk enabled them to inexpensively deliver telephony to their existing networking customers as well as expand their customer base. Thus, the Linux networking reseller and Asterisk combined to put pressure on the major telephony providers to start moving to VoIP. By the end of 2005, the major telcos committed to moving to VoIP.

The Linux networking channel and Asterisk have had a profound impact on the telephony industry. Linux resellers have been on the VoIP bandwagon from the beginning. As indicated in the chart accompanying this column, the Linux resellers were early adopters. They really had no competition from the traditional telephony reseller until just recently. Even now, the interconnects are using VoIP solutions offered by the major telco providers.

This trend has been easy to monitor. The major manufacturers of traditional telephony equipment sell their products through national distributors. The new VoIP products do not meet the national distributor requirements and the manufacturers have had to find smaller regional distributors or VoIP specialty distributors like Cylogistics. Now that the interconnects are interested in Asterisk and VoIP, they must find suppliers of the emerging VoIP technology. Cylogistics, being one of those suppliers, is now getting a number of calls from the interconnect market segment and is seeing a significant increase in interconnect inquiries.

VoIP is now in full swing. The bandwidth is there. The infrastructure is there. Moreover, the channel is there for those that choose to use it. **IT**

### Footnote:

<sup>1</sup> Jackson, Barry. "History of VoIP". University of Texas at Dallas. Retrieved on July 11, 2008.

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

## Join The Packet 8 VoIP Services Community!

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

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



## VoIP Services For SMB & Residential

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By: Elaine Cascio



## The Future of Self-Service

This new column is going to focus on technology, process, and organizational issues from a different perspective — that of the customer. In a technology-oriented world, it's easy to concentrate on the bits, bytes, bells, and whistles,

and forget an overarching goal — serving our customers better. The team at Vanguard Communications will be writing each month on ways that technology can be planned and deployed to help achieve that customer-centric goal.

Self-service has become a part of everyday life. Every day we stop at an ATM, pump our own gas (ok, unless you live in New Jersey), buy a book online, check ourselves out at your local supermarket or check ourselves in for a flight. Often, we don't think of these everyday tasks as self-service, which is the real key to usability — transparency.

Looking three to five years out, I think we'll see more changes in self-service that we're only beginning to think about today. Businesses have *a lot* of opportunities to interact with customers. And as more and more tools are available for us to reach out, the lines between "self-service," "assisted service," and "full service" begin to blur.

What do we see in our self-service magic ball?

- Fueled by online communities and the increased availability of information, customers demand that businesses meet them anywhere, anytime, on their channel of choice. That may be on the phone, via text message, IM, at a grocery store checkout, or on a social networking site like Facebook ([News - Alert](#)) or Second Life. The availability of these additional channels will prompt opportunities for proactive outbound contact, as well as new self-service capabilities.
- Self-service is also becoming an important component of customer segmentation and customer choice in terms of level of engagement with a company. And I'm not talking about charging \$15 to speak with an agent or punishing customers who don't do a lot of business with you, but different levels of service clearly based on customer selected price-points and relationships. Successful companies will be the ones that are able to clearly communicate costs and benefits for different levels of service, whether it's live assistance, self-service, or partial automation.
- For IVR self-service, we see the migration from touch-tone to speech accelerating, and we expect that most companies will deploy speech recognition within five years. The improvement in capabilities, implementation cycles, and cost will significantly increase the range of applications for which speech makes sense.
- On the web, dynamic web 2.0 interactions mean that virtual user communities will more fully address service needs. These may be communities such as Second Life or MySpace, or company sponsored or owned communities (Communispace, Dell's ([News - Alert](#)) Ideastorm, Qtopia).
- We also see more use of partial automation that leverages the unique skills of agents combined with self-service. On the web, companies will deploy chat and talk in *strategic* ways that either help close a sale or build customer loyalty. With IVR self-service, this may mean pre-qualifying a new customer using automation, or gathering new customer information (address, phone, etc.) before transferring the caller and a screen pop to an agent.
- We also see increased availability of self-service interactions. This ubiquity may mean that cable companies, utilities and others partner with banks for bill payment via ATM or that consumers can do much more than just buy groceries at a self-service checkout. These types of customer lifestyle stations will enable consumers to complete a number of tasks at a single place.
- Finally, we believe that Unified Communications (UC) will open a new era of corporate transparency to customers, enabling us to better meet customers where they are. For self-service, we see opportunities to establish portals that enable customers to directly interact with the company. This can include delivering customer-specific information or directly linking customers to specialists within the enterprise.

**Looking three to five years out, I think we'll see more changes in self-service that we're only beginning to think about today. Businesses have a lot of opportunities to interact with customers. And as more and more tools are available for us to reach out, the lines between "self-service," "assisted service," and "full service" begin to blur.**

### Getting It Right

I hope we've all learned from self-service failures of the past, which were driven by technology and by budget cutting that tried to move *all* contacts away from the contact center. Today's successful companies build customer contact strategies *first*, then design technology to support them in usable, customer-centric, and cost effective ways. Only then will self-service become not only transparent, but an integral part of our daily lives. **IT**

*Elaine Cascio is a Vice President at Vanguard Communications Corporation, a consulting firm that specializes in contact center processes, operations and technology. She heads Vanguard's self-service practice. Visit us at [www.vanguard.net](http://www.vanguard.net) or contact Elaine at [ecascio@vanguard.net](mailto:ecascio@vanguard.net).*





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Innovative Ideas from the "Internet Fax" Experts

# Vitelity Adds TeleFAX to Its VoIP Lineup

*By Richard "Zippy" Grigonis*

**V**itelity Communications has built one of America's largest wholesale VoIP networks for service providers worldwide. Vitelity's OnNet local number DID (Direct Inward Dial) service reaches 95 percent of U.S. calling areas with termination services covering destinations around the globe. Their toll-free origination service is offered from all U.S. states, Canada, Puerto Rico and the U.S. Virgin Islands. They deal only in the minutes of Tier 1 backbone providers. Among their many services, Vitelity is also certified to perform SMS/800 changes so that new numbers can be provisioned quickly and toll-free numbers can be moved to other carriers in case of a network outage.

More recently, Vitelity is venturing into the world of Internet Fax with their new TeleFAX service. This new product is also sold in a wholesale format where the provider creates an electronic fax service using Vitelity's platform. Service providers can purchase fax numbers (local or toll-free) and receive their faxes from Vitelity, which they then forward on to their customers, who will never know that Vitelity was the real provider. The end user buys the retail client product, which communicates with Vitelity's wholesale-based servers, and enables them to fax right from their desktops. TeleFAX numbers receive faxes directly into a personal inbox or they can be viewed online using a friendly customer-user portal, all for only \$2.99 a month and 3 cents a minute. TeleFAX services include email-to-fax, fax-to-email, logo upload capabilities and unbranded web access for resellers, who can also create a custom-branded TeleFAX portal for their customers. A separate email address can even be set up for each TeleFAX number.

"Our full API is used to install TeleFAX into the service provider infrastructure," says Christopher Hall, COO and Co-Founder of Vitelity. "Of course, if a company didn't want to deal with the API, we could offer them a fully-branded solution with their logos and domain name."

It's very costly for a service provider to start its own fax service, particularly if they are starting from scratch. Besides the need for software, the provider must also purchase the proper equipment. Since Vitelity's technology is proven, a provider who teams with Vitelity can have a robust fax solution live and sending faxes in a single day.

"A VoIP company could come to us and get thousands of fax numbers or toll-free numbers across the country and immediately sell fax service to their customers," says Hall. "Customers can download the files using our API and everything is delivered with great clarity over our 100 percent redundant network. Plus, our super-user-friendly control panel enables users to manage their account entirely online. Interestingly, we don't use the T.38 protocol for TeleFAX. It's all TDM [Time-Division Multiplexed]-based. We collect the faxes off of our PRI lines and our servers store them. When a customer wants to view their messages via the API, they can download their new messages almost instantly."

In previous years, Vitelity has done a lot of network "build-out." The Vitelity network interconnects to every major CLEC in the U.S. and they also team with the big carriers such as XO, MCI, Global Crossing ([News - Alert](#)) and Level 3, where they resell minutes on a wholesale basis. Vitelity has the largest network coverage of any provider with over 8000 rate centers including Des Moines, Iowa and Alaska. Their domestic service reaches from Puerto Rico to Hawaii and in places no other wholesale provider can reach. Whether you need services in a single market or you simply need coverage in all markets, Vitelity has you covered.

"We offer services that most other companies don't have," says Hall, "and our big push recently has been our fax product. There's really nobody else out there providing a full fax solution for providers and our prices are much lower than those of our competitors."

Vitelity also has a terrific user portal, using instant DID provisioning, with which none of their rivals have been able to compete. They keep more than 50,000 DIDs in stock at any one time and are able to deal with number porting extremely well. Vitelity often encounters companies whose previous provider went out of business, and in one day, they were able to port the subscriber numbers to the Vitelity system.

"Also consider that our average trouble ticket response time is just one hour," says Hall. "That's because our support staff is available 24 hours a day."

"Needless to say, we enjoy a very low amount of churn," says Hall. "Vitelity has never had a month where the revenue has decreased."

If you would like more information about Vitelity Communications ([News - Alert](#)) products and services, please visit them at [www.vitelity.com](http://www.vitelity.com) or call 888-898-4835. **IT**

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

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[www.tmcnet.com/2290.1](http://www.tmcnet.com/2290.1)

## Verizon Flex for Business Internet Enhances Productivity

Verizon ([News - Alert](#)) has announced a new service offering, Verizon Flex for Business Internet, which combines Verizon Wireless BroadbandAccess with Verizon's FiOS ([News - Alert](#)) Internet or high-speed Internet services at discounted prices. The solution will allow small businesses to bring together the best in-the-office and on-the-go broadband network with the Verizon Flex for Business Internet plan. The new service bundle discounts Verizon High Speed Internet or FiOS Internet for Business when combined with Verizon Wireless BroadbandAccess wireless Internet service. Prices start at \$95.98 per month.

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

[www.tmcnet.com/2291.1](http://www.tmcnet.com/2291.1)

## RCN Offers Hosted PBX Service

RCN Business Services has introduced a hosted PBX solution aimed at small and mid-sized businesses. The service features a Web portal where users can customize their features. In addition to caller ID, call waiting, and three-way calling, the service offers an auto-attendant function, simultaneous ring, find me-follow me and the ability to check voice messages using email or any phone. The service uses SIP trunking so customers can buy voice trunks one at a time. Remote offices can be connected four-digit dialing with calls at literally no cost, and lines can be added, dropped or reconfigured without the need for a technician to come to your office to reconfigure hardware.

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

[www.tmcnet.com/2292.1](http://www.tmcnet.com/2292.1)

## Toshiba Goes Big With New Strata CIX1200 IP Switch

Toshiba ([News - Alert](#)) has brought the capabilities and affordability of its Strata CIX line of IP-enabled switches to medium to large enterprises, and to contact centers, with its new Strata CIX1200. The Strata CIX1200 has nearly double the port capacity of the previous largest model, the Strata CIX670. Supporting up to 1,200 ports, it is designed for 200 to 1,000 users and delivers networked applications for as many as 128 sites. The CIX1200 can be customized using Toshiba's FeatureFlex adaptability tool, which allows enterprises to create user-definable and modified features, such as call processing, companywide, by department, or for individual users.

[www.telecom.toshiba.com](http://www.telecom.toshiba.com)

[www.tmcnet.com/2293.1](http://www.tmcnet.com/2293.1)

## Report: SMBs Ripe for Cyber Attacks

McAfee has released the results of a survey, which showed that small and medium-size businesses think their revenue is "too low to draw the attention of cyber criminals." However, according to McAfee, the possibility of cyber attacks is high among SMBs, since their cases are less likely to be brought to the attention of law enforcement organizations such as the FBI. McAfee said that it is vulnerability of these organizations, not the amount of wealth or data, which make them the easy target of attackers. The findings come from a survey conducted on 500 SMBs in the United States and Canada. Last year, McAfee conducted a similar survey on 600 SMBs in Europe and derived almost the same results. According to McAfee, there are approximately 7.4 million SMBs in North America, a significant figure to pull cyber criminals more towards them.

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

[www.tmcnet.com/2295.1](http://www.tmcnet.com/2295.1)

## TalkSwitch Upgrades VoIP Offering

TalkSwitch ([News - Alert](#)) has announced the release of TalkSwitch management software version 6.10. The free upgraded version is equipped with new call handling features, making TalkSwitch systems "more customizable," according to the company. In addition, this newest version is designed to simplify the installation of IP phones as well as add new diagnostic tools. The 6.10 version makes adding IP phones easy, as they can be automatically detected and configured by the system. Additionally, a firewall test can be conducted to ensure the network is optimized for VoIP calling, and this test can save "hours of troubleshooting" and offers benefits to do-it-yourself end-users, system administrators and installers. The new software allows for up to 100 system-wide speed dials as well as options such as a front desk or taxi service and new hunt group balancing and overflow that help ensure that the organization is efficiently using their PSTN and VoIP lines in harmony.

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



[www.tmcnet.com/2294.1](http://www.tmcnet.com/2294.1)

## Objectworld Welcomes New Unified Communications Bundle

Objectworld ([News - Alert](#)) Communications Corp., recently unveiled a new unified communications solution bundle. With the new solution, businesses can leverage the benefits of unified communications including e-mail, voicemail, messaging and fax capabilities accessible from one interface and from any device for as little as 7 cents per day per user. With Objectworld's UC Server Standard Edition, businesses can do away with VoIP to reap the productivity benefits of unified communications, saving their money by leveraging their existing PBX systems in the process, according to the company. However, if businesses want to upgrade their existing phone system, Objectworld UC Server SIP Edition can provide an end-to-end unified communications solution for only 37 cents per day, company officials say. The solution provides both software and new hardware such as third-party desktop phones, server hardware and gateways.

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

[www.tmcnet.com/2296.1](http://www.tmcnet.com/2296.1)

## AdventNet Intros New VoIP Monitoring Solution

AdventNet ([News - Alert](#)) Inc. announced that they're offering support for monitoring of H.323 protocol-based VoIP traffic with their recent release of VQManager 6.1. The ManageEngine VQManager is a VoIP monitoring software solution, equipped with monitoring, alerting, reporting and archiving functions to help keep the VoIP services up and optimized. VQManager 6.1 monitors VoIP environments that use SIP, Cisco SCCP, or H.323 protocols for call signaling and RTP or RTCP protocols for media transfer. Officials say that the software's call-centric approach to VoIP monitoring ensures every attempted call is kept track of. Also, it provides comprehensive insights on Answer to Seizure Ratio, VoIP traffic trends, call quality trends, bandwidth utilization and overall VoIP network health, according to the company. The updated version, VQManager 6.1, features support for the legacy H.323 protocol, ensuring coverage of VoIP equipment vendors and protocols, and also provides a single interface for complete VoIP network monitoring, company officials say.

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

[www.tmcnet.com/2297.1](http://www.tmcnet.com/2297.1)

### **Cablevision VoIP Product Surpasses 2 Million Lines**

This week, Cablevision announced that it's Optimum (News - Alert) Voice digital voice-over-cable service has surpassed a major milestone, and now has over 2 million phone lines in service. Joe Varello, Cablevision's vice president of digital voice product management, said that the response by residential and small business customers alike to the value, reliability and advanced features of Optimum Voice has been "extraordinary." Cablevision provides small and medium-sized business customers up to 12 lines of Optimum Voice and up to four lines for residential customers. The service includes unlimited flat-rate calling across the United States, Canada and Puerto Rico, as well as advanced calling features such as call waiting, caller ID, enhanced voicemail, call forwarding and directory assistance.

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

### **Cable, Broadband, Wireless Capture Canadian Market Share: CRTC**

A new study by the Canadian Radio-television and Telecommunications Commission (CRTC), its first ever Communications Monitoring Report, revealed that cable companies have emerged as major competitors to Canada's traditional telcos for local telephone and high-speed Internet services to residential consumers with voice over IP and data services. Cable firms had captured 17.9 percent of residential local exchange lines in 2007, up from 12.3 percent in 2006. They increased the number of their lines by 759,000 whereas the incumbent telcos saw a decline of 772,000 lines. Not surprisingly, traditional telcos' share of local and access revenues dropped to 86.1 percent from 87.7 percent in 2006. Cable companies also have taken on the Bells in the wireless market. These firms and other alternative service providers hold a 40 percent share of subscribers.

[www.crtc.gc.ca](http://www.crtc.gc.ca)

[www.tmcnet.com/2298.1](http://www.tmcnet.com/2298.1)

### **SimpleSignal Intros New Hosted VoIP Service**

SimpleSignal (News - Alert) revealed a new Unified Communications solution, "SimplyMobile," that is designed to deliver a voice-enabled messaging solution for

SMBs by combining feature-rich hosted PBX with hosted Microsoft Exchange 2007. The company has partnered with Chinook Hosting, a hosted solutions company, to provide the hosted Exchange services for SimplyMobile. SimplyMobile allows users to listen to their e-mails and manage calendar items in Microsoft Outlook using voice commands from any telephone, including mobile devices. As the e-mail and voice services are hosted with the new integrated solution end-users can focus on managing their business instead of investing their valuable time in managing their communications infrastructure. The solution can also translate e-mails from text to speech and allows users to call Outlook contacts via voice commands on a mobile phone. SimpleSignal is offering the solution at \$59.95 per user per month, including Hosted Exchange 2007 with 2 gigabytes of storage and an unlimited North American calling plan.

[www.tmcnet.com/2299.1](http://www.tmcnet.com/2299.1)

### **VoIP, HDTV Provider SureWest Brings WealthTV to Kansas City**



WealthTV has signed an agreement with SureWest Communications (News - Alert) to bring its luxury lifestyle and entertainment programming to SureWest customers in the Kansas City region. SureWest is expected to feature WealthTV in digital and high-definition formats. With its own high-definition production studios, WealthTV will complement SureWest's channel lineup with original programming. Since late 2006, WealthTV has been available to SureWest video customers in Sacramento, California. In February, SureWest acquired Lenexa, Kansas-based Everest Broadband, and last month announced that it has started operating the Everest Broadband unit under the "SureWest" name.

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

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

[www.tmcnet.com/2300.1](http://www.tmcnet.com/2300.1)

### **Vonage to Offer New VoIP Service for Mobile Users**

Vonage (News - Alert) has announced the launch of a new mobile service

designed to allow people to use their home phone numbers and access the Internet from anywhere. Company officials say their so-called "Vonage Pro" service caters to customers with a wide variety of lifestyles and communications needs. The features, tagged together as "Vonage Companion," offers customers at a residential or home office user to access their home number from any desktop or laptop PC connected to a high speed Internet connection. The Companion also makes it so that incoming calls go to both the customer's home phone and the companion, and offers features specifically tailored for each user, such as selective call blocking, conference calling and call recording. The new service will cost \$35 per month plus taxes and fees. In addition to the Companion, Vonage Pro includes voicemail and contact center features, as well as transcription services that can transcribe a voicemail into a text-message, according to the company.

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

[www.tmcnet.com/2301.1](http://www.tmcnet.com/2301.1)

[www.tmcnet.com/2302.1](http://www.tmcnet.com/2302.1)

### **India Releases New Guidelines for 3G Spectrum**

The Indian Government has finally announced the much awaited broad guidelines for 3G (third generation) spectrum (News - Alert) auction in India. The new guidelines state that anybody holding a Unified Access Service License (UASL), or qualifying for an UASL in India and having relevant experience in 3G services, is eligible to participate in the bid. This plan clearly indicates entry to foreign bidders, which will facilitate in having a competitive 3G market in India. Raja clarified that the government is allotting spectrum in the 2.1GHz band for 3G services. Initially, the government would permit up to five operators which include a state carrier, but the bar could be raised up to ten in near future. The new guidelines indicate that the spectrum will be auctioned in blocks of 2x5 MHz, and the number of blocks to be auctioned will range from five to 10 based on the availability of spectrum in each service area.

[www.tmcnet.com/2303.1](http://www.tmcnet.com/2303.1)

## FCC Certifies Solectek's 3.65 GHz WiMAX System

The Federal Communications Commission has announced that it's certified Solectek's new WiMax (News - Alert) broadband wireless product line, operating in the newly created licensed 3.65 GHz frequency band for licensing to wireless ISPs and other enterprise users. Based on FCC (News - Alert) registration, the light licensing model allows for rapid deployment of networks and services for fast moving organizations, according to the company. The SkyWay-MAX 3.65 GHz product line is based on Solectek's 3.5 GHz WiMax product family and features what company officials call the industry's best price performance ratio. Eric Lee, chief executive officer of Solectek, said that his company wants to ensure it's providing cost-effective, high performance WiMax solutions for the independent ISP community. He said that WiMax architecture allows a new entrant to start small and build up their network as their business grows.

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

[www.tmcnet.com/2305.1](http://www.tmcnet.com/2305.1)

## LiMo Foundation Welcomes New Motorola Handset

LiMo Foundation (News - Alert), an industry consortium dedicated to creating an open, hardware-independent, Linux-based operating system for mobile devices, has reported the announcement by Motorola (News - Alert) Inc. of the release of a new handset, the Motorola ROKR EM30, using the LiMo operating system platform. The ROKR EM30 is a GSM quad-band phone, which features a music player. It is expected to be available first in Taiwan before reaching other markets later in the quarter. The phone is the eighth Motorola device using the LiMo platform. Recent announcements by Motorola and other handset manufacturers bring the total of handsets are now available with the LiMo platform installed to 22.

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

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



[www.tmcnet.com/2307.1](http://www.tmcnet.com/2307.1)

## TRENDnet Offers 300Mbps Dual Band Wireless N Gigabit Router

TRENDnet, a company that offers affordable networking solutions, has unveiled their latest product, the

300Mbps Dual Band Wireless N Gigabit Router, model TEW-672GR, which the company says has the capability to offer supreme wireless speed, coverage and reliability. The 300Mbps Dual Band Wireless N Gigabit Router supports the choice of using the 2.4GHz or the less crowded 5.0GHz radio band to optimize performance in high-interference wireless environments. Some of the significant features of this product include four Gigabit LAN ports on the back of the router, a Gigabit WAN port, which ensures the fastest possible connection to the Internet, and a double firewall using Network Address Translation (NAT) and Stateful Packet Inspection (SPI) protocols, which protect from Internet attacks.

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

[www.tmcnet.com/2304.1](http://www.tmcnet.com/2304.1)

## Fujitsu Global Mobile and III Address Taiwan's WiMAX Mobile Market

Fujitsu Global Mobile Platform Inc. (FMPI) and the Institute for Information Industry (News - Alert) (III) of Taiwan made a joint announcement that they will commence operations, which includes the development of reference designs by FMPI for WiMAX-related products. These designs will benefit Taiwan-based ODM vendors besides offering technical support. Reference designs for WiMAX-related products are necessary for shortening development cycles and streamlining a number of development processes for WiMAX-related products, such as WiMAX mobile devices and ultra-small base stations. FMPI will provide ODM vendors in Taiwan with reference designs for WiMAX-related products which are based on advanced WiMAX system-on-chip (SoC) solutions from Fujitsu Microelectronics Limited (FML) and software technologies from III.

<http://jp.fujitsu.com/group/fml/en/>

<http://www.iii.org.tw/english/>

[www.tmcnet.com/2308.1](http://www.tmcnet.com/2308.1)

## MicroStrategy Offers iPhone Users BI Reports and Dashboards

MicroStrategy (News - Alert), Inc., a global provider of business intelligence (BI) software, announced that its latest version of MicroStrategy 8 software offers interactive reporting and analysis

directly on the Apple iPhone (News - Alert). As per the offer, all five Styles of Business Intelligence supported by MicroStrategy are now available on the iPhone, including Scorecards and Dashboards, Enterprise Reporting, OLAP Analysis, Advanced and Predictive Analysis, and Alerts and Proactive Notification. The latest version of MicroStrategy 8 takes full advantage of the latest Web 2.0 technologies to provide a rich application interface between iPhone and MicroStrategy. Mobile BI users will now have seamless access to their data under this combined solution at their own convenience. iPhone users can view detailed operational reports, business charts and graphs, and user-friendly dashboards featuring key performance indicators (KPIs). The touchscreen interface in the iPhone enables users to interact with MicroStrategy reports and dashboards by intuitively sorting, pivoting, filtering, and drilling for greater insights.

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

[www.tmcnet.com/2306.1](http://www.tmcnet.com/2306.1)

## Sprint, Samsung Team to Expand Wireless Coverage with Femtocell Solutions

Sprint announced a partnership to expand the availability of wireless coverage, using femtocells from Samsung (News - Alert) via Sprint's (News - Alert) AIRAVE voice plan, designed to provide improved wireless coverage in homes and offices. The AIRAVE service will allow Sprint customers to use their existing phones, with an option to upgrade at any time. Calls initiated using an AIRAVE femtocell will transfer automatically to the Nationwide Sprint Network when customers move outside the AIRWAVE coverage area. AIRAVE service will include an optional, unlimited option for incoming and outgoing calls, and for nationwide long distance. The femtocell device is designed for easy installation by customers, using their existing broadband Internet connection and an AC power outlet. The AIRAVE is ready to use out of the box. AIRAVE will be sold at Sprint stores across the country for \$99.99.

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

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





## DEVELOPER

[www.tmcnet.com/2310.1](http://www.tmcnet.com/2310.1)

### Sun Microsystems Intros JavaFX Preview

Sun Microsystems ([News - Alert](#)) has announced the availability of its the JavaFX Preview release. Web scripters, designers and Java developers will finally get to see the runtime and tools required to create rich Internet applications (RIA) using this new Java platform. Developers can download the JavaFX Preview, explore the code samples and tutorials, start writing JavaFX applications, and provide their feedback to Sun. JavaFX is for the building of RIA for PCs, mobile devices, TVs and other consumer products. It allows developers to quickly and easily build high-impact, immersive RIAs that combine 2D and 3D graphics, high fidelity audio and video, and animation, all while leveraging the power and functionality of the existing Java platform. The JavaFX Preview release is designed to help early adopters become familiar with JavaFX and is not yet being offered for commercial applications.

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

[www.tmcnet.com/2311.1](http://www.tmcnet.com/2311.1)

### MontaVista Linux Offers Support for Cavium's OCTEON

MontaVista ([News - Alert](#)) Software, a provider of embedded Linux commercialization solutions, announced that its Linux Carrier Grade Edition (CGE) 5.0 now supports Cavium Networks ([News - Alert](#)) OCTEON CN58XX, CN56XX, CN52XX, CN50XX and CN38XX processor families. This support is designed to enable embedded developers to use the widely adopted MIPS64-based OCTEON architecture to create high-performance multicore applications that are multi-threaded and core-aware while delivering the interoperability, high availability, and field serviceability that carriers need. MontaVista CGE includes carrier-grade features and interoperates with industry software and hardware.

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

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

## SIP

[www.tmcnet.com/2312.1](http://www.tmcnet.com/2312.1)

### Toshiba, PAETEC Certify Interoperability of CPE and SIP Trunking

Toshiba's Strata CIX family of IP business communication systems has been

certified as interoperable with PAETEC's SIP Trunking services nationwide.

Rebecca Swensen, research analyst, VoIP services at IDC ([News - Alert](#)), explained that agreements between service providers and equipment manufacturers will increasingly become prevalent with the evolution of Enterprise SIP Solutions. She said that the PAETEC and Toshiba strategic relationship facilitates simplic-



ity, flexibility and the ability to customize solutions to fit customer needs. The alliance will also simplify the process of migrating enterprise customers to SIP solutions. Toshiba has also become a National Master Sales Agent for PAETEC, according to another announcement by the companies. This makes SIP Trunking services available across the country through Toshiba's national network of authorized dealers.

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

[www.telecom.toshiba.com](http://www.telecom.toshiba.com)

## IP CONTACT CENTER

[www.tmcnet.com/2313.1](http://www.tmcnet.com/2313.1)

### SAS Forms Profit Optimization Global Practice

As the economy is experiencing a continuing slump and competitive intensity increases in nearly all industries, new profit-optimization techniques are needed in order to ensure that a company can not only make money – but also that it can survive. Traditional practices are no longer adequate to ensure profitability and organizations are demanding change. To help enterprises ensure that they can maximize profitability, SAS ([News - Alert](#)), a major player in the area of business intelligence and analytics, has formed a new Profit Optimization Global Practice. This division will apply revenue-management techniques that are designed to help companies to optimize profitability through the use of advanced analytics to scientifically and proactively determine the most profitable market segments and prices.

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

[www.tmcnet.com/2314.1](http://www.tmcnet.com/2314.1)

### PCI Turns to Nortel for Latest Contact Center Deployment

PCI, a contact center outsourcing specialist, is building a new unified communications contact center facility in Melbourne, Australia. Using energy-efficient solutions from communications solution provider Nortel and Platinum nPower channel partner Commander, PCI will enjoy a state-of-the-art contact center that will be considered environmentally friendly. PCI delivers a range of contact center services for Australia and multinational clients, including telecoms, banking, information technology and utility companies. The organization is seeking to reduce its carbon footprint with Nortel's unified voice, data and wireless network at its Melbourne headquarters. According to PCI, the new 6,000 square meter Greenfield site will receive a new fully-IP-enabled network that will support 715 active agents and as many as 850 concurrent users. Such a system will allow for growth and expansion, providing the capability the company needs to meet a growing demand within the local industry.

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

## CHANNEL

[www.tmcnet.com/2315.1](http://www.tmcnet.com/2315.1)

### FreedomVOICE Now a Polycom Reseller for VoIP

FreedomVOICE Systems, a provider of virtual office solutions, has announced it has been certified as a Polycom

([News - Alert](#)) reseller for VoIP for its FreedomIQ VoIP Hosted PBX service. FreedomVOICE offers an extensive line of Polycom telephones, including the SoundPoint IP 330, 550, and 650 desktop phones and the SoundStation IP 4000 conference phone. "Polycom certification is part of our commitment to total customer support," said Eric Thomas, founder and CEO of FreedomVOICE. "When you call us with a problem, you never get referred out to a third party. We back up everything we sell, whether it's hardware or software. Polycom is our preferred vendor for our FreedomIQ VoIP Hosted PBX service," he added.

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

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



[www.tmcnet.com/2316.1](http://www.tmcnet.com/2316.1)**EMBARQ Releases Smart IP Enterprise, Includes TEM**

EMBARQ Business has introduced an innovative business communications product: "Smart IP Enterprise." The new solution offers businesses the convenience of an advanced communications system that includes EMBARQ Dedicated Internet Access, local and long distance voice service, and IP-enabled call management features. All of these benefits are offered to the customer without the large capital expense of purchasing and maintaining an on-site communications system. The EMBARQ Smart IP Enterprise is hosted in the EMBARQ network and is designed with features to help increase employee productivity and improve customer service. The solution is customizable to meet individual business needs to maximize the return on telecommunications spending. This latest solution also offers businesses EMBARQ Dedicated Internet Access, local and long distance voice service and IP-enabled call management features that will include incoming call routing, simultaneous ring to wireline and wireless phones and sequential ring to help reduce missed calls.

[www.embarq.com](http://www.embarq.com)[www.tmcnet.com/2317.1](http://www.tmcnet.com/2317.1)**BillSoft and CommSoft Partner to Provide Rating, Billing and Taxation**

BillSoft ([News - Alert](#)) and CommSoft have announced an agreement to collaborate on a joint solution. The resulting offering will allow customers to collect and calculate taxes using the newest technologies. This will help service providers faced with the challenge of creating provisioning for and calculating communications taxes. The integrated solution includes BillSoft's EZGeo ASP and EZTax and CommSoft's iCommVergence solutions to automate the complex process of calculating and billing for the ever-changing federal, state, county, city and special tax district rates and rules, for communications service providers. Shenandoah Telecommunications ([News - Alert](#)) Company (Shentel), which has adopted the solution, offers a comprehensive suite of voice, video and data communications services and was the first customer to go live with the combined solution.

[www.commssoft.net](http://www.commssoft.net)[www.billsoft.com](http://www.billsoft.com)[www.tmcnet.com/2318.1](http://www.tmcnet.com/2318.1)**Verizon's Free Billing Tool to Aid Customers Who Pay Online**

Verizon Business ([News - Alert](#)) has unveiled a Global Billing Report to provide multina-

tional businesses a consolidated view of their worldwide billing activity. The new tool is available at Verizon Enterprise Center. Verizon Business Center says it provides a number of tools and resources to help customers manage their enterprise accounts online. Global Billing Report is immediately available as a free tool for customers worldwide, according to the company. Currently the tool is being used by Verizon customers headquartered in Europe, Asia, and the United States. Global Billing Report helps companies view worldwide communication expenses online in both the original billed currency and another currency selected by the customer, said Verizon. According to Verizon Business, the Global Billing Report also combines billing data from domestic and international invoices into a group of summary reports. These reports give a detailed view of a service across the regions where the customer operates, company officials say.

[www.verizonbusiness.com](http://www.verizonbusiness.com)[www.tmcnet.com/2319.1](http://www.tmcnet.com/2319.1)**Telecom Companies Deploy HP's Real-time Charging Solution**

HP has announced four telecom operators that are transforming their traditional billing operations into real-time engines for growth with HP's charging technology. HP RealTime Charging allows for accurate, customer-centric pricing models that help telecom operators expand revenue with high-value services. The offering also helps operators develop competitive differentiation and enhance the customer experience. The telecom operators currently utilizing HP's RealTime Charging solution include: China Telecom ([News - Alert](#)), FASTWEB in Italy, VimpelCom in Russia, and Polkomtel in Poland. Based on industry standards, HP RealTime Charging is a highly scalable solution that is designed for high-performance transaction processing. With a flexible, modular architecture, it can be integrated with legacy billing infrastructures as well as newer networks and Internet Protocol Multimedia Subsystem (IMS) environments.

[www.hp.com](http://www.hp.com)[www.tmcnet.com/2329.1](http://www.tmcnet.com/2329.1)**Intec Completes Eco-Friendly Benchmark of Intec Convergent Billing Solution**

Intec ([News - Alert](#)) Telecom Systems has announced the successful completion of an "eco-friendly" performance benchmark of Intec Convergent Billing: the SingleView 6.01. This billing and customer care system uses a grid of Sun SPARC Enterprise Servers

with CoolThreads technology running the Solaris 10 Operating System (OS). This benchmark is considered to be a demonstration of the capability to distribute the award-winning charging, billing and customer care application across multiple low cost Sun Ultra SPARC processors while also sustaining outstanding price/performance. This configuration is considered to be ideal for telecommunications service providers who are seeking to significantly reduce their IT infrastructure costs and power requirements.

[www.intecbilling.com](http://www.intecbilling.com)[www.tmcnet.com/2320.1](http://www.tmcnet.com/2320.1)**RedRoller Launches Web-Based Package Shipping Solution for SMBs**

RedRoller, a Shipping Search Engine, announced that it's made available more powerful order history reporting in its Web-based package shipping solution for businesses. Small and medium-sized businesses want to reduce their package shipping costs due to the increase in the fuel and other costs, according to the company. Designed specifically for small businesses, RedRoller's solution compares service and associated cost levels of various carriers to save time and money as well as simplify the entire package shipping process, company officials say. Saying small businesses are getting hammered by rising fuel and other costs in today's economic environment, Michael Tribolet, chief executive officer of RedRoller said that his company's new reporting functionality is designed to help subscribers make better shipping decisions, further decrease shipping costs and increase profits.

[www.redroller.com](http://www.redroller.com)[www.tmcnet.com/2321.1](http://www.tmcnet.com/2321.1)**Tangoe Expands Managed Services Portfolio, Acquires Information Strategies Group**

Telecom expense management solutions provider Tangoe ([News - Alert](#)) announced that it has completed a transaction with Information Strategies Group (ISG), which will now operate as a division of Tangoe. The ISG acquisition enables Tangoe to expand its technology-based software and service solutions designed to help organizations to manage and control communications and IT technology resources and related expenditures. ISG's management expertise in billing, processes, international and domestic communications cost processing will enhance Tangoe's CommCare managed services offerings. The merger will help ISG's existing IT and telecom invoice processing customers by giving them access to Tangoe's wireless lifecycle management solutions.

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

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By: Al Subbloie



## What's All This Talk about Convergence?

If nobody has yet asked you about “convergence” (also referenced as FMC for Fixed Mobile Convergence) or “unified communications”, perhaps I can share some information on the current state of the industry to prepare you for the inevitable.

that you will have the flexibility to begin to implement unified communications when it makes sense for your organization. To that end, be mindful of maintaining flexibility in your wireline and wireless services agreements such that you won't be negatively impacted if there is a reduction in your need to purchase “minutes” from the providers. **IT**

My first point is that despite the “buzz” around the terms, the market does not appear to be in any rush to implement the vision. The largest reason may be that there isn't an evident Return on Investment (ROI). Even though the vendors would like you to believe that the nirvana of one phone number, one voicemail system, etc. will translate into major productivity gains, the reality is that the touted benefits probably aren't meaningful except to the most highly mobile users. Other reasons range from the fact that the majority of these services are still in their infancy to the fact that they bring wireless policy issues to the front burner. In a definition of convergence that translates into having one primary communications device, there is likely to be a cell phone that functions as an extension of the corporate PBX. As phones become available that offer both cellular and WiFi interfaces, the merger of business and personal use of the device is bound to grow. Given all the complications that privacy and security issues present in a non-converged environment, it is obvious that the move toward a single, primary device will only further complicate the situation and exacerbate the risks. Never to be underestimated is the consideration of what the carriers would like to happen when discussing the roll-out of new products and/or services. The migration of minutes from wireline and especially wireless provider networks onto an enterprise's wireless LAN (WLAN) translates to lost revenue for the providers. Note that most of the FMC project offerings from the providers do not offload voice minutes to a WiFi hotspot or enterprise WLAN. Several carriers including Verizon assert that they're working on a number of FMC products that will result in lost minutes for their networks, but the question is whether there is a rush to make such services available to the enterprise.

On the enterprise side is the challenge of ensuring that the WLAN has been optimized to carry voice rather than data. Class of service must be engineered to support the high level of quality for voice services users are accustomed to. And it would be remiss of me not to mention all the expensive desktop IP phones purchased in recent years with the rollout of IP telephony. These investments will not be written off casually. Even in new buildings, construction typically involves Ethernet cabling today, so wireless substitution in the near term is unlikely.

In conclusion, there needn't be concern around rushing to adopt FMC as of today. While each situation is admittedly unique, in today's environment you may not need to get past the ROI discussion before your boss loses interest. But it is always advisable to look ahead and make sure

Al Subbloie (News - Alert) is President, CEO & Founder of Tangoe ([www.tangoe.com](http://www.tangoe.com)).



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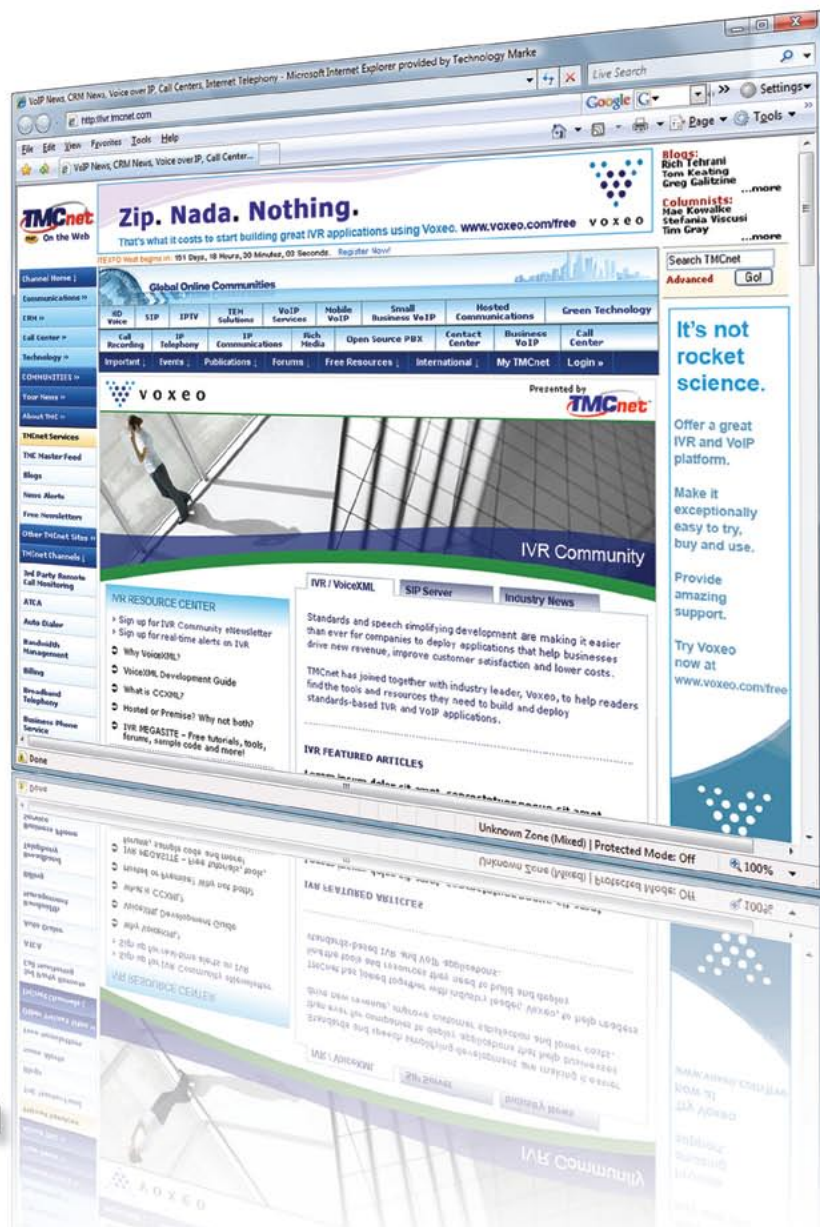


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# Allworx — Past, Present and Future

By Richard “Zippy” Grigonis

**M**agazine editors (even Executive ones such as Yours Truly) are often admonished by their superiors when even casually recommending a product to those inquiring readers actually interested in buying something. Nevertheless, in the telephony business, there have always been certain well-regarded systems that you could wholeheartedly endorse for an SMB (Small or Medium-sized Business) without thinking twice about it. For example, about 15 years ago — in the days when computer telephony was just getting up to full steam — a CPA and his associates asked me to recommend a phone system. My immediate, “knee-jerk” recommendation then was a Toshiba. If he had asked me in today’s era of the IP PBX, I would instantly say, “Allworx” ([News - Alert](#)).

The more any organization uses an Allworx — be it a 6x or 24x system — the more they realize what a great feature-rich buy it is, literally one of the best-bang-for-the-buck business communications systems anybody has seen over the past 10 years. Allworx is proof that accessing big-PBX functionality no longer requires a significant investment, nor a large IT staff.

Allworx’ hardware is further enhanced by its superlative software, enabling it to deliver a greater impact across the whole range of workflow activities with which various small businesses must grapple every day. Advanced features can be added to an Allworx system with the following optional software packages, each sold as a one-time licensing fee for an unlimited number of users:

- **Call Assistant** — Allows operators, receptionists or individual users (both local or remote) to monitor the state of every line in the system and to record and/or dispatch calls by answering, transferring, parking or sending to voicemail.
- **Call Queuing** — Software that can provide full statistics on the number of calls received, serviced, abandoned, exited and timed out for each queue. With some Allworx models (the 10x and 24x) this software allows up to 10 queues with 16 calls per queue, for a maximum of 32 callers across all queues. Moreover, individual phones can answer multiple queues.
- **Conference Calling** — Designed to handle an unlimited number of users, this package gives you the ability to set up new conference calls, authorize users to create new conference calls, access the conference interface via a dedicated Allworx portal, add conference center access via an auto-attendant, modify existing conferences, set secure ID and passwords and view all system-wide conference calls (as well as the caller participants and their caller ID).
- **Internet Call Access** — For sending and receiving Internet phone calls, this option can connect the Allworx system to an ITSP (Internet Telephony Service Provider) and supports site-to-site calling and a SIP gateway.
- **VPN** — The optional Virtual Private Network software package allows remote users (traveling or at home) access over a secure connection to your company’s intranet situated behind the Allworx firewall.



As Grant Johnson, Operations Manager of Lamborghini Orange County (the automaker’s Number 1 dealership in the U.S.), said to Yours Truly in 2007, “Allworx can tailor each system to do different things for different kinds of businesses. That’s one of the nice things about the company and this system. When we replaced our Toshiba phone system with an Allworx, we did much of the configuring ourselves under the auspices of our reseller. They helped us out with the initial programming and those kinds of things.”

Allworx Corp. ([www.allworxcorp.com](http://www.allworxcorp.com)) also has an excellent relationship with its resellers, which, as we shall see, help to drive the Allworx juggernaut. In addition to the Allworx Product division that develops phone and network systems for SMBs via authorized resellers, the Allworx Consulting Division delivers exceptional software and digital hardware engineering services to both large and small companies.

In October 2007, Allworx received a boost, both financial and technological, from its acquisition by PAETEC ([www.paetec.com](http://www.paetec.com)), a company that offers a suite of voice, data and IP services, as well as communications management software, network security solutions and managed services, to serve medium-sized and large businesses, enterprises and institutions across America.

On the eve of its 10th anniversary and its first anniversary with PAETEC, Allworx aficionados are curious as to how the integration and other matters are coming along. Moreover, the marketplace and even Allworx customers may not be fully aware of the origins of Allworx, its history and the corporate culture that has brought it to its current preeminent position. From startup to acquisition, Allworx has gone through a number of exciting changes. And what of the future?

Relax, this article will reveal the whole story.

As is the case with all great stories, we must start at the beginning...

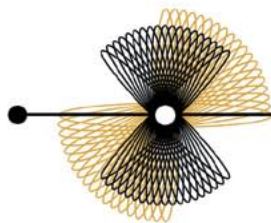
## From InSciTek to Allworx

In 1998, two engineering executives from Kodak and Xerox who had worked together since 1993 — George E. Daddis, Jr., Ph.D and Jeffrey Szczepanski ([News - Alert](#)) — decided that it was time to start their own company.



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On July 1, 1998, they officially founded InSciTek Microsystems, Inc. (the original name of Allworx) which offered outsourced engineering consulting services for a variety of companies situated around Rochester, New York, including Kodak, Xerox, R.F. Harris Corporation and other Fortune 1000 national and international companies such as Hewlett-Packard ([News - Alert](#)).

After the first six months, InSciTek had taken on more consulting challenges and started projects with more companies. Most of the staff had worked on the product side of various industries, so although they were consultants, they quickly realized that they wanted to get a product division up and running to help fund some of their resources.

The company now had about 15 employees and had quickly outgrown the key phone system that was part of their leased office space. Being engineers, they spent their off-hours pondering how to build a better communications 'box' for their own business. After some tinkering, they sensed a product opportunity and began to write a business plan to develop and manufacture a telecommunications system for small businesses.

The company early on realized that some of the things that they wanted to do with their system would be different from all of the other competing systems out there. They wanted to make sure that this would be a converged system that worked with both traditional TDM (Time Division Multiplexing) as well as an emerging technology of the time, Voice-over-IP (VoIP).

Over the course of about a year, through 1999, they put the business plan together and started designing what would ultimately become the renowned Allworx 10x IP PBX. From late 1999 to 2000, the development reached a crescendo and the company's product division infrastructure was starting to take shape with people who could then take these engineering schematics and source the device in the real world, comparing competitive costs, journeying around the world to compare overseas versus U.S. manufacturing. They also planned how to market the resulting product. Would it be for small and medium businesses? Could they reach SOHOs and even enterprises?

During 2000, they quickly realized that the device should be dedicated to serve the largest segment of businesses in America, the SMBs — a system that could handle up to 20 or 30 locations and 100 employees.

In April 2002, after 18 months and \$3 million in research and development, InSciTek Microsystems unveiled at New York's ITEC conference its first innovative office communications product — the Allworx 10x

plug-and-play, all-in-one system for phones, PC networks and team productivity.

Chris Talbot, Marketing and Business Development Manager at Allworx, says, "A lot of 'churning and burning' took place during the 2000-2003 timeframe. Allworx was working on market penetration, and the sales force had begun to form. We explored the idea of companies building our system and then looked at private labeling the box for other companies, but we figured out that it wouldn't work from a profitability standpoint. If you're not going to own the channel or the sales, or the strategy to market the product, then you've lost the heart of your business. Evaluations tend to be very low for simple outsource-type engineering firms, so we decided not to do it. At the other extreme, there was a period when we dabbled in selling the product directly to end users as well as resellers, but that led to too much channel conflict. All of these phases in our development were a very important learning experience for us, and the product did continue to get out there in users' hands. Allworx IP PBX prototypes fell into the hands of a few select users, who allowed us to develop some case studies and then refine the model so that when we went back to the market, we had a much better idea of what the end user needed."

"By 2003 we had a solidified management team in place as well as a winning sales channel strategy, wherein the product is sold via distribution to a reseller channel and not directly to consumers," says Talbot. "Also, Sandra M. Gault, at the time EVP of Marketing at Allworx, nailed down our marketing strategy as the leading vendor of voice and network solutions to the previously underserved SMB market, which represents nearly half of the business in the U.S. today. The strategy also involves showing how Allworx can 'future proof' your business with its flexible, scalable technology."

In 2003, after trials, InSciTek was now producing the Allworx brand of equipment. By September 2003, the magazine *Entrepreneur* had already observed that small businesses could recoup their purchase cost of an Allworx 10x and then "continue to save half the operational costs of discrete [i.e., multi-piece, separate-unit] solutions".

At this point the company split off into two segments, a framework that exists to this day. The first division is the original consulting division (now called the Allworx Consulting Division) with about 28 active top-tier software, hardware and electrical engineering consultants in the industry, working on defense contracts, nanotechnology and communications infrastructure projects, both from hardware and software perspectives. These people also work on their own proprietary projects, and obviously there is a

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great deal of 'cross-pollination' and ideation that flows from that group into the second corporate division, the Allworx Product Division, which has gone to market with the Allworx product line. Both groups 'encapsulate' Allworx.

Talbot elaborates: "When we at Allworx fully fleshed-out the initial 10x appliance, we decided it should be configurable as a full-blown IP PBX, a key system or a hybrid. Many use it as an IP PBX, but key systems can also have interesting functions such as the ability to place calls in 'parking orbits' where you can literally announce over the speakerphones things like, 'Hey Zippy, pick up extension 324!'. The Allworx 10x system can also be utilized strictly as a traditional TDM box or as a VoIP box employing SIP trunks, or as a hybrid of both. Such configurability and flexibility was a real breakthrough, a result of the kind of innovative thinking of which our engineers and consultants are capable."

By the time Yours Truly (the author) saw the Allworx 10x in late 2003, all of the technological, marketing and sales considerations had already been worked out. The product had been hammered into a refined, agile machine, a fabulous communications appliance that could be configured in real-time for whatever a company requires, and the initial groundwork had been laid for what would become the overall Allworx marketing and channel/sales strategies — a stratagem that has helped place Allworx equipment in 6,500 companies where more than 70,000 Allworx station sets are in use.

"The ground-breaking Allworx 10x communications system and the 9100 phone series [Models 9112 and 9102] were soon joined by the 6x 'Key System Killer' in February 2006 and the 24x in September 2006," says Talbot. "After InSciTek changed its name to Allworx Corporation in 2007, the 9200 phone series [Models 9212, 9202] and the Allworx Px 6/2 Expander were introduced in 2008. Incidentally, during this time the Product Division underwent tremendous expansion, posting record-setting growth on a year-over-year basis."

### Customer/Reseller Feedback Loops

Allworx equipment and software can evolve quickly because there is a short-cycle feedback loop from hands-on customers and resellers to the Allworx engineering team, who take ideas, modify the system quickly, perform testing and then roll out revisions. These qualitative improvement loops have succeeded brilliantly, even in very fast-paced environments and even when considering that both hardware and software may undergo revision.

As Talbot explains, "The reason we had the ability to quickly re-engineer our hardware was that,

once we had some of the chassis built, it was a simple matter for the engineers to go back and add or subtract components from our robust, flexible circuit boards as the need arose."

### Taking the Next Step with PAETEC

"We found that, as soon as we could land our product in the hands of resellers and end users, we got positive feedback," says Talbot. "But because we were a small company, it took us longer to get that initial acceptance curve going than if we had been a much larger, well-funded rollout. So, for the first few years of the company, we were overcoming funding resources. By 2007, Allworx wanted to take the next step. We were looking at some funding in the \$5 to \$9 million range, but we really wanted to put any funding issues completely behind us, and become aligned with a company that could take over those requirements, fund us for the life cycle of the company, as well as provide what we were looking for — a lot of additional value."

"PAETEC met those needs in spades," says Talbot. "First, our CFO, Chris Hasenauer, had worked for PAETEC as a VP of finance and had been involved in several of PAETEC's previous mergers and acquisitions. Second, PAETEC is geographically headquartered practically 'just down the street' from Allworx, so the issue of proximity was immediately taken off the table. Many Allworx employees were familiar with PAETEC, their product line and their management. Third, after our acquisition by PAETEC, they were able to come in and provide all of the necessary funding for an expansion of product development, marketing, as well as the sales channel. PAETEC essentially took care of the entire funding initiative, so that Chris Hasenauer and the entire Allworx finance team could go back and focus on further refinements, qualitative improvements and cost savings within the business."

### Tuning the Sales Channel

Allworx Director of Channel Sales Jason Beckett is responsible for the street-level sales of the product, in the process fathoming industry trends.

"I deal with all of the pain and joys of the resellers as they are out there selling our product," says Beckett. "I'm responsible for driving reseller recruitment and handling many of the large opportunities presented to us."

"The reseller model is changing," says Beckett. "Ironically, until now everybody has been talking about change except the resellers, but we're starting to see a whole new class of reseller coming into the SMB space. We've always adjusted and modified the product based on feedback from the channel and we're very responsive to specific situations that arise involving resellers. We have

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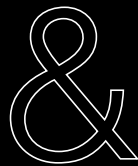
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ongoing weekly discussions from a product direction standpoint to try to bring the product more in line with real-world requirements. Allworx may be part of the huge PAETEC organization, but our division can still stay very close to resellers and we hear what they have to say.”

“Until about two years ago you had data VARs who ‘stuck their toe in the water’ by occasionally selling an IP system, and they were trying to figure out where it would fit into their business model,” says Beckett. “At the other end of the spectrum, TDM voice resellers were receiving requests for IP-based products, and we would fit the bill, but we weren’t getting 100 percent mindshare with those resellers. Now, however, there has been an evolution on both data and telephony sides, and true convergence. We deal more and more with established data VARs that commit full-time resources, both in terms of operations and sales, to selling IP systems. And the TDM guys are seeing their business shift from 10 percent IP and 90 percent TDM to 90 percent IP and 10 percent TDM. Several of our resellers have undergone this transformation.”

People have been saying, “You’re going to die if you don’t change.” In the past couple of years this message has gotten through to resellers, and they are changing.

From April 1, 2007 to December 31, 2007, Allworx galvanized resellers by conducting a Reseller Loyalty Program for all authorized resellers having achieved a required minimum sales volume in the previous quarter. “Allworx Loyalty Dollars” were earned based on a percentage of total Allworx purchases. Accrued Loyalty Dollars could be redeemed by Authorized Resellers to purchase free Allworx products, including systems, phones, software options, extended warranties, and technical training. Allworx also offered accelerators to provide an additional incentive to resellers to increase redeemable Loyalty rewards.

In June 2007, Allworx instituted two other impressive programs: A five-year extended warranty program for Allworx VoIP phones and VoIP systems — the most comprehensive warranty in the SMB marketplace — and a new Return Materials Authorization (RMA) process to simplify return requests and ensure a rapid turnaround on equipment replacements. The new Allworx RMA program provides resellers with multiple options for dealing with potentially defective products. Allworx’s new Advanced Replacement Process can ship replacement units to resellers before Allworx itself receives the item for repair. Resellers can place extended warranty and RMA orders through the Allworx Web Portal at [www.allworx.com/reseller/login.asp](http://www.allworx.com/reseller/login.asp). Aside from bridging all communications between Allworx and its partners, the portal also provides resellers with a

various marketing and sales collateral, as well as access to a live calendar of training events and Allworx-Partner events.

## Educating Resellers

As Yours Truly recalls from the great days of computer telephony (the 1990s) many resellers weren’t quite familiar with the technology, but that didn’t stop them trying to sell it. Educating the reseller to prevent disaster often turned out to be a major undertaking for vendors.

“Every manufacturer has their ‘problem children’, who install something and then figure out how it works,” says Beckett. “Any vendor who tells you they don’t have that issue is avoiding the truth.”

“We have an authorized reseller program,” says Beckett. “We’ve become more selective in terms of who we allow to sell the product. But we’re not really ‘elitist’ the way some other manufacturers are, because you have to remember that in our SMB space, there’s a much broader array of individuals who will likely come into the industry and will start selling IP-based solutions in a smaller environment, because there’s much less at risk. A new reseller arriving on the scene isn’t going to sell a 5,000-line university IP PBX; he’ll start small instead. In a sense, we’re the proving grounds for many of these resellers. And because our product is so easy to install and support, and because we have a high quality reseller touch program, they respond to that. Whenever resellers need help, we’re there for them. That’s been part of our formula for success.”

“There’s a fairly straightforward process for an Allworx reseller to come on board,” says Beckett. “Our key requirement is that we require each reseller to be technically certified. They get the right to become technically certified after the purchase of a demo kit and the signing of a reseller agreement. Currently, most of the technical training consists of hands-on classroom training with a couple days’ worth of going through the product configuration and all that. With the next software release, we’ll be shifting to a hybrid model of web-based training and some hands-on classroom training, because we do believe that there’s no better way to train somebody on how to install your product than to bring them into a room, break the product and teach them how to fix it.”

Beckett adds, “Many resellers emerge from our technical training class, telling us that this was the best training class they’ve ever had because we don’t just focus on the product and how to program it, but we also spend a lot of time training these resellers on how to install it onto a network, and how to handle the issues that they come across when installing a system. We give resellers as much knowledge as we possibly can so that they know how to troubleshoot

issues when they do come up. We’ve invested a tremendous amount of money in educating resellers and we’ll continue to do so.”

“Once resellers know what they’re doing, they start to scrutinize margins,” says Beckett. “Resellers seek generous sales margins, and the margins we offer are up to about 50 points. That was part of our strategy from the very beginning. We decided we couldn’t enter the market with five or eight points of margin, and then say to the reseller, ‘This is the best you can expect’. Part of our popularity results from our healthy margins and the protection of those margins.”

## Reseller Trends

“Several trends have emerged among resellers,” says Beckett. “First of all, there’s been a great deal of networking among resellers. Take Brembo Brakes, for example, the high-end, exotic car brake manufacturer. They have distribution facilities in southern California and Florida. The California reseller worked with the Florida reseller — we equipped a multisite Allworx environment connecting those two locations, since they network with each other. We’re seeing more of these kinds of scenarios.”

“Another trend is that more managed service packages are being offered with Allworx equipment,” says Beckett. “That to me is really the ‘golden goose’, because we’ve been training our resellers not to sell our system as they would an old TDM-based PBX, where they go in, sign a contract, get 50 percent down and 50 percent upon completion of the installation, provide 30 days’ worth of free programming, and then they never hear from the end user again. Instead, resellers now deal with one of their existing LAN networking customers, or an existing telco network customer, offering a suite of services to the end user.”

Beckett continues: “After all, it’s easier to approach a company and say, ‘I already take care of your network and I’ve noticed that you’ve got a 10-year-old key system, and I’d like to talk to you about upgrading it to an IP PBX. We’ll roll it all into your existing managed services plan for your LAN.’ With that, the reseller can turn around and instead of selling the end user \$10,000 worth of hardware, he can sell \$20,000 worth of gear and then he can wrap it all around a single managed services plan to take care of everything on the network and the Allworx box. Now he’s getting \$500 a month from the end user instead of a \$250 a month maintenance contract. Indeed, many of our VARs have doubled their business without adding a single new customer, simply by being able to sell more stuff to their existing customers. That’s something I had never seen until now.”



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"Being immersed in this business, we often forget that the average end user tends to be absolutely overwhelmed by the available choices," says Beckett. "When confused, they typically look for somebody who they trust to take care of them. They would rather deal with one entity that can handle all of that for them, rather than have to try to figure out many little things on their own. We're seeing that caliber of reseller going into companies, selling and building their business. They're coming at us from all different directions, but they're all coming to the same conclusion, because that's how they're all going to be successful. More complex solutions require more 'hand-holding' of end users, and that in turn translates into more money to be made. With margins, you have to look at the margins of what it costs to buy and what it costs to install. But then a reseller must consider how to make money on an ongoing basis. Most resellers are good at the former, but not the latter. In combination with teaching resellers IP technology, we also have to teach them how to run their business as a managed services business. The combination of those two things is what brings them profitability. They can't do one without the other."

"One key thing we've seen is that all the resellers are focused on how they're going to make money in this 'new world order', and managed services is the way that our resellers are being successful selling and supporting Allworx systems," says Beckett. "The use a hybrid approach to managing their LAN, phones, and so forth, and put it all under a single service umbrella. That to me is the 'magic bullet'. It's not easy to do. It's a major investment by many resellers to develop a program like that. But those who do it are the ones who have figured out how to make money in this industry. That's where our end user referrals come from."

## PAETEC and the Channel

One of the most important enhancements resulting from the PAETEC acquisition has been to the sales channel. Not only does PAETEC have a direct channel; i.e., 400 account managers' feet-on-the-street — it also has an account development staff and various base management people.

"PAETEC has an incredible, sophisticated channel dedicated to selling their products directly, and they have a very sophisticated agent channel and a very well-defined wholesale channel," says Beckett. "We now have the opportunity not only to sell Allworx products direct through PAETEC, but we're also able to reach out to the entire PAETEC agent channel and put solutions together so that all of those agents can also be selling not only the PAETEC network but Allworx phone systems too."

Additionally, Allworx can now 'sit at the table'.

When PAETEC negotiates with ISTPs, CLECs, LECs and smaller web hosting companies, Allworx is now able to examine these opportunities and perhaps offer some strategic relationships through some of the wholesale channels.

"For example, we're now fully approved and certified with TelePacific Communications ([News - Alert](#))," says Beckett, "which has many customers in California and Nevada. The PAETEC wholesale group would sell to them, as well as other CLECs, so that brings other opportunities to the table too."

"As a result of the PAETEC acquisition, we're starting to see a breed of super-hybrid reseller who is providing them with data and voice networking services, and then layering on top of that the service provider network component," says Beckett. "Now the reseller can walk into the end user's premises and show the extensive list of everything he can do. A good example of that is a deal we're proposing in the U.S. Northwest — a nine-location, multisite deal with a financial services company. Their first years' savings accrued by installing an Allworx system, managing their network and reconfiguring their service provider network, will be over \$60,000, and that's just in network cost savings. Thus, the ROI on our box in this scenario is just a little over a year. The person who is smart enough to recognize the value of that is the kind of person we're encountering and they're having more and more success. We're not just dealing with 'hardware jockeys' anymore."

"The funny thing is, we're doing what was offered by telcos and interconnects 20 years ago," muses Beckett. "You used to call a guy from the telephone company and he met with you and would go through your network, equipment and requirements, and then you got one bill. It's almost as if the industry is coming full circle. I think part of PAETEC's overall strategy is to bring all of those components back together to the customer as it used be in the good old days of 'one-stop shopping'."

## The Allworx / PAETEC Synergy ([News - Alert](#))

By 2007 Allworx had products that uniquely enabled its channel. Allworx systems combine features and functionality in a way that is easily deployable by the existing reseller channel. By taking the product down a notch in terms of complexity of installation, resellers familiar with how to install classic key systems (with a modest amount of training and support) are able to deploy Allworx quickly and organizations can immediately enjoy the feature set that best serves the small business and its operational workflow.

As an independent company successfully

pursuing the VoIP business, Allworx, despite its great success, ultimately found one 'fly in the ointment'. Although Allworx had a specific focus to integrate its systems as tightly as possible with many different service providers, the providers tended to have their own view of what they were doing with the technology, and Allworx had its own take on what it was doing with its products and customers in the marketplace. A perfect integration with a provider was hard to come by.

As Jeff Szczepanski, CTO and Co-Founder of Allworx says, "The only thing we didn't have under our control until now was the network integration aspect of it. It wasn't a technical problem; it was more of a business relationship issue. We had to deal with both up-and-coming VoIP service providers as well as major telco players in the telephony long-haul market who were getting involved with VoIP. On the one hand, they want to drive the new technology and not lose customers, but on the other hand, they don't want to eat away at their primary TDM customer base."

Szczepanski elaborates: "We finally reached a point where, looking forward, we needed to pursue one of three alternatives: buy a service provider company, sell our company to a service provider or actually create a new service under the Allworx brand. This conundrum was solved with our acquisition by PAETEC in 2007. PAETEC had merged with U.S. LEC in 2006 and acquired McLeodUSA in 2008, thereby creating a national carrier and a major alternative to ILECs [Incumbent Local Exchange Carriers]. The McLeodUSA acquisition happened to occur in parallel with the Allworx acquisition and the PAETEC / McLeodUSA customer base is now being targeted by Allworx."

"PAETEC, as a CLEC, is uniquely positioned in the market," says Szczepanski. "The way they were pursuing customers in the market was synergistic with what Allworx was trying to do. If you look at Allworx and PAETEC together, there is no inherent conflict regarding any existing customer base, but there is great synergy in what they do in terms of customer relationships and what we do in terms of channel relationships. Our capabilities come together and complement each other in a really nice way."

"With the PAETEC acquisition, we expected and got a great relationship, given both their excellent geographic location near our headquarters in Rochester, New York, and their terrific mix of people and corporate culture that we felt would fit with the Allworx organization," says Szczepanski. "In October 2007 the deal closed, and we've been feverishly working to move forward. Things are going really well as we identify opportunities served by our advancing strategic technical fronts of providing an even more complete, turnkey,

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network service provider and VoIP equipment solution to our customers.”

“A typical PAETEC customer and a large Allworx customer has up to about two T1s or its bandwidth equivalent,” says Szczepanski. “So many of our customers have similar communications needs. PAETEC has customers with satellite offices and small offices and Allworx can sell them a very competitive turnkey solution. So looking forward, we’ll be concentrating on two activities: continuing to cultivate and drive a complete, easy-to-install, turnkey solution for the classic small business customer, and being able to work better and formulate a more complete version of the Allworx products positioned to serve even larger enterprise PAETEC customers.”

“I’ve always felt that if you really want to go after the enterprise customer, first there’s the issue of capacity supported by the hardware switch, and Moore’s Law is making that easy and straightforward to up scale systems from a straight functionality standpoint,” says Szczepanski. “But what’s often missing in serving very large customers is the huge feature set and other ancillary and ‘surround stuff’ services. Given the continuously improving state of technology, it would be relatively easy for Allworx to ramp up to serve larger enterprises. Of course, it’s not just a matter of technology. When we decided to expand our system’s capability from 100 to 150 users, we did it with a simple software release. There’s nothing in our system architecture to prevent us from expanding to 300 or 500 users or more and thus entering the enterprise space, other than a conscious decision not to do so.”

“Of course, any SMB customers over time could very well grow up to be an enterprise,” says Szczepanski. “Time after time you define the upper end of your product’s scalability, and then you get a company who buys into the product and they enjoy considerable growth and you don’t want to lose them as a customer because they’ve gone from a 300-phone installation to 3,000 phones. The temptation for any manufacturer has always been to continue to scale up their product, but one of our concerns is that diversifying resources to achieve that takes away from our core strategy, which is to be the easiest and simplest IP-based communications system to install in the SMB space. We believe the real market gains are in the SMB space.”

“So, for the present, Allworx will continue to invest and drive toward serving sites having up to 100 or 150 users,” says Szczepanski. “We’re not trying to be another Cisco Call Manager, where they have a huge feature set that gives more power to the enterprise, but also has an inherently more complicated installation and knowledge base that must be installed too. We apply the 80/20 rule

— 80 percent of businesses use about 20 percent of the possible features. Very large organizations may use all of them, but a large R&D investment is necessary to satisfy every possible unique functional requirement that an enterprise can dream up. By focusing on SMBs, we can sell an easy-to-deploy, cost-effective system.”

## Allworx, PAETEC and the Future

Allworx continues to advance with new features and ways of improving their systems’ integration capabilities, increasingly leveraging the resources and customer base of their parent company, PAETEC.

“In the past we had a relatively small team of engineers producing hardware and software,” says Szczepanski, “since it allows us to respond quickly to customer and reseller feedback. Now, following the PAETEC acquisition, we can make an even higher level of investment in our core technology. We’re now scaling up the organization from developing one hybrid platform at a time and

then one major software release at a time to where we can overlap and speed up both our hardware and software pipelines. We’re adding people to the team, and my challenge is to continue to scale that process up so that it doesn’t disrupt the current flow of development. Over the next 12 to 18 months, we’ll build out the pipelines so we can have two simultaneous hardware and two simultaneous software initiatives running at one time. That will increase the rate that we can ship both hardware and software solutions.”

“As I said, we have no plans to follow the ShoreTels or Nortels into the enterprise space, simply because the opportunity ‘cost’ for us is very high,” says Szczepanski. “However, PAETEC does have a presence in the enterprise space and we’ve already started to see their customers coming to us, asking, ‘We’ve been a loyal PAETEC customer for five years and I’d really like to discuss installing an Allworx solution for my application.’ But, interestingly, the requirements we see are not so much for huge installations as

## How Allworx Fits into the PAETEC Advanced Solutions Group

Allworx is one of the Advanced Solutions Group (ASG) subsidiaries of PAETEC. Jack Baron, President of ASG, leads all six of PAETEC’s subsidiaries, which provide products and services that complement PAETEC’s core data and voice offerings, and provide critical solutions for customers. PAETEC has several well-defined channels, and there are opportunities in all of them for Allworx (and vice versa).

One ASG component, PINNACLE Software ([www.pinnsoft.com](http://www.pinnsoft.com)), offers a structured progressive approach to implementing service lifecycle management, consolidating disparate operations and data into a comprehensive whole, providing value-added self-service to their customers, and automating the provisioning of PBX and carrier services, all with the PINNACLE Communication Management Suite. PINNACLE’s product is compliant with key IP telephony solutions from Avaya ([News - Alert](#)), one of the world’s leading providers of business communications applications, systems, and services.

Another major PAETEC ASG subsidiary is the Integrated Solutions ([News - Alert](#)) Group (ISG), which represents Avaya, Cisco and Allworx and handles installs and network management for complete VAR end-to-end connectivity on the WAN and LAN. To help customers even further, PAETEC’s Equipment for Services (EFS)

program, another ASG component, is a mechanism in which PAETEC subsidizes a customer’s cost for new equipment or software as part of a broader network services package. A business can use EFS to reduce or even eliminate the cost of upgrading their communications network.

Working together, ASG’s components form a whole greater than the sum of its parts, enabling greater ‘through-sales’ for the parent company. Allworx, for example, works with its ASG partners to pull more business through by leveraging all of the various business units. When PINNACLE Software solutions are sold, their staff is always assessing the customer’s other needs. Do they need a new phone system? Do they need a large web presence? Do they need disaster recovery? Is there a business continuity solution that can be implemented? Exploring these considerations can “pull” ancillary services and products through to a customer, such as those offered by Allworx, and/or the actual network management and installation of other network components that can be done by ISG.

Thus, an organization dealing with one PAETEC ASG subsidiary can ultimately benefit from the expertise and resources of the entire Advanced Solutions Group.

multisite environments. We recently inked a deal with a PAETEC MPLS-based customer having 56 locations across the U.S., but I wouldn't define them as an enterprise customer. Instead, I'd define them as a medium-sized, multisite PAETEC customer where our product happens to fit the bill."

"Thus, we'll be concentrating on multisite systems, since even small businesses are becoming more distributed and multisite-oriented," says Szczepanski. "These businesses are becoming more sophisticated, so we are also working on Class-of-Service capability, with more sophistication and service features to serve different types of users. We're encountering more MPLS networks engineered across multiple sites. Fortunately, our technology can simply ride over an MPLS network and provide the customer with a unified solution with no trouble at all. Our architecture lends itself to that type of customer, and, fortunately, the sophistication of our resellers is getting to the point where many are able to service and sup-

port larger multisite customers. For example, we have a customer who owns 12 John Deere franchises scattered across the Midwest, and one of our resellers services all of their telephony and data needs. He's able to successfully manage that size customer."

"In the near term, aside from software enhancements and complete multi-site convergence, you'll see a more robust phone product line from us, such as our new 9224 phone that will appear by the end of 2008," says Szczepanski. "We're adding more buttons and capabilities. We'll also be unveiling some new messaging technology this fall that will reposition the Allworx box."

"Allworx is also investigating a mobility convergence play for 2009," says Szczepanski. "We'll be readdressing our SMB base. Now that we offer all of the features SMBs need, we're now determining what else we can do to push the envelope forward and come out with new innovative solutions to enable people to fully energize their business."

Szczepanski concludes with, "We've also been working on something called Allworx University, which we'll tell the public about around November 2008."

## Onward to the Next Level

Allworx has come a long way and has a great deal to celebrate on its 10th anniversary. With its acquisition by PAETEC having brought into the picture increased funding and a great support structure, Allworx, already beautifully positioned for the SMB market and its resellers, is now poised to become America's premier SMB phone system. Within five years or so, Allworx will be the most recognized brand for phone systems.

And remember, you heard it here first. **IT**

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



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# Talking with Bruce Kaskey, OrecX

By: Richard “Zippy” Grigonis

**B**ruce Kaskey is Co-Founder of OrecX ([www.orecx.com](http://www.orecx.com)), makers of Oreka TR and other Oreka products, a line of modular, open source, cross-platform systems for the recording and retrieval of audio streams from SIP-based VoIP, TDM and sound devices. Kaskey has over 25 years of experience in technology product management, sales and marketing. Prior to OrecX, Kaskey worked was COO at Stevens Communications and a Senior Product Manager at Eastman Kodak ([News - Alert](#)). He graduated from Ithaca College and has an MBA from University of Pittsburgh, Katz School of Business.



**RG:** What are the advantages of making Oreka voice recording software an open source project?

**BK:** The major reason for making Oreka an open source project on SourceForge is allowing other developers the opportunity to work on the software and develop different applications that ultimately everyone can use. We have had 31,000 downloads of our open source version. We believe that the more people that see the code and play with the software the better the software will be in the long run. We also have a GPL license which does give us protection against a company taking our software and duplicating it for commercial use.

**RG:** Is the development cycle faster or slower than software development in-house?

**BK:** The development cycle is faster using the open source model because we get many more people using the software and tinkering with it than you would in house. Also because the code is open for all developers we also find out new ways and applications that if “in house” would not be developed. Thirdly the hardest part of development is hiring the right people and to do that it takes time and effort, which in the open source business model is not necessary.

Cost is the major factor. We can develop software faster and with less full-time people, which in turn allows us to sell the commercial version Oreka TR at a significantly lower price than the traditional proprietary vendors.

**RG:** How do you see the future of open source?

**BK:** Open Source projects are the future of software development. Bugs can be worked out faster, development time is faster, cost-

to-market is less expensive and ultimately it gives customers more choice on how they want to use software.

**RG:** Does your software interface with commercial call center software suites or other software?

**BK:** Our software is open, so in that sense we can integrate and interface with any software. Since our software is agnostic to the operating system, we can sit on any server with any type of operating system — this gives us even more flexibility when interfacing with call center software or CRM packages that call centers use. We passively record network traffic so we do not need to spend much effort in trying to integrate with other types of software that a call center would use. For example — if a customer wanted to record phone conversations and attach those calls to the CRM package they are using it would be very easy to develop a hook that did just that.

**RG:** Do you think you could have been as successful as a typical commercial software vendor? Or was that not a concern?

**BK:** We believe that one day all businesses will be able to afford voice recording. Due to our low operating costs, and the fact that we can enhance our products’ capabilities through the talent of programmers across the world without spending money on marketing or sales, we can deliver software at a low cost. We want to make voice recording so easy to buy and use that it becomes a business tool that anyone can utilize.

So to answer your question we do not want to be a typical commercial software vendor; we want to be different by allowing our clients and developers choices when they choose our software. **IT**



[www.tmcnet.com/2322.1](http://www.tmcnet.com/2322.1)

### Canadian Web Site Intros Open Source Browsing Tool for iPhone

411.ca announced that it's launched a new iPhone browsing tool in conjunction with Apple's iPhone 3G launch in Canada. The tool will allow iPhone and iPod Touch users to access local search functions on-the-go, according to 411.ca, a Canadian online search Web site. The company says it has more than 1.3 million businesses and has thousands of advertisers. Every month, 411.ca says, it helps around 2 million site visitors find content, detailed and accurate information about businesses and people across town or across the country quickly. Users can do the following on 411.ca with their iPhone: visit the company profile page; call the business directly without having to type in the number; visit the company's Web site; view a map and directions for the business.

[www.411.ca](http://www.411.ca)

[www.tmcnet.com/2324.1](http://www.tmcnet.com/2324.1)

### Open-Source Mobile App Helps iPhone Users Run Popular Sites

CellSpin ([News - Alert](#)), a company whose free mobile applications help users create and publish music, videos and photos announced that its mobile blogging software platform is being added to Apple's iPhone 2.0. Officials from CellSpin say they're the first to provide a secure, GUI-based mobile application for the iPhone that'll allow users to access their favorite networking, blogging or auction sites — such as MySpace, Facebook, Twitter, Pownce, Blogger, Picasa, Flickr, Live Journal, Live Spaces, TypePad and eBay ([News - Alert](#)) — at the same time. The free application can be found at <http://www.cellspin.net>, and at Apple App Stores under Social Networking. The software supports more than 300 handset models, including the Symbian ([News - Alert](#)), Palm OS and Blackberry operating systems, according to the company.

[www.cellspin.net](http://www.cellspin.net)

[www.tmcnet.com/2323.1](http://www.tmcnet.com/2323.1)

### Launchpad 2.0 Developers' Tool to Spur Open Source Project Collaboration

Seeking to improve the flexibility and

integration of the developer collaboration nexus, Canonical Inc. announced the release of Launchpad. With the tool, company officials say, users can integrate their standalone project infrastructure. As vibrant communities have sprung up around translation, quality assurance, development collaboration and user support, more than 7,000 projects have already surfaced on Launchpad. Launchpad helps to bring communities together as it is a hosting platform for free software. As it looks to make it as simple to collaborate within a project as it is to collaborate with other projects, it is distinguished from other project hosting facilities. For example, distributions can coordinate their bug work efficiently with upstream projects, company officials say. With Launchpad 2.0, this can be done irrespective of whether the project uses Launchpad or its own standalone bug tracker.

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

[www.tmcnet.com/2325.1](http://www.tmcnet.com/2325.1)

### OrecX Launches Open Source VoIP Recording

OrecX LLC, a purveyor of open source voice recording solutions, formally announced its Oreka Total Recording (TR) software solution. The solution takes advantage of open source to enable more efficient contact center deployments. According to the company, "Oreka TR allows organizations to comply with regulatory requirements and improve customer service by recording and retrieving phone calls without disrupting operations, exhausting annual budgets, or paying for extra implementation services that never get used." The Oreka solution offers several levels of recording capability including the ability to record all calls, or initiate on-demand or selective recording. Contact center managers have the option of listening in to live calls for the purposes of monitoring employees for training and the like.

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

[www.tmcnet.com/2326.1](http://www.tmcnet.com/2326.1)

### Openmoko Signs Koolu to Distribute FreeRunner Open Source Mobile Phone

Openmoko, a creator of the open mobile computing platform, has announced an agreement with Koolu to distribute the FreeRunner Open Source mobile phone in all of the Americas, the United Kingdom and the European Union



with plans to expand globally through local partners. Earlier, Openmoko opened the online store for purchase of the Openmoko Neo FreeRunner. The Openmoko Neo FreeRunner utilizes GNU/Linux and comes with core software for dialing, SMS and recording contacts. "We have moved beyond the early adopter stage and are now ready to release the next generation Neo FreeRunner to markets where we are seeing early traction," said Steve Mosher, vice president of marketing at Openmoko.

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

[www.tmcnet.com/2327.1](http://www.tmcnet.com/2327.1)

### Sangoma Designs Developer Network for Open Source Community

Sangoma Technologies ([News - Alert](#)) announced its new Developer Network for the open source community by offering VoIP developers the opportunity to interact with the people and companies who are interested in their services. Company officials said their company's Developer Network will serve as a platform for open source developers. In addition, the network is expected to provide the opportunity for developers to showcase their talents and skill sets among potential clients and employers. Also, with the help of the network, developers can share success stories about their applications and solutions. For enabling developers to create their profile, officials pointed out that each developer will have their own "unique" URL, and they can update their information quarterly. Moreover, developers will be able to access their information as needed to make updates, conduct searches, and showcase work, according to officials.

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

[www.tmcnet.com/2328.1](http://www.tmcnet.com/2328.1)

### Movial Joins Open Source Community for Mobile Devices

Finland-based Movial ([News - Alert](#)) says that it's joined a group of mobile businesses working on a Linux-based, open source handset software platform. Officials from the company say they're joining the LiMo Foundation, a consortium of more than 30 companies, because the pair share goals in developing open source technology. According to Tomi Rauste, president of creative technologies at Movial, the company is eager to contribute to the Linux mobile community's growth. "The goals of LiMo and those of Movial are in lock step," Rauste said, "to reduce complexity, development costs and fragmentation in the market while providing a richer mobile ecosystem through the contributions of leading industry partners."

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

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

Innovative Ideas from the “Service Blending” Experts

# Service Blending — Unlocking a New Wave of Innovation

By Mike Jones, AppTrigger

**E**ditor’s Note (Zippy Grigonis): It’s a rare occurrence when somebody comes along who can express a sophisticated idea better than we can. As it happens, Mike Jones, Sales Engineer at AppTrigger ([www.apptrigger.com](http://www.apptrigger.com)) is just such a person. Read the following and take heed...

Service Blending is the practice of taking more than one service and combining them to make something new. Services are typically deployed as discrete functions within a service provider network, such as SMS, voicemail, automated outbound calling, and pre-paid. These services are “discrete” because of the complexity of interworking the application with the network; overcoming this complexity is a leading cause of inefficiency in Telco networks.

What if these existing services could be unlocked and offered for free consumption to application developers? Applications are almost never universally adopted by every subscriber in a network, so there are opportunities to repackage one or more of these discrete functions into a new service that will be consumable by a new user. For instance, a mobile subscriber may only think of automated dialing as something a telemarketer would use. However, that same mobile subscriber may view an automated wake-up call service as a useful feature. This is just one simple example of how the same discrete network function can be blended with, let’s say, SMS to create a new service using piece parts already in a network.

As the blended services market continues to take shape, existing enhanced services are prime candidates for incremental innovation and ARPU enhancements. By leveraging the existing enhanced services and creating innovation “on top” of them, service providers complement an understood user experience while at the same time, enable an ecosystem to reinforce the first social network application, voice services.

Innovation comes into play for blending old with new. New services are created for NGN all the time, but how well do these applications work with the mainstay applications in the legacy network? Given that most NGN services duplicate the legacy networks’ core functions, it’s safe to assume that the new and the old interact very little or not at all. Which will be more profitable? Repackaging an existing service to address a new market aimed at revenue growth, or duplicating a service to the same market for some nominal cost savings?

An example of blended service innovation in the Telco market is the combining of “new” IT policy enforcement capabilities, such as web browser parental controls, with the “old” pre-paid application. This policy enforcement could be extended to control who, when, and

where phone calls can be made or received. The blending of these technologies is another clear example of how two disparate technologies can be brought together to create a product that is marketed to people from two separate demographics — voice and IT security.

The Telcos need a quick, efficient and cost effective solution that will unlock their services for the purpose of creating something new market and ARPU opportunity. A solution that will:

1. Protect the Telco by ensuring that their services operate independently from the underlying network.
2. Prevent vendor lock-in by opening up the core network services as building blocks for new applications.
3. Support Telco and IT technologies such as IN and Web Services for the cultivation of multiple ecosystems.
4. Create service building blocks from the old and new networks for rapid creation of innovative services.
5. Support the reliability and scalability required by large scale services.

Service Providers must protect their legacy network’s value and innovation potential by ensuring that their services can be offered independent of the underlying networks, and more importantly independent of the vendors enabling those networks. Service Providers who choose to open up their applications for mass consumption have the potential to open up new markets. By doing this, Telcos can avoid falling into the vendor lock-in trap, and ensure that their investments in new technologies achieve maximum ROI.

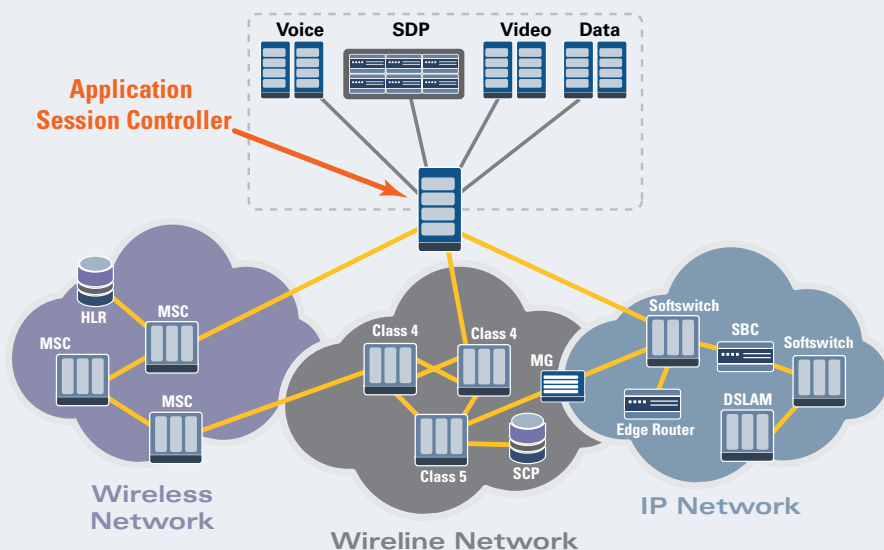
AppTrigger provides the key to unlocking this innovation via the industry’s first Application Session Controller (ASC). The ASC sits between the application layer and the core network to provide interworking and manage connectivity to the evolving network.

The ASC can connect any application to any user by incorporating a number of open standard APIs and is purpose-built to deliver the signalling, media and the feature interworking between disparate networks that converged and consolidated applications require. This functionality enables the ability to expose a “services kernel” of existing revenue producing applications facilitating innovation through a “blending” of services. The concept of a “ServiceBlender” provides the collaboration or glue between the legacy services and a delivery framework exposed to a developer ecosystem. The ecosystem is then immediately exposed to not only the legacy applications but the subscribers using those applications. **IT**

*Editor’s Note: It appears that AppTrigger and its unique network element, the Application Session Controller (ASC), can open the door to an exciting new world of blended services innovation.*

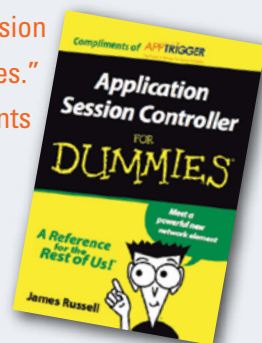
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# SIP and the Enterprise: Enabling UC and Delivering ROI

By Nicola Jackson

In today's tightening economy, enterprises across the country are evaluating their network solutions to make sure they are investing their money wisely. They are looking for ways to save money while enabling the applications that allow their companies to conduct business most efficiently. And many of these enterprises are coming to the same conclusion: SIP.

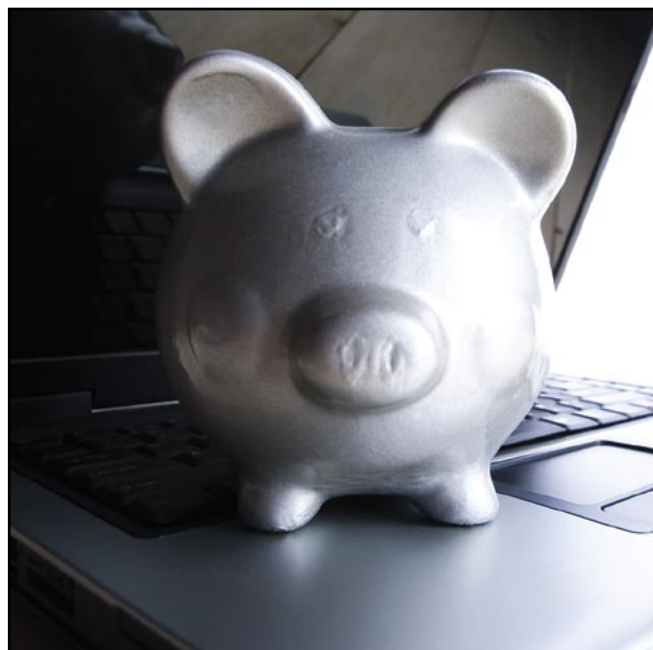
Session Initiation Protocol (SIP) has emerged as the leading signaling protocol for the efficient support of a host of network-based applications, including VoIP, conferencing, email, instant messaging, multi-media and others. As businesses look to implement these applications in order to enhance their performance, there is an increasing demand for SIP. According to Forrester ([News - Alert](#)) Research, more than 60 percent of North American enterprises plan to deploy SIP for site-to-site wide area networking in support of VoIP by 2010 (See Forrester Research, Enterprise Network and Telecommunications Survey, North America and Europe, Q1 2007). So what is SIP, what are its benefits and how do you know if it's right for your business?

SIP is an application layer protocol that simplifies the set up, modification and tear-down of communications sessions over an Internet Protocol network. SIP was designed to be independent of the underlying transport medium by putting control of the network into the edge devices. This is unique from other protocols such as SS7, which control calls to the devices from the inside out.

## SIP and Unified Communications

More recently, SIP has emerged as the preferred protocol for new and innovative types of communications, including the enablement of mobility, unified and presence-based communications. One area where SIP will have its greatest role is in Unified Communications (UC). There are many definitions of UC, and its use varies based on the needs of the user or enterprise. It's a productivity tool that brings together different communications platforms, leverages presence or the awareness of a person's location, and allows the user to set preferences for inbound and outbound communications. It integrates services such as fixed phone service, mobile phone service, conferencing, email, instant messaging, and fax.

With SIP, requests for session initiation are not sent to a device, but directly to the network. The network then locates the device based on the user's presence and then routes the call to the appropriate device. Therefore, it has the ability to lessen the dependence on multiple communications devices. Through UC, SIP has significant implications for radically transforming communications across the enterprise.



SIP also enables other capabilities for the enterprise, such as disaster recovery and extending presence. Because SIP auto-detects presence, it has an innate ability to reroute calls to alternate destinations in the event of outage, over-utilization, or other network-impacting event. In addition, SIP supports the concept of virtual numbers. As a result, it can enable businesses to expand their coverage area even before having a physical presence in a city.

## Realizing ROI

In terms of tangible benefits, SIP offers enterprises significant productivity enhancements and cost savings. Imagine the productivity gains to be had as a result of being able to do business anytime, anywhere, while minimizing the number of devices and mailboxes to manage and directing communications by location and status. Cost savings are recognizable in several ways. The most immediate cost savings are in the value of integrating voice and data communications over a single circuit. Leveraging dynamic bandwidth allocation to use bandwidth for data purposes while voice is idle can help reduce the total amount of bandwidth while maximizing the use of the bandwidth available. All of this translates into lower costs for the enterprise.

Yet another benefit of SIP is that it can be introduced gradually across the enterprise. A SIP implementation doesn't have to mean a rip and replace of existing technologies. A business with legacy digital TDM PBXs can utilize SIP as the underlying protocol without replacing the PBX. Also, SIP and UC can be added to a business incrementally.



## Introducing the **Video Compression Global Online Community**

With the adoption of high definition video, and the transformation of video from a static to a mobile medium, video compression is more important than ever. As new video solutions are developed, and as video is delivered to all three screens — TV, Web and mobile — new video compression technologies are required to ensure a compelling video experience for any video application anywhere.

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## Is SIP right for you?

It's clear that SIP can greatly improve an enterprise's network efficiency and provide significant cost savings. However, companies must weigh a number of variables when deciding when and how to deploy SIP. Each enterprise faces its own set of unique needs and hurdles. For example, a local consulting company with a mobile work force has a different set of problems than a national retail chain with locations across the country. Additionally, the choice to deploy a new IP-based PBX to enable SIP depends greatly on the particular situation of the business. If a PBX is right-sized and fairly current, it may not make sense to replace it. But if a business is outgrowing their current PBX, it may make sense to upgrade to an IP-enabled PBX in order to leverage the promise of SIP across the enterprise.

The decision to implement SIP cannot be made without understanding two key issues: interoperability and E911. While traditional signaling protocols like ISDN PRI have been around for 20 years or more and have matured significantly over time, SIP is still early in its adoption. Standards are emerging and

being adopted by hardware vendors and service providers alike. However, in order for a company to ensure a smooth transition to SIP, it is of critical importance to verify that a service provider has demonstrated compatibility between its network and the IP-PBX equipment being deployed. Additionally, the service provider must ensure E911 availability and correct routing for employees. In the world of SIP where trunks can be virtual, ensuring E911 effectiveness becomes much more complex. These two issues must be addressed by business thinking about converting to SIP.

SIP is an exciting signaling protocol that is receiving increasing attention from enterprises that want to implement new network-based applications and are looking for additional ways to cut costs and boost productivity. SIP will continue to grow in popularity as businesses turn to unified communications solutions and reevaluate their disaster-recovery plans. As with any major network upgrade, enterprises must be sure to address their particular needs and situation in order to ensure a smooth transition. **IT**

Nicola Jackson is Director of Product Management for Voice and Converged IP Services at XO Communications ([News - Alert](#)) ([www.xo.com](http://www.xo.com)).



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

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

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Innovative Ideas from the “High Availability Open Source Telephony” Experts

# Redfone Brings High Availability to Asterisk

*By Richard “Zippy” Grigonis*

**R**edfone Communications, LLC ([www.red-fone.com](http://www.red-fone.com)) was founded by people who had successfully used open source Asterisk-based Voice-over-IP (VoIP) technologies in their previous businesses. Immediately grasping the cost advantages and rich functionality of the immensely popular Asterisk software IP PBX, they realized that a business opportunity existed, and so Redfone was founded in 2003 to design, develop and deliver next-generation Asterisk-based communications solutions to small and mid-size businesses.

As Avionics engineers with considerable avionics data communications expertise, however, they realized that for mass implementation of Asterisk-based systems to succeed, major changes had to occur relating to hardware compatibility, scalability, and redundancy. Thus, Redfone Communications was reorganized in 2005 with the new mission of providing solutions to assist Asterisk developers and installers by extending the Linux concept of hardware independence. Redfone's first product, the foneBRIDGE, received immediate acclaim by both installers and industry analysts. Its latest incarnation, the foneBRIDGE2, is already used at hundreds of locations worldwide as part of various complex implementations including contact centers, financial institutions, emergency services, and inside telcos. There are even hundreds of enterprise-sized deployments.

Redfone's President, Mark Warren, says, “Until recently, it was difficult to find a truly fault tolerant, highly available open source telephony platform, especially from a PRI/TDM standpoint. Cumbersome, underpowered and expensive fault tolerant systems had long existed in the world of high-end, expensive PBX and computer telephony platforms, but in the open source world, a simple, cost-effective communications hardware device was pretty much non-existent. We at Redfone have met this need with our foneBRIDGE2, which enables IT managers and systems integrators to implement Asterisk® and even other open source software-based telephony platforms in demanding environments where downtime directly affects revenue.”

## In Search of High Availability (HA)

In a conventional Asterisk implementation, T1/E1 connectivity is provided by PCI based interface cards on a single server, thus making the server a single point of failure and reducing its overall integrity and availability. For many businesses, voice is a mission critical application and so placing it at risk is simply unacceptable.

“A number of open and commercial tool sets are available for building high availability, fault tolerant Linux clusters,” says Redfone's Mark Warren. “The general objective of deploying HA in a server environment is to provide reliability, availability, and serviceability [RAS]. As an externalized point of T1/E1 termination, the foneBRIDGE2 is decoupled from the single server limitation. When

combined with the proper tool set, the resulting implementation can provide rapid and automatic failover amongst a cluster of servers.”

Warren elaborates: “The most common toolset used to support HA when paired with the foneBRIDGE2 and Asterisk is the ‘heartbeat’ tool from the Linux-HA project [[www.linux-ha.org](http://www.linux-ha.org)]. As its name implies, the ‘heartbeat’ monitors the state of two or more nodes [servers] in an Asterisk cluster. If it detects a fault – when a primary node stops responding to the heartbeat messages, for example – it executes scripts enabling it to quickly failover to a secondary server. This process is transparent and occurs without user intervention.”

As opposed to human technician-guided troubleshooting and repair that can take minutes or even hours, foneBRIDGE2's rapid failover and system recovery takes place in seconds. The foneBRIDGE2 re-configuration options work rapidly, and the device can be re-programmed on-the-fly via high availability tools so that a TDM stream is immediately routed and calls to a secondary standby server occur in under one second.

“Add to that the minimal time the server takes to start Asterisk and clear circuit alarms, and a customer's stand-by server can be operational and handling voice calls in under three seconds,” beams Warren.

## Maintenance and Upgrades – Uptime and Scalability

Back in the day, your IT staff often had to bring down a server just to load a minor software patch or upgrade. With foneBRIDGE2, however, your server admin can manually failover to a back-up server and keep the voice system operating while performing upgrades or patching on the primary server.

“On a related note,” says Warren, “once connectivity is externalized in this way and not tied to any single server or PCI card – Ethernet is the only hardware requirement – then adding additional T1/E1 capacity to an Asterisk implementation is now simplified and requires little or no operations downtime. Thus, scalability is no longer a challenge.”

Redfone's foneBRIDGE2 is truly a flexible, ingenious device. It's an external device that installs on your network quickly, with no need to open up your server and install it inside your chassis. Moreover, it has a slew of absolutely unique features, such as rapid failover capability on an Asterisk/Trixbox cluster. It even supports “mixed-mode” operation support, so that T1, E1 and RBS/CAS services are configurable on a per-port basis. Best of all, foneBRIDGE2's price points are comparable to equivalent dual and quad-port PCI products. And if by chance you get confused, Redfone supports both Asterisk and trixbox users – everything from simple questions and configuration help to engineering consultation on the proper dimensioning and implementation of your systems.

Anyone serious about open source telephony should take a look at Redfone's products. **IT**



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# IP Contact Centers take the High Ground

By Richard “Zippy” Grigonis

The contact center is often the first – and sometimes only – face that your organization presents to the public. If your customer has a bad contact center-related experience and doesn't like it, then they don't like your company either (guilt by association and all that). The result: you've lost a would-be loyal customer. As they say, “You never get a second chance to make a first impression”. Fortunately, IP contact centers can boost first-call resolution to amazing levels. Moreover, contact centers have always clamored for new ways to interact with customers and collaborate with the rest of their organization, and IP enables all sorts of exciting multimedia linkages with customers as well as new ways of integrating with many back-office applications.

One of the earliest major call center players that ultimately took the plunge into the world of IP communications was Aspect Software. (Mike Sheridan of Aspect Software has a column elsewhere in this issue.) Also, throughout the 1990s, visitors to any telecom or computer telephony expo would inevitably see a crowd packed into the Interactive Intelligence booth, intensely viewing a presentation. Today, their powerful standards-based solution handles ACD (Automatic Call Distribution)-routed multimedia interactions, IP PBX functionality, IVR (Interactive Voice Response), speech recognition, web collaboration, remote agent support, screen and call recording, outbound dialing, reporting and voice and unified messaging. (See Tom Keating's review of Interactive Intelligence's ([News - Alert](#)) remarkable Vonexus ([News - Alert](#)) Enterprise Interaction Center 3.0 elsewhere in this issue.)

## A Touch of Mobility and Enterprise 2.0

Rather than maintaining a large customer premise infrastructure, many companies are opting for the very attractive scenarios of hosted and managed contact centers.

When it comes to hosted call centers, the name of CosmoCom ([News - Alert](#)) looms large. CosmoCall Universe is a universal access contact center platform designed for high capacity, high availability, and host-ability; and implemented on industry standard computing elements and Windows Server. The system is based on IP communication and open, standards-based interfaces. The software is written in C++ and is object-oriented. Inter-process communication enables a distributed architecture. Furthermore, Universe fully exploits the benefits of the Windows security model. Recently, CosmoCom released CosmoCall Universe Version 5.2, laden with various enhancements.

CosmoCom's Steve Kowarsky, Executive Vice President and Co-Founder of CosmoCom, says, “We have recently introduced a centralized agent configuration so that it's no longer up to each agent to configure their own options, parameters and so forth. The company's management now has much more control over that and can configure things centrally for all agents in terms of how to deal with client behaviors and permissions.”

“We've also added automatic voice quality monitoring and alerting,” says Kowarsky. “VoIP voice quality has improved greatly in recent years.



But when voice quality issues do occur, you want to be proactive — you want engineers to be able to spot problems before the users do. We can set SNMP traps to generate alerts to whoever is monitoring the platform when any voice quality problem indicator reaches a certain threshold and goes off, such as those for jitter, delay or lost packets.”

“CosmoCom has also done a lot in terms of integration with BroadSoft's platform,” says Kowarsky. “We have several customers that are very big on both CosmoCom and BroadSoft ([News - Alert](#)), notably some of the large European telcos. We have a really smooth and effective integration with BroadSoft, so a contact center agent can use a BroadSoft phone as their CosmoCom phone and they can also have a BroadSoft hosted IP PBX phone that's fully functional as well. The two systems essentially share information about the state and presence of each extension, which is also associated with the CosmoCall agent. Both systems ‘know’ when the extension is busy. So if BroadSoft wants to make a call, and CosmoCom is using the extension, the BroadSoft technology is aware of it. And if CosmoCom wants to extend the call, and the extension is busy on the BroadSoft side, the CosmoCom platform knows it, so that the agent state is updated and it tries for another agent. When you answer your BroadSoft phone, it answers in the agent client, and when you hang it up, it hangs up in the agent client. When you get a CosmoCom call on your BroadSoft phone the system automatically locks out the BroadSoft controls that are inappropriate or irrelevant.”

“We're working on an opportunity in Europe where about 14,000 BroadSoft-enabled extensions in a very large enterprise will all be CosmoCom-enabled as well,” beams Kowarsky. “The issues of scalability and performance under a very heavy load become important in such projects, which is why we've worked closely with BroadSoft to enhance those. Our BroadSoft integration is without a doubt the most advanced in the industry, both in terms of functionality and performance.”

“We have two agents, the installable executable and the pure browser-based agent,” says Kowarsky, “and both are now supported in Microsoft Vista.”

# Introducing The Telephony Hardware

## Online Community

PIKA Technologies provides developers the tools they need to build advanced voice and fax applications like IP PBX, fax broadcast and self-service IVR. PIKA's Telephony Hardware Community on TMCnet provides decision-makers from service providers and enterprise with important information on telephony boards, appliances, and Asterisk-based open source telephony solutions.

Whether building applications using board-based media processing or using host-based solutions, application developers of all kinds turn to PIKA for their development tools.



Visitors to the Telephony Hardware community can find valuable resources like:

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"CCU 5.2 has just been announced," says Kowarsky. "It has our latest big innovation, our configuration audit trail. The first thing you need to ask when troubleshooting a system is, 'What changed?'. If you can't determine that, then you've got to spend a lot of time crawling around and looking for something that must have changed. And even when you find it, more often than not you want to talk to the person who caused it. Learning from experience is important, and our system now tracks in a log every change related to the administration and other facets of the system configuration. You can see quickly exactly what changed and exactly who did it. It's a major new module of the system, that's fully integrated with our multi-tenant capability, which enables the service provider to use the system in a shared tenant environment. Each tenant has his own log of changes at the tenant level, and at the landlord level you have access to all the specific tenant logs, plus you have access to administrative and configuration changes at the landlord level."

"We'll be releasing CosmoGo in the near future, which will blaze a new trail in terms of adding mobility to the system," says Kowarsky. "We've learned a great deal about how to optimize communication with customers and what's important. First, it's important to be able to route calls intelligently, taking into consideration the skills required for the call and obviously the presence of the people that might be able to answer the call. Second, we've learned that it's a very good thing to present detailed caller information right along with the call, because it reduces the call time and it also makes the customer feel really good when the call gets a personalized answer and the caller learns that the person talking to him or her actually knows something about who he is and what's going on. That both shortens the call and enhances the customer experience."

"Third, if you enable the agent with inquiry and transaction capabilities likely to come up during the call, again, you can shorten the call's duration but make the customer experience a more satisfying one," says Kowarsky. "Forth and finally, if you wrap total management information and a QA [Quality Assurance] toolset around that, you can

create a lean, mean operation that achieves the goals you want to accomplish. All these things we've learned through the evolution of contact center technology."

"But there's been a huge limitation with all this up until now," says Kowarsky. "All of these benefits are available to people at fixed workstations with a phone and a PC. With our upcoming CosmoGo, all of those key customer communication optimizing points can now be brought to a mobile worker having a smartphone in his pocket and a Bluetooth headset on his ear. That's the whole kit. CosmoGo will provide all four of those key points: Full ACD routing capabilities, screen pop with caller information, the enablement of inquiry and transactions, and the whole reporting management QA infrastructure and control tools, all of that would be extended to people that have nothing but a smartphone in their pocket and tend to be mobile, who are an expanding part of the workforce. Thus, we can broaden the reach of the contact center and at the same time move in the direction of 'Enterprise 2.0', since those capabilities useful to people who are not part of an organization's full-time contact center-related staff."

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

Open Source Telephony is taking the world by storm.

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

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

The community showcases daily content updates highlighting:

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

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

**<http://asterisk.tmcnet.com>**



## Test for Success

Empirix ([News - Alert](#)) has long helped many organizations adopt complex contact centers and various other voice, data and VoIP applications and services, thanks to their advanced Hammer brand testing and monitoring solutions.

Empirix Senior Product Marketing Manager, Sue Anderson, says, "Overall, what we see from our customer base is that, when they're looking at new equipment, they're certainly having to go with an IP-based solution. For those companies looking to upgrade and replace existing equipment, they're accepting the new technology provided by their vendors. Aside from the technology part of it, we also find that some of the larger contact center-based organizations, such as financial companies, are pondering how they can improve their business operations when deploying IP in the contact center. For example, can they now virtualize their agents as a bank? Can they utilize branch managers and subject matter experts?"

Anderson continues, "Some of our customers are in the planning stages and are asking themselves, 'Okay, we have VoIP in the rest of our enterprise, but once we adopt this new technology in the contact center, how will it help us improve our business?'. So it's more than just a technology shift, it's a business shift. We also see in our customers a consolidation of their contact centers and therefore a consolidation of equipment. Since agents can be anywhere thanks to IP, all of the technology can be housed in the same location."

Brian Gollaher, Senior Product Manager at Empirix, says, "IP contact center technologies enable a foreign footprint for outsourcing, virtualization of agents, work-at-home agents, streamlined operations, and they hopefully provide a better customer experience through integrated CRM, CTI screen pops and other things that are better enabled in an IP environment. At the same time, equipment provid-

ers are making obsolete the older products. If you're building a new contact center, you're faced with IP technology."

Anderson adds, "Even so, our customers, being pragmatic, are making the transition at a somewhat slower pace because their concern over voice quality is such a big issue. We at Empirix have attended many events and call center shows this year. For example, we have partnerships with such major vendors as Avaya, Cisco, Genesys ([News - Alert](#)) and Nortel, and we attend many of their user group events. At these events we keep getting questions about monitoring and ensuring voice quality, which is obviously a huge issue for contact centers when they move to VoIP, and if they're installing things such as speech-enabled IVR, they must ensure that all of the technology is set up appropriately. They're also working very closely with their LAN people, vendors and providers to make sure that everything is set up properly to support both the technology and the highest possible voice quality."

Read this article in its entirety online at [www.tmcnet.com/2353.1](http://www.tmcnet.com/2353.1). **IT**

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

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

**ASC Telecom**  
[www.asctelecom.com](http://www.asctelecom.com)

**Aspect Software**  
[www.aspect.com](http://www.aspect.com)

**BroadSoft**  
[www.broadsoft.com](http://www.broadsoft.com)

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**Interactive Intelligence**  
[www.inin.com](http://www.inin.com)

**Mitel**  
[www.mitel.com](http://www.mitel.com)

**Verint Systems**  
<http://verint.com>

**West at Home**  
[www.westathome.com](http://www.westathome.com)

**Zeacom**  
[www.zeacom.com](http://www.zeacom.com)

## SIP Print Debuts at ITEXPO West 2008

The company SIP Print ([www.sipprint.com](http://www.sipprint.com)) launched at ITEXPO West 2008 in Los Angeles. It offers a new voice call recording product for VoIP/SIP telephones, Avaya IP office, Avaya distributed office, NEC 8100 and 8300 platforms, Allworx, Aastralink, 3Com ([News - Alert](#)), Toshiba, ShoreTel, Mitel, Nortel, Fonality and any SIP appliance and/or SIP interface-based telephone system. Unlike more expensive "per channel and per line" priced systems, SIP Print prices each system based on the specific manufacturer's platform. No added costs, no circuit boards, no hassle.

"As businesses struggle to comply with stricter federal and international regulations," says SIP Print President and Co-Founder Don Palmer, "having a complete record and recording of every phone call has become critical."

"One day I asked Jonathan Fuld — who ultimately became our CTO and Co-Founder — whether he knew of any pure SIP voice call recording platforms," says Palmer. "We couldn't find anybody who really did pure SIP or pure VoIP recording.

Many companies claim they do, but they tend to simply record the trunk lines coming in off of the PRI or even a regular POTS line, or they're recording off of the handsets with logger patches. I was talking about the appliances from companies such as Allworx, AastraLink, Altigen, Zultys, as well as peer VoIP systems where I wanted to record right off of the box. We decided there was a hole in the market."

"Jonathan got excited and within about four months he had written the code," says Palmer. "I named it SIP Print, because SIP is a major technology that will be going places over the next five years, and I had the marketing savvy to price it so that even small businesses can afford to buy it and use it to protect their company's financial integrity, resolve 'he-said-she-said' issues, and assist in training, quality assurance or casual call center situations."

Prospective dealers or distributors of SIP Print products and professional services can contact the company at [dealers@sipprint.com](mailto:dealers@sipprint.com).



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Ease of Installation



Voice Dialing



Voiceemail to  
E-mail Forwarding



Microsoft Outlook  
Integration



Incoming Call  
Notification



Calling over  
VoIP Lines



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# 7 Reasons Cbeyond's Channel Program is a Cut Above the Rest

by Richard "Zippy" Grigonis

**C**beyond ([News - Alert](#)) ([www.cbeyond.net](http://www.cbeyond.net)) made its name as a managed services provider of voice and broadband Internet services designed exclusively to serve the needs of small businesses. But few people realize much of its success results from an unparalleled channel partner program.

Cbeyond's Chief Marketing Officer, Brooks Robinson, says, "We have a robust Channel Partner Program at Cbeyond. There are seven reasons why we feel our Channel Partner Program is a cut above the rest."

## Simplicity of the Service Bundle

"Cbeyond is a managed IP-based services provider that provides small business customers with a very unique and innovative service called BeyondVoice®, which is a bundle of local, long-distance, broadband Internet and mobile services," says Robinson. "We keep the package very simple, thus enabling the channel partner to easily communicate and sell the package's value and the services we offer to their customers."

## Focus on Innovation

"Since our inception in 1999, we've focused on innovation," says Robinson. "We were the first to offer Voice-over-IP over a private managed network to the small business market, which ensures business-grade voice quality. We were an early provider of Mobile Virtual Network Operator (MVNO) service to the small business market, which marked the first time some of our VARs were able to offer mobile voice and data to their customers. We were among the first to drive significant numbers of productivity-enhancing applications to the small business market, today offering more than 30 applications that can be integrated into our service bundle." Such applications include fax-to-email, Hosted Microsoft Exchange and integrated voicemail.

## The SIPconnect Standard

"One of the founding tenets of Cbeyond is that we listen to our customers and our partners," explains Robinson. "A great example of that from the partner side occurred in 2004, when we listened to our partners as they described the real upside they saw in the new IP PBXs coming to market. Rather than competing against our channel partners, we decided to enlist the help of other industry-leaders to co-develop a service that really enabled them — the SIPconnect specification."

Cbeyond, Cisco and others formed a working group, which authored an overall specification for Session Initiated Protocol (SIP) trunking. This open-standards based approach has accelerated the rate of which innovation has occurred leveraging the SIPconnect standard. Customers can now interconnect leading IP PBXs and Cbeyond's BeyondVoice service via a SIP trunking services standard.

"BeyondVoice with SIPconnect, connects our managed VoIP network to these new IP PBXs, simplifying the installation and adding more features to the phone system," says Robinson. "It helps the channel partner with their core service offerings, which for many of them is the phone system and data equipment that gets installed on the customer premise. This was all made possible because of our very close relationships with our channel partners. Customers benefit from better voice quality, advanced calling features such as Direct Inward Dial, and lower up front installation costs."

## Established Partnerships


"We also focus on partnerships, which enables us to bring some very large brand names to the channel partner community, such as Microsoft, Cisco, and BlackBerry ([News - Alert](#))," says Robinson "The partnerships that Cbeyond has forged enable our channel partners to extend their product and service portfolios and bring these market-leading brands to their own customers."

## Generous Compensation Plans

Robinson continues: "As for what's in it for the channel partner — you can first look to the compensation and economics of Cbeyond's managed service combined with a next-generation IP PBX. Channel partners are compensated for selling and installing phone systems, but, additionally, by connecting those phone systems to the Cbeyond managed service, they receive a residual every month, for the lifetime of the customer. This significantly increases the value of the customer sale to the channel partner and in many instances can double the revenue they would typically make in hardware sales. Since Cbeyond also enjoys very high customer retention, the residual payments to our partners really begin to add up over time."

## Local Channel Manager Support and Training

"Additionally, we provide local channel manager support, which is an investment typically not made by other service providers in the SMB space," says Robinson. "In each of our local markets we have channel managers dedicated to helping our channel partners demonstrate the value of Cbeyond and mine their customer base. Our channel managers are very active in the community and serve as a great support infrastructure for the channel partner."



"We also provide a lot of great training for our channel partners," says Robinson. "The local Cbeyond channel managers work one-on-one with the channel partners and we hold quarterly 'lunch-and-learns' focusing on sales techniques and new application features and monthly technical sessions. Additionally, we hold monthly SIPconnect training courses in each market, which are Innovation Forums that allow channel partners to examine the industry's latest innovations, such as new technologies from IP PBX vendors."

## Extensive Marketing Support

"We offer extensive channel marketing support," says Robinson. "In addition to our channel marketing team dedicated to creating innovative programs specifically for Cbeyond partners, we've invested heavily in a new online portal called Cbeyond PartnerAccess ([www.cbeyondpartners.net](http://www.cbeyondpartners.net)). This site allows channel partners to download and customize collateral, find service information, register for the latest training classes and manage their customer account information. Our channel partners are able to go into Cbeyond PartnerAccess and view their individual compensation reports associated with their customer

accounts. It's gratifying to give them access to all of the information by simply clicking on a portal button."

"We are very channel-friendly," says Robinson. "The channel partner community is a great opportunity to grow both the Cbeyond business as well as the channel partner business through a combined offer of Cbeyond's managed services, plus customer premise equipment that the channel partner sells, installs and manages."

"Now, wrap all of this around the fact that we're focused solely on the small business market, one of the fastest-growing segments of the communications industry, and we drive bundled packages and innovation, developing great new applications designed specifically for small business," Robinson concludes. "The bottom line, we can be a great partner to any VARs interested in growing their revenues."

Cbeyond has proven that an extraordinary channel partner program is good for everybody — customers, partners and Cbeyond itself. It's an enviable model that the channel partner community is sure to embrace. **IT**

## Seven Things to Consider When Partnering with a Managed Services Provider

### What Resellers Need to Consider When Selecting a Partner

Selecting the communications services to resell and the long-term partnership behind this business arrangement is not a decision to be made lightly. The partners you choose could profoundly influence both the volume and quality of services your company will provide to your customers, thus impacting future revenue streams, customer loyalty and the value of your brand. With a number of communications providers, value added resellers (VARs) can have a difficult time identifying which providers are right for their business.

By partnering with most managed services providers (MSPs) resellers can immediately provide their customers with a services bundle that would otherwise require partnerships with multiple vendors. When comparing an MSP and a traditional vendor, resellers should consider several aspects of that service provider's business and your relationship with that partner. Seven key things to consider include:

**1. Quality of Service:** Does the provider offer a private managed network that will ensure quality of service and offer important features such as dynamic bandwidth allocation that can prioritize voice traffic over data traffic in a VoIP service implementation? Look out for "best efforts" providers who are routing voice traffic over the public Internet using a "bring your own bandwidth" model. They may bring competitive pricing to the table, but the trade-off on quality might not be worth the risk.

**2. Compensation:** Does the compensation from the service provider provide up-front honorariums as well as residual compen-

sation paid over the life-time of the customer at a percentage that grows the more business you bring to that partner?

**3. Competition:** Will your partner compete against you? Does the service provider sell hosted IP PBX services or PBX equipment that could cannibalize your sales by converting your customers to their offerings down the line?

**4. Robust Applications Bundle:** Does the service provider offer a growing list of applications, including mobile voice and data services that are truly integrated and sold as a bundle?

**5. Training, Tradeshow and Support:** Does the service provider offer training courses or allow their partners to participate in industry-related tradeshows that they sponsor? What type of marketing support can you expect?

**6. Partner Brands:** Does the partner leverage industry-leading brand names that legitimize their offering and make your sales process easier?

**7. Long-term Financial Health:** How strong is the service partner's financial viability? Do they have a healthy balance sheet with limited or zero debt? Are they growing? Are they profitable? Publicly traded?

By doing your due diligence up-front and rating your prospective managed services provider partnerships using these key criteria, you can make sure you are partnering with a company that can truly take your business to the next level and ensure you keep the customers you work so hard to acquire.



Innovative Ideas from the "Proactive Service Assurance" Experts

# Mu Dynamics Ensures Operators Remove Costly Problems, Limit IP Service Downtime

by Richard "Zippy" Grigonis

**M**u Dynamics ([www.mudynamics.com](http://www.mudynamics.com)) helps both network operators and product suppliers build and operate networks to ensure their IP services have minimal downtime. The new generation of IP services such as VoIP, IPTV and IMS rollouts must be robust, available and secure to minimize customer churn. To that end, Mu Dynamics offers the Mu-4000 Analyzer, an ingenious, highly flexible system that enables proactive service assurance.

The Mu-4000 automates the discovery, documentation and expedites the remediation of any reliability, availability or security weaknesses. For example, Mu methodically generates millions of variations of service level traffic to analyze the impact on IP-based networks, identifying any downtime-causing weaknesses in such next-gen services as VoIP, IPTV and IMS-based applications.

David Kresse, CEO of Mu Dynamics, says, "We ensure operator reliability, availability and security of IP services and applications. We know IP is here to stay — there are many associated benefits. Cost advantages exist for running applications and services over a shared infrastructure, as opposed to 'siloed' infrastructures. In addition, the ability/flexibility to roll out new applications and services quickly is important as a competitive advantage."

"However, IP has inherent challenges," says Kresse. "IP infrastructures are inherently complex and more fragile than the last generation of infrastructure. As a result, businesses need to think differently about their approach to the reliability, availability and security of IP applications and services. Mu offers operators and their vendors a new solution to uncover weaknesses that compromise the quality of their service or application before deployment. Essentially we're running lab-contained but real-life network service traffic. A customer can simulate what is going to happen once a service is deployed and proactively identify issues that cause service degradation or disruption. Given the costs associated with service disruption — customer churn, high volume of support calls, violated SLAs — the ability to find issues before they impact customers is of immense value. The ROI around deploying our solution is huge."

"We call our system a service analyzer," explains Kresse. "It consists of three different components: First of all, we can generate different kinds of simulated network traffic. For example, we can generate millions of variations of traffic around specific protocols used by services or applications. We also run simulations of known vulnerabilities as well as Denial-of-Service traffic profiles. Some customers use all three of these modules, others just use what they need. Although you're

working in a test environment, running our analyzer is like experiencing these situations in a live environment."

"Our analyzer's second major component comprises service-level monitors that carefully observe the services supported by the systems or device under test," says Kresse. "Basically, as the Mu system generates application traffic, monitors automatically correlate specific variations in that traffic that adversely compromise services."

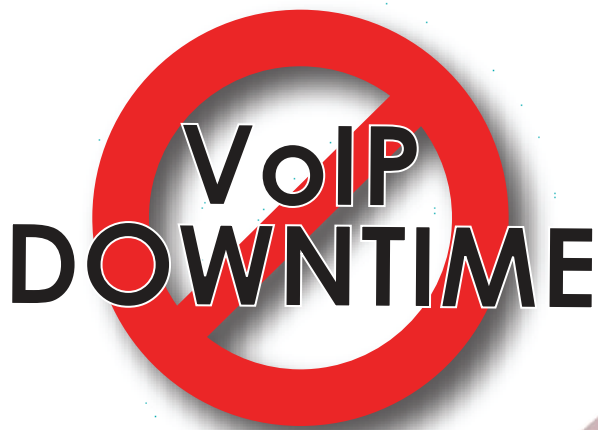
"The third major component is a correlation engine enabling our product to precisely pinpoint what specific aspect or variation of application traffic is at the root of service degradation or downtime," says Kresse. "It allows our carrier and cable operator customers — many of them are among the largest in the world today — to precisely identify the location of issues and to work with their vendors to remediate them before the services are deployed in their live network."

Kresse elaborates: "As Mu spoke to its 100+ customer deployments about how they deploy our equipment, the key insight we've gleaned from a business perspective is that, when you look at IP environments, a change has occurred. Before IP infrastructures became commonplace, customers had relatively homogenous infrastructures from a vendor standpoint — a few vendors per environment — and a very controlled number of dependencies and interactions occurring between different components in support of a given service — generally a dedicated service. In that era, functional and load testing effectively dealt with the limited problem scope. Today, operators deploy IP services within a highly heterogeneous infrastructure, with lots of different components interacting with one another to support multiple services. The idea that ensuring valid inputs result in valid outputs and everything is going to work well is only a piece of the puzzle."

Frequently in today's increasingly complex networks *unexpected* inputs or even just slightly malformed packets emanate from one application or product. The question becomes: How will other networked products within the overall application or content delivery network respond? Will they elegantly handle unexpected traffic or simply end up 'choking', possibly exposing potential product weakness like a CPU spike, buffer overflow or unacceptable product latency when exposed to such unexpected input? Mu methodically identifies these weaknesses before the live deployment of applications and services to save operators from experiencing costly downtime, customer churn or expensive brand damage.

In all, Mu Dynamics appears to have mastered an important new area of network and services analysis. Operators have a new way to ensure their services deliver as promised and to hold their vendors accountable. **IT**





## Mu Automates Removal of Disruptive Latency and Boosts Competitive Edge

Mu improves network operator service availability and reduces customer churn for VoIP and unified-communication services. More than 100 customer sites globally use Mu to automate their processes around the Service Assurance of next-generation IP services such as Voice over IP (VoIP). Operators and their suppliers depend on Mu to rapidly deploy revenue-generating VoIP services with the highest possible service availability and reliability levels.

**Find out more about Mu's VoIP solution at [www.mudynamics.com/voip](http://www.mudynamics.com/voip)**



# Review of the Vonexus Enterprise Interaction Center (EIC) 3.0 from Interactive Intelligence

By Tom Keating



**Interactive Intelligence Inc.**  
**7601 Interactive Way**  
**Indianapolis, IN 46278**  
**Phone and Fax: 317.872.3000**  
**Website: <http://www.inin.com/>**

**Price:** Vonexus EIC is priced per user or station. Average pricing is between \$500 and \$1,500 per business user/station, depending on functionality and system size. Pricing includes installation and hardware.

## RATINGS (0 — 5)

<b>Installation: 5</b>	<b>GUI: 5</b>
<b>Documentation: 5</b>	<b>Value: 4.5</b>
<b>Features: 5</b>	<b>Overall: A+</b>

Founded in 1994, Interactive Intelligence was at the forefront of the PC-PBX revolution offering a Windows-based phone system that the traditional PBX manufacturers said wasn't reliable since it ran on Windows. But Interactive Intelligence was the first PC-PBX vendor to prove them wrong. Additionally, Interactive Intelligence added unparalleled flexibility and integration with business applications since the PC-PBX sat on the local area network (LAN) negating the need for complex CTI (computer telephony integration). In fact, their platform pre-dated the next evolution from simply a PC-PBX to a full-fledged IP-PBX that completed the convergence of the phone network with the data network. Thus evolved their "all-in-one" IP communications software suite using industry standards such as SIP, all on a single-platform architecture that can handle multi-channel communications. They were also the first to offer a 100 percent software-based IP-PBX. It is with this historical background in mind that TMC Labs decided to take another look at one of Interactive Intelligence's solutions to see just how far they had come since the last time we reviewed them.

We decided to check out Vonexus Enterprise Interaction Center (Vonexus EIC) 3.0, which targets mid-size businesses with between 100 and 1,500 users. We should mention that their higher-end Customer Interaction Center (CIC) product targets mid-size to large organizations with up to 15,000 users and more, and has the same features as the Vonexus EIC, along with some additional features such as its Interaction Designer tool for full customizability, along with outbound/blended dialing, workforce management and knowledge management.

## Installation

Interactive Intelligence came to TMC Labs to set up Vonexus Enterprise Interaction Center (EIC) 3.0 along with a few IP phones and one softphone client called Interaction Client running on a laptop. We watched the installation process soup-to-nuts and it was very

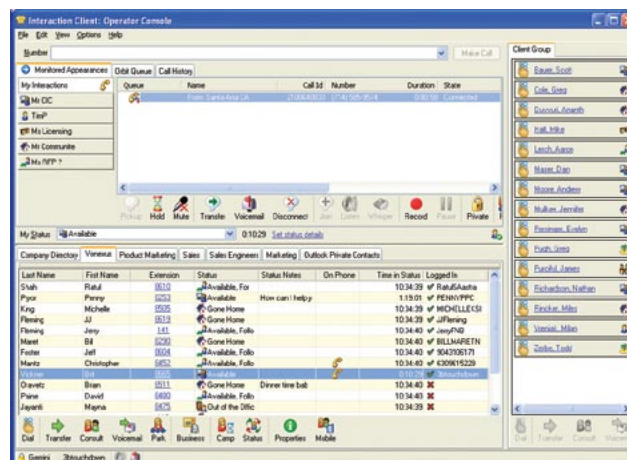


Figure 1. Powerful Operator Console

straightforward, including the configuration of the IP phones, which does support auto-provisioning. For such a comprehensive product we were surprised at how easy it was to install and configure.

## Documentation

The documentation for Interactive Intelligence was stellar. The user and administration guides were very easy to follow. There's also a nice small pocket guide that can fit in your wallet. There's also a mini-guide called Interaction Mail User Guide which is very handy for new users to become familiar with voicemail, fax, and messaging. The manuals are often color-coded and have colored screenshots making it much easier to read and navigate.

## Operational Testing

Part of our testing involved playing with the Windows-based administrative interface to determine how easy the system would be to maintain on a day-to-day basis, including adds/moves/changes of users, reconfiguring the IVR/auto-attendant, etc. The fact that it's Windows-based vs. browser-based is actually an advantage. The Interaction Administrator is a single administrative interface to configure local and remote users, lines, stations, IP networks, SIP device and digital phone connections, security access, make moves/ adds/ changes (MACs), etc.

Overall, we were very pleased with the administrative user interface, which has been tweaked and improved over the years. Certainly, TMC Labs felt the TCO for this platform was excellent in no small part due to its superb Windows-based user-friendly admin interface.

Relatedly, the Interaction Attendant lets admins and call center managers easily configure call routing for users and workgroups. You can also create and update on-hold messages, greetings, menus, etc. From here you can define DID/ DNIS call routing for specific menus or queues, prompts for a caller's PIN, etc.



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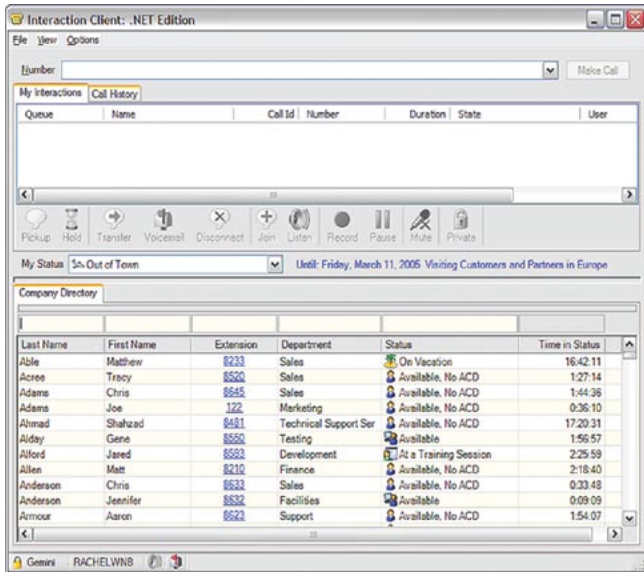


Figure 2. .NET-based and SIP-based desktop client.

Vonexus EIC features several excellent call control applications, including an operator console (See Figure 1). Their enhanced .NET (News - Alert) SIP-based desktop client (See Figure 2) features presence management, call recording, multi-party conferencing up to 96 parties, company directories, speed dials, drag-and-drop transfers, and more. As seen in Figure 2, on an inbound call you will see a Toast icon in the lower right allowing you to see the CallerID and either pickup the call or send to voicemail. Interactive Intelligence told TMC Labs that their new .NET client is less “chatty” on the network than their older Win32 softphone application.

In addition to their SIP client that runs on a PC, Vonexus EIC also sports an Interaction Client, Mobile Edition for Windows Mobile 5.0 & 6.0 devices for truly mobile access. Of course, it supports the traditional call control functions from the desktop IP telephone itself, including hold, transfer, conference, mute pick-up, etc., plus the ability to record calls.

Vonexus EIC also features embedded call control integrations into Microsoft Office Communications Server 2007, Outlook (See Figure 3), and Microsoft Dynamics GP and CRM. Further, you can even use their mobile Interaction Client, Web Edition for call control (see Figure 4), which is perfect for when you are using someone else's PC and don't want to install the Windows client. Vonexus EIC has the most soft-phone and call control options we've seen on any IP-PBX platform.

Importantly, it supports increased security by supporting Secure Real-time Transport Protocol (SRTP) and Transport Layer Security (TLS) to encrypt audio and call control info. Interactive Intelligence claims that they are the only IP-PBX that secures the entire VoIP communications — not just extension-to-extension calls. It even encrypts (SRTP) the touch tone digits pressed in the IVR/ACD, which both Cisco and Avaya do not. In Cisco's case, the gateway to the Cisco Call Manager is over the open network and can be captured with a packet sniffer.

One problem with pushing updates to Windows-based PCs is you often have to be an administrator to install software, which can be a bit hairy if an administrator has to manually log on to hundreds of workstations. Vonexus EIC solves this problem using an auto-provisioning service with admin rights to automatically push out software updates.

One of the most powerful features of Vonexus EIC is the ability to set personal rules, which is very similar to how you define Outlook rules. You can set rules based on current presence, CallerID, etc. This gives the user a lot of flexibility in how, when, and where they are contacted.

Importantly, Vonexus EIC supports T.38 fax with up to 96 ports of fax as well as desktop faxing. Another important feature is their speech re-enabled Interaction Mobile Office. This allows you to retrieve messages, calendar items, etc. simply using your voice in the speech-enabled IVR. Another important mobility component is the one-number find-me/follow-me feature.

The call center features are superb in Vonexus EIC. Supervisors using Interaction Supervisor can, for instance, set alerts such as on-hold > 3 min < 4 min and IM agents in queue automatically. Supervisors can pick up, join, listen, coach (whisper), or record the call. The reverse is also possible allowing an agent to request help. The “assisted response” feature lets an agent IM a supervisor queue. The first supervisor that accepts the request is then taken immediately to an interface where the call is displayed and they can then pick up, join, etc. Recording is another important feature for most call centers. Vonexus EIC offers built-in call recording and canned reports. Its optional Interaction Recorder module adds multi-channel recording for calls, web chats, e-mails and faxes; rules-based recording; archive management; innovative scoring for quality measurement; recording encryption; script adherence; and more.

One nifty ACD queue feature is the ability for a caller to leave the queue and then automatically get a call-back based on the ANI or the caller's specified number. Also, the Vonexus EIC queue supports inbound voice call queues, email queues, and web chat queues. Thus, customers have many options available to them to contact your business.

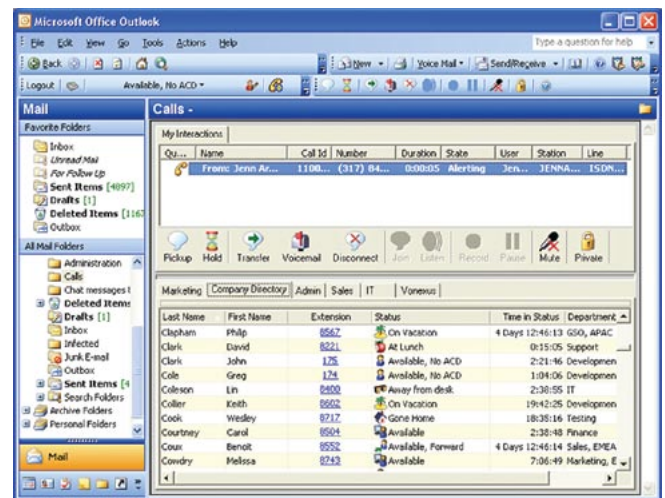


Figure 3. Outlook integration with EIC

Other features include the following:

- SLA (Shared Line Appearances)
- Call detail reporting — end-to-end reporting — ad-hoc custom reporting
- Multi-lingual support
- Remote and at-home users, mobile workers (Citrix)
- Informal contact center features
- ACD — multimedia queuing — e-mail routing
- Web chat

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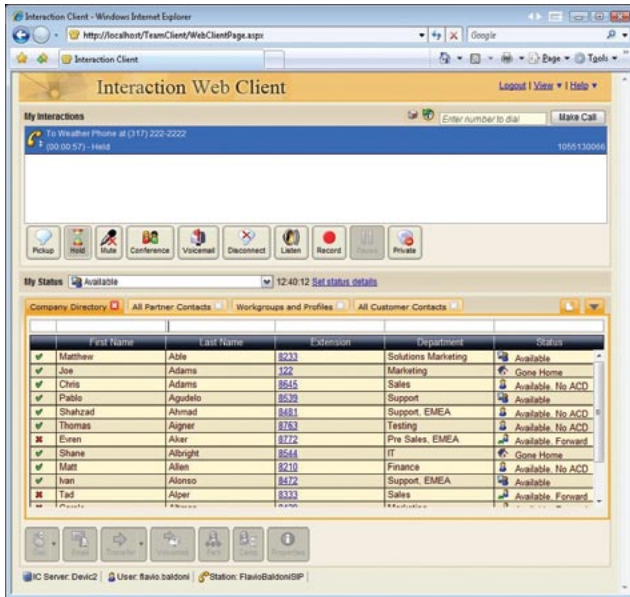


Figure 4. Web client for installation-less call control

- Real-time system/agent/workgroup supervisory monitoring & alerts
- CRM integrations — screen pops, database lookups, embedded call controls
- Multi-channel interaction recording — on-demand, rules-based
- Knowledge management, email/Web auto response
- Multi-site support

- Built-in IP audio conference server

Interactive Intelligence has also begun development for an automated customer satisfaction survey module that will be offered with Vonexus EIC this year, along with support for Microsoft Office Communications Server 2007.

## Room For Improvement

There wasn't much to harp on when it came to this system. Vonexus EIC features a plethora of communications methods, including voice, email queuing, and chat. The only obvious missing communications method is video calling, but video calling hasn't yet hit prime time in the B2B or B2C markets. Though the OCS 2007 integration could provide the missing link since it offers video calling & video conferencing.

## Conclusion

Interactive Intelligence's Vonexus EIC 3.0 is without a doubt the most powerful and comprehensive IP-PBX that runs on the Windows operating system. It may in fact be the most comprehensive IP-PBX running on any operating system! When you combine all the features that it provides and compare it to other solutions that require kludging several products together, the Vonexus EIC's TCO and price per station (\$500-\$1500) is a bargain. TMC Labs would highly recommend the Vonexus EIC 3.0 IP-PBX to any SMBs that require powerful call center functionality or that require multimedia forms of communications (voice, email, chat) with their customers. **IT**

*Tom Keating is TMC's Vice President, CTO, Executive Technology Editor and SEO Director.*

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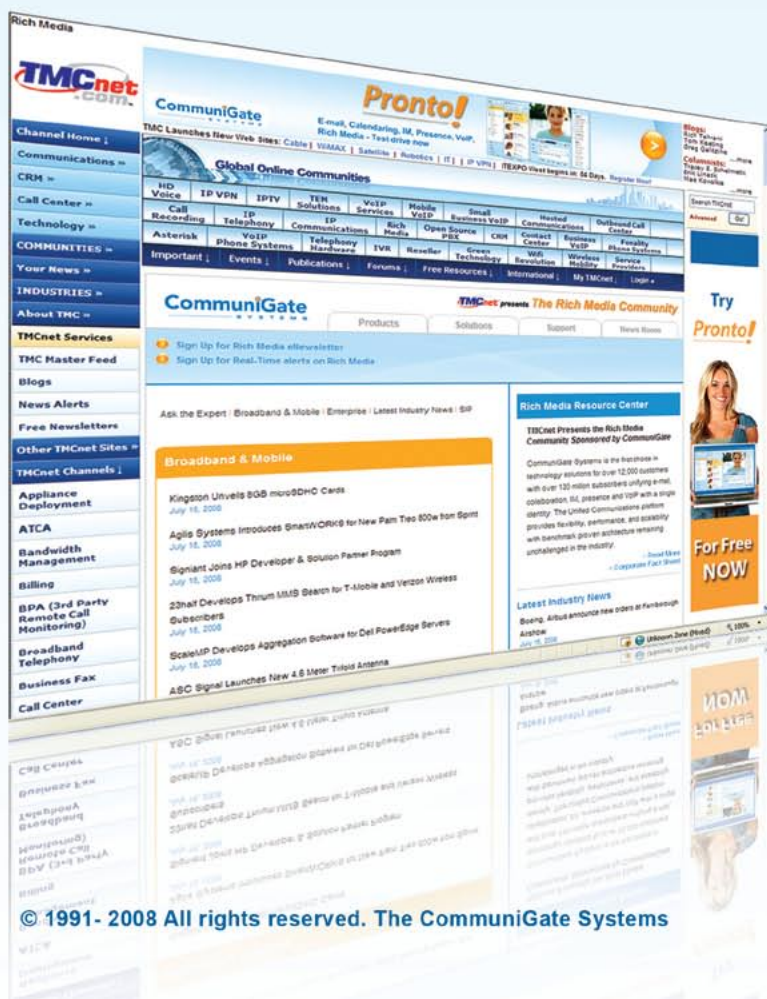
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Innovative Ideas from the “Audio Conferencing Solutions” Experts

## ClearOne: How to Get Better Audio on Your Conference Calls

by Richard “Zippy” Grigonis

Using audio conferencing equipment is one of the easiest ways for organizations of any size to save money, reduce their carbon footprint, and boost productivity. And today’s high-definition conferencing technologies make group communications possible in a very natural, effective environment. But a conference call with bad audio is more than just annoying. Bad audio leads to participants experiencing “listener fatigue”; they don’t fully engage because they can’t hear all of the conversation; important ideas aren’t fully explored because comments aren’t understood.

But it doesn’t need to be that way. In search of tips in this area, Yours Truly spoke to Mark Child, Director of Product Marketing — Telephony for ClearOne, masters of high performance audio conferencing. Here’s what he suggests you can do to maximize the experience and make your conference calls more effective and rewarding.

### RG: How do I get rid of the echo?

**MC:** If a conference phone doesn’t do a good job of acoustic echo cancellation, a conference participant can often hear his (or her) own voice coming back through his loudspeaker, but at a slight delay. This echo makes it extremely difficult to carry on a normal conversation. Effective echo cancellation can identify the audio from my microphone that is being returned to my speakerphone and cancel it out — completely.

### RG: If I’m in a noisy room, is there any way to improve the sound quality?

**MC:** Yes! Almost all rooms — including most conference rooms — contain ambient noise, produced by HVAC systems, fluorescent lights, projectors, computers, etc. Noise cancellation algorithms can identify these sounds and remove them. The best conferencing phones use a digital analysis technique that discriminates the talker’s voice from ambient room noise and cancels the noise. This allows the conversation to pass to the far side in a pristine condition.

### RG: What does “full-duplex” mean?

**MC:** Full-duplex simply means that the audio is two-way. In other words, call participants can both talk and listen at the same time. Many devices claim to be full-duplex but really deliver only half-duplex performance. This means that when one person is talking, he cannot hear anything being said from the far side without substantial audio clipping or suppression.

### RG: Why does it sometimes sound like I’m in a tunnel?

**MC:** When multiple microphones are active simultaneously, voice signals arrive at different microphones at different times due to sound reflection from walls, ceilings or other surfaces. This causes sound distortion often described as a “hollow” or “tunnel” sound. Such distortion can be minimized or even eliminated by phones that use an intelligent voice detection method to activate only one microphone at a time based on the proximity of the person doing the talking.

### RG: Sometimes the audio starts out okay, but then it suddenly worsens. Why?

**MC:** In any conferencing environment, a number of factors can cause changes in the room’s ambient noise level, including the HVAC system cycling on and off, an increase or decrease in the number of people in the room, changes in seating arrangements and other similar acoustical events. This can often cause feedback or residual echo. Some conference phones use a type of “adaptive modeling” technology to continuously monitor key acoustical elements in order to predict and adapt to environmental changes, ensuring high quality audio, regardless of varying room dynamics.

### RG: Why does the audio sound really tinny, sometimes?

**MC:** The vast majority of conference calls are conducted using narrow-band phone signals, which eliminate the high and low tones from your voice. This often causes listener fatigue since participants have to strain to hear what is being said. Technology is available that can simulate the high and low tones that were eliminated, creating a more full-sounding audio even from a narrow-band phone signal. This makes the call sound much more natural and easier to listen to.

### RG: Does it really matter where I place the conference phone?

**MC:** Yes, it does. For example, in a medium- or small-sized conference room, a tabletop conference phone should always be placed in the center of the table. This makes it possible for all participants to hear and be heard. This also helps the phone effectively handle feedback or residual echo from reflective surfaces. In other words, don’t place the phone up against a wall or window and expect it to sound good.

### RG: Anything else?

**MC:** Just remember that in order for the microphones to work effectively, they should have plenty of empty space around them. Be careful that papers or notebooks don’t accidentally cover up any of the microphones. And if participants are tapping on the table or playing with the equipment, the extra noise can cause the digital signal processors (DSPs) in the phone to go through a lot of extra gymnastics in order to try and differentiate between the extra noise and the speaker’s voice. **IT**

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# Tift County Schools Improves Bottom Line with VoIP

Tift County Schools in Georgia was facing an all too common problem that school districts across North America regularly encounter: How to improve what it offers students without spending more money than the bottom line will allow.

Searching for the solution, Tift technology services director Harris Tucker decided to look into what Mitel had to offer. What he discovered was that Mitel already had been working on just such a tricky equation for school districts everywhere, and had come up with the answer to how schools can subtract money from their communications costs while enhancing student outcomes through the improved flow of information between staff, parents and students.

In other words, if you want better grades, build a great IP communications system and they will come.

Tift County Schools, the board of education that serves the community of Tifton in southern Georgia, has approximately 7,500 students that attend one of the board's 12 schools.

When Tucker was tasked with evolving a dated 1988 phone system into the modern world of Voice over Internet Protocol (VoIP), he asked Mitel how it could help. Mitel did its homework and before long presented the plan he was hoping to hear.

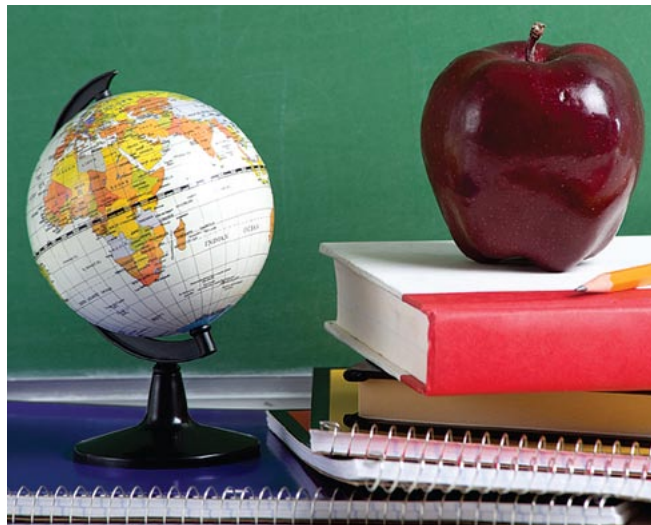
Tift selected the Mitel 3300 IP Communications Platform (ICP) with embedded standard unified messaging, auto-attendant, automatic call distribution (ACD) and wireless, along with more than 200 IP phones located across the district all with convenient four-digit dialing. The 3300 ICP can support an ever evolving range of desktop devices including entry-level IP phones, Web-enabled IP devices, wireless handsets (WiFi or IP DECT) and full-duplex IP audio conference units. The solution also supports a suite of applications including multimedia collaboration, CRM, and unified messaging.

"Our existing telephone telecommunications environment was 14 individual and separate key phone systems," said Tucker.

"The 179 phone lines we had cost Tift County U.S. \$3,848 per month. The high school service cost U.S. \$900 per month. On top of that, we paid for two long distance companies.

"The savings became apparent right away," Tucker explained. "Our return on investment will allow us to recoup our investment in only two-and-a-half years, while the ongoing per-year savings can go to where it's needed most — the education of the students." Tucker calculates that in total, Tift County will be saving U.S. \$50,160 per year on its new communications system.

Before deployment, the widespread schools were not able to transfer calls to other schools, the sole attendant had to answer incoming calls from



the public as well as school staff from across the board, and the board of education. Additionally, Tift County deployed voicemail for the first time, and added an after-hours auto attendant to relay messages regarding school hours and if there are cancellations due to inclement weather.

To make communications easier still, parents now only have to call a single phone number to reach any school in Tifton County. With ACD, calls now get answered quickly and are rerouted correctly with a four-digit extension.

With Mitel's solutions, Tift County has taken a giant leap forward by making communication between the schools and parents much more accessible. For example, in the past, teachers might not know why a student was absent from class until the next day when a note from home was brought in. However, if a student skipped classes he or she would enjoy that entire day without worry of being caught. With a phone in every classroom now, parents can call in and leave a message on that particular teacher's voice mail, or even send a text message that scrolls across the teacher's phone screen. If the teacher did not receive a good reason for an absence, he or she can call the student's parents right from the classroom rather than waiting for a break in the day's schedule.

The Georgia State Board of Education authorized the Department of Education to recognize Tift County Schools as a Title 1 Distinguished School District at its October 2005 meeting. Tift County was identified as a model for other school districts on closing the achievement gap for economically disadvantaged students.

"We've been very successful achieving our goals with the Mitel system," said Tucker. "But not only are we saving money, we're also offering students a better chance to succeed by opening up the lines of communications and helping their parents become more involved." **IT**

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# 2008 IPTV Excellence Awards

It's clear that after several years of trials and false starts, the IPTV industry is firmly on track for sustained growth and success. Market research indicates that this is indeed the case. Numbers from Multimedia Research Group, Inc. (MRG) point to the number of global IPTV subscribers growing from 24 million in 2008 to 92.8 million in 2012, a compound annual growth rate of 31 percent. Revenue over that timeframe is expected to grow from \$7.2 billion in 2008 growing to \$31.6 billion in 2012, a compound annual growth rate of 34.5 percent.

INTERNET TELEPHONY magazine has been following the IPTV market for quite some time now, and we felt that the vendors serving this market were in need of some recognition, for their contributions to the growth and innovation displayed in the IPTV market. The award winners all submitted applications for consideration, and only the best and most compelling solutions were ultimately judged to be worthy of our inaugural 2008 IPTV Excellence Award.

Brief descriptions of the award winning products appear below. The editors of Internet Telephony magazine applaud this year's winners.

## IBM

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

### Converged Communications Services — IPTV and Triple Play Infrastructure

The IPTV and triple play infrastructure from IBM includes consulting, integration, and deployment services to design, deploy and support IPTV infrastructure solutions for Tier 2 and smaller Tier 1 service providers and ISPs that want to differentiate, utilize more of their current networks, and enter new service areas by providing TV/Video and carrier IP voice-based services for their customers. IBM can help clients develop a business case and help design and deploy an IPTV infrastructure solution that meets the client's immediate and long term business objectives, while also establishing an ideal platform for future growth using converged service provider network.

## Internap Network Services

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

### Internap IPTV Solutions

Internap provides an integrated solution to deploy customized video experiences for viewing "channels" of live or on-demand TV programming across the Internet. With Internap, content



providers are able to deploy a secure, reliable, and scalable IPTV infrastructure to deliver broadcast quality entertainment and communications to a large global audience regardless of location, size, or device. Internap IPTV Solutions can be purchased as individual services or as a turn-key, outsourced technology infrastructure. The entire solution is deployed via Internap's technology infrastructure platform of 42 data centers and 56 network service points that extends around the world.

The IPTV Solutions portfolio includes:

- Content Delivery Network;
- Performance IP network;
- Data Center Colocation Space;
- Digital Asset Management and Rights Management;
- Monetization Tools;
- Professional Services; and more.

## Ixia

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

### IxRAVE

IxRave is an end-to-end remote network and service validation platform for IPTV/triple play providers. It enables carriers, service providers and enterprises to actively isolate faults, verify that end-customers are receiving IPTV services, ensure the services are working according to SLAs, and then continually monitor their networks remotely. IxRave is a cost-effective, scalable solution that integrates with carriers' operation support systems (OSS) and provides active rather than passive IPTV service validation. IxRave uses inexpensive probes deployed along network edges to perform real-time active network validation and ensure end-to-end video quality of experience for subscribers. With IxRave, IPTV providers can remotely track the quality of service for customer specific applications by following the actual path the video takes getting to the end user.





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September 24, 2008 • 2:00pm ET/ 11:00am PT

**Demand, Trust, and Value: 3 Secrets to Making Money by Reselling Hosted VoIP**

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**Defining Unified Communications Security: UC Security Requirements - Series III**

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<b>Internap Network Services</b>	<a href="http://www.internap.com">www.internap.com</a>	Internap IPTV Solutions
<b>Ixia</b>	<a href="http://www.ixiacom.com">www.ixiacom.com</a>	IxRAVE
<b>RADVISION</b>	<a href="http://www.radvision.com">www.radvision.com</a>	Multimedia Terminal Framework
<b>Redback Networks</b>	<a href="http://www.redback.com">www.redback.com</a>	SmartEdge 1200
<b>Shenick Network Systems</b>	<a href="http://www.shenick.com">www.shenick.com</a>	diversifEye10G
<b>Thomson</b>	<a href="http://www.thomsontelecompartner.com">www.thomsontelecompartner.com</a>	SmartVision IPTV Service Platform

**RADVISION**  
[www.radvision.com](http://www.radvision.com)  
**Multimedia Terminal Framework**

The Multimedia Terminal Framework can be utilized by vendors to integrate live person-to-person video conferencing to the set top boxes (STB), enriching the interactivity of the IPTV experience. The Multimedia Terminal Framework allows application developers to focus on functionality rather than standard specifications when developing equipment such as IP STBs. The IP STB is fast becoming the entertainment epicenter of the digital home. Adding live, person-to-person video communications is the next step in enhancing the user experience. Chipset vendors and IP STB developers can incorporate RADVISION technology into their solutions, enabling these innovative new services to be offered to end users.

**Redback Networks, an Ericsson Company**  
[www.redback.com](http://www.redback.com)  
**SmartEdge 1200**

Redback's SmartEdge 1200 is a million subscriber rack for triple-play services such as HDTV, HD VoD and broadband mobility. The routing innovation behind the SmartEdge platform is at the center of Ericsson's efforts to deliver 'full service broadband.' By connecting wired and wireless networks, Ericsson will enable a world where any network can deliver any service to any Internet-enabled device. The SmartEdge 1200 platform introduces three major innovations: It doubles carrier capacity for new video upgrades, extends triple-play services to broadband mobile networks and integrates up to six network applications into a single router. New network applications include deep-packet inspection for peer-to-peer traffic management, advanced session border capabilities and network security for carriers and their customers.

**Shenick Network Systems**  
[www.shenick.com](http://www.shenick.com)  
**diversifEye10G**

diversifEye10G is the world's first high-performance 10Gbps STATE-FUL IP application traffic emulator, supporting a full range of Layer 2-7 tests in a single module. The solution offers an extreme level of stateful, converged services and IP application traffic emulation and performance testing. diversifEye10G reflects the real stresses induced by the aggregated triple play of IPTV, VoD, VoIP and data applications from access to network core. In addition, networks must cope with the proliferation of security attacks such as DDoS, SPAM and viruses. diversifEye10G offers the ability to launch massive security attacks to really test the capability of networks to mitigate against such intrusions while still offering a high-quality end user experience.

**Thomson**  
[www.thomsontelecompartner.com](http://www.thomsontelecompartner.com)  
**SmartVision IPTV Service Platform**

The SmartVision IPTV Service Platform provides network operators with a powerful and cost-efficient tool for distribution of advanced video and multimedia services over any network to any device. The SmartVision IPTV service management platform allows service providers to centralize system administration and supervision. Using dedicated Web portals, the SmartVision TV platform enables users to manage content and service subscriptions. SmartVision supports multiple digital rights management systems for both live and on-demand programs and flexibly manages billings. It addresses key quality of service standards through built-in bandwidth control and regulation. Using the SmartVision on screen portal, users can easily access a range of features including live TV reception, electronic TV program guides (EPG), mosaic presentation of TV programs, video-on-demand (VOD), subscription VOD, interactive services, personal video recording (PVR), and voice over IP (VoIP) services, as well as game and e-commerce applications. **IT**



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# IP (truly) Sizzled in Dallas

By: Greg Galitzine

On July 28, several members of the TMC team traveled to Dallas, TX and the 100+ degree heat to attend IP Sizzles. The event, organized by ABP Tech is designed to provide resellers the ability to network, attend conference sessions, and get hands-on training that will help them to gain a broader perspective of IP applications and how to provide more value to their customers.

IP Sizzles was a wonderful and well organized event. Starting with the Broadvox-sponsored SIP Margarita reception to the opening keynote speeches, to the educational sessions and solutions showcase, right through to a very special evening at Texas Stadium, ABP's president Robert Messer and his team did a fantastic job of bringing together VARs and vendors for several days of networking, education, and fun.

In his opening remarks, ABP's Chance Crawford welcomed the reseller community and explained that ABP is "...in position to help you understand what to expect when using or reselling IP communications products."

One of the goals of the conference, he said, was to give resellers the "motivation, confidence, and knowledge they need to succeed."

Robert Messer echoed many of Crawford's thoughts, adding that one of the fundamental needs for a technology reseller is training.

"To help our partners — the channel — we decided to provide training," Messer said. More so, we want to help with processing that information to the point where it becomes knowledge. And the next step after knowledge is experience."

Regarding the current economic conditions, Messer explained that, "the key is for resellers to understand that certain areas of the economy will be worse while some will remain strong. They need to understand this and apply their efforts to those areas of stronger growth, for example B2B in certain verticals."

Messer pointed out that, "VoIP provides the opportunity for companies to save money and gives resellers the opportunity to get into the conversation."

One of the major highlights of the event was an evening reception at Texas Stadium, home of the five time Super Bowl Champion Dallas Cowboys. After a tasty barbecue dinner, the VARs and the vendors (along with a couple of very fortunate publishing folks) gathered together on the field to engage in a pick-up game of flag football. It was truly a thrill for those involved and provided some wonderful memories that will last a lifetime.

Kudos to the ABP team in general — and Robert Messer in particular — for organizing such a wonderful event. The IP communications industry only stands to benefit from such dedicated champions of the technology and their efforts to educate the channel. **IT**

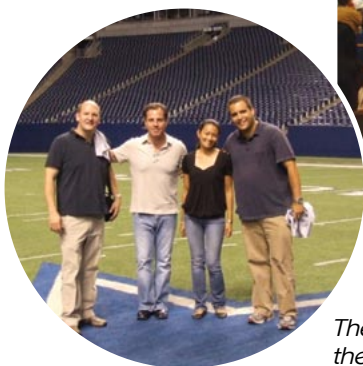
*IP Sizzles attendees enjoying the SIP Margarita reception, sponsored by Broadvox.*



*ABP president Robert Messer welcomes conference delegates.*



*Rich Tehrani and Robert Messer pose for the camera.*



*Texas Stadium.*

*The TMC team gathers on the star at Texas Stadium.*





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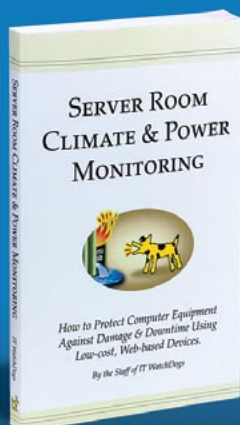
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# IP Communications Heat Wave

By Greg Galitzine

**D**allas in July. For a Northeastern boy — born and raised — the specter of traveling someplace that's known in part for its inhospitable weather is not something I ever look forward to. But as luck would have it, Dallas wasn't just hot when I traveled there at the end of July. It was record setting hot. 105-degrees in the shade hot. And yet, being the glass half full kind of guy that I am, I feel fortunate that I was not there the following week, when the temperatures reached 110 degrees.

Heat notwithstanding, the trip to Dallas was well worth the effort. Not only did I attend the ABP-sponsored reseller focused event IP Sizzles, I also had the opportunity to stop in and call on a number of industry players in the greater Dallas area.

## Fujitsu

Fujitsu Network Communications recently announced that they would expand manufacturing capacity at their Richardson, Texas, headquarters. This stands in stark contrast to many other manufacturers, who continue to offshore their production capabilities to areas outside of the United States. Plans call for Fujitsu to shift the production of several important optical and electronic components from Europe and Japan to the U.S., creating nearly 70 new professional and production jobs in Richardson. The company believes this will improve their ability to respond to highly variable global demand, by improving operating efficiency.

My colleagues and I took a tour of the manufacturing facility. The tour, led by Fujitsu's Danna Melcher provided a very interesting look at how the company produces its various network elements. Fujitsu's senior manager of media and analyst relations Bob Laurent explained that the company is, "bucking the trend of outsourcing overseas."

"If done correctly," Laurent added, "manufacturing can be a very strong asset and key differentiator for a company, and we believe it's a strategic advantage that we bring to the table."

## Aastra

For those who may have missed it, Aastra acquired the Enterprise Communication Business of Ericsson this past spring. The acquisition allows Aastra to extend its presence in Western Europe as well as Eastern Europe, Middle East and Africa, Asia Pacific (including Australia and New Zealand) and North and South America.

EVP & General Manager Dana Call says the acquisition will not only create opportunities in the installed base, but also generate new business from larger businesses wanting to deploy smaller solutions to remote offices.

"The key thing is evolution," Call said. "A well thought out, well planned approach will offer customers investment protection. We plan to lay out a road map that will allow customers to utilize new technology and new products that they can use in a way that makes sense for them." Call also stressed the importance of open standards as a key value for Aastra.

"Open standards are critical for enabling the company to compete," she said. "We make one line of sip phones and we compete across the

phone business. Likewise on the switch side — openness breeds confidence that the solution will work in a customer's environment."

## Texas Instruments

No visit to Texas would be complete without a visit to Texas Instruments (TI). I had the chance to meet with Kim Devlin Allen, who heads up business development for TI's CPE VoIP Communications Infrastructure and Voice DSP systems.

Among other things, we discussed the company's recent announcement of the Modular Open Voice Engine (MOVE) software, a voice solution ported to run on TI's C64x DSP core. The offering is designed to allow IP phone manufacturers to customize high-quality voice, video, and multimedia capabilities for their customers. Devlin-Allen said that over time, as the C64x platform evolves, it "can be utilized to enable any voice IP-based endpoint to come in to play."

She gave the example of emerging video phones, and pointed out that streaming video is another good early indicator of the adoption of video. "Our technology," she said, referencing the C64x, "gives customers the flexibility to add in these features and allows them to be cutting edge as they bring video into play." Devlin-Allen also referenced the recent news that Polycom had selected TI DSP technology to power its new SoundPoint IP 670 desktop phone, explaining that the two companies together share a similar vision of improving and pushing HD and high-quality voice to the enterprise.

## Nortel

I also stopped by the Richardson offices of Nortel. It's no secret Nortel maintains a strong focus on Enterprise, tied in with the company's well-publicized unified communications (UC) initiatives, focusing on accelerating communications into business.

I asked David Murashige, Nortel's Vice President for Global Enterprise Channels if customers knew enough about unified communications to determine if they have a need for it in their enterprise. According to Murashige, "people are aware that business processes can be positively impacted by communications and that latency in business process is surmountable by UC, but it is perhaps not commonplace," which leads to a need for continued education of the marketplace.

Nortel is in an exciting place as the company transitions into new style of business, vastly different from what they were 30 years ago. The company is evolving, becoming more of a software business over time. Murashige pointed out that as opposed to a strict focus on "big boxes," Nortel is becoming more of a software company, "offering prepackaged applications and solutions for people who want to streamline development to whatever business process functionality they wish to affect." An example of this is the fact that Nortel is increasingly partnering with strategic integration companies, such as the IBM's of the world, and really opening the door by embracing SOA to really drive innovation at business process level.

All in all Dallas was hot — but more so than the outside temperature. My time in Texas showed me that innovation is continually taking place and that the future of IP communications is constantly evolving, driven by innovative people at some innovative companies. **IT**

— Greg Galitzine is Editorial Director for TMC.



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