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# INTERNET TELEPHONY

VOLUME 14/NUMBER 6 JUNE 2011

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Getting Vertical:  
Higher Education



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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.



## Microsoft's Big Skype Move

At first, rumor had it that Facebook and Google were both looking to acquire Skype.

A Reuters article talked

of a potential Skype acquisition in the \$3 billion to \$4 billion range by one of these communications giants, and it indicated such a deal would help explain why Skype has postponed its initial public offering.

But, as it turned out, it was actually good old Microsoft that got its hands on the IP conferencing pioneer.

On May 10 Microsoft announced its intention to buy Skype for \$8.5 billion in cash.

"Skype is a phenomenal service that is loved by millions of people around the world," said Microsoft CEO Steve Ballmer in announcing the deal. "Together we will create the future of real-time communications so people can easily stay connected to family, friends, clients and colleagues anywhere in the world."

Established in 2003, Skype currently is owned by an investor group led by Silver Lake and includes eBay Inc., Joltid Ltd., and Skype founders Niklas Zennström and Janus Friis, the Canada Pension Plan Investment Board and Andreessen Horowitz. This group bought Skype in November 2009 from eBay, which had purchased Skype back in September of 2005.

Skype as of last year had 170 million connected users and handled more than 207 billion minutes of voice and video conversations, according to Microsoft. The software behemoth also noted its continu-

ing interest in real-time communications, pointing to its Hotmail, Lync, Messenger, Outlook and Xbox LIVE products. And it said that Lync experienced 30 percent revenue growth in the third quarter.

The plan is for Skype to support Microsoft devices like Xbox and Kinect, Windows Phone and a wide array of Windows devices, and Microsoft to connect Skype users with Lync, Outlook, Xbox Live and other communities.

Industry analyst Jeff Kagan says: "This will put Microsoft back in the game on the larger playing field against newer and faster growing companies like Google and Apple who have also expanded into the telephony business with their wireless Android and iPhone."

Meanwhile, TMC's own Rich Tehrani notes that back in 1997 when Technology Marketing Corp. decided to launch **INTERNET TELEPHONY** magazine, "the nascent market had VocalTec, a software manufacturer charging around \$50 for their software, and Microsoft with their NetMeeting software which was free.

"Overnight, Microsoft took over the VoIP client market and became the reference software for H.323 calls - a standard which is rapidly losing out to SIP for most applications," Tehrani adds.

But, as Tehrani continues, NetMeeting was not user friendly and Microsoft quickly lost interest and reallocated telecom developers to its Internet strategy. A similar scenario played out relative to Microsoft's wireless phone efforts, he says. So, ironically, says Tehrani, Microsoft is now pouring billions to get into a market it willingly exited years before. **IT**



Microsoft CEO Steve Ballmer and Skype CEO Tony Bates announce Microsoft's acquisition of Skype.



# HTML5 to Allow 15-Year Post Internet Boom Mega-Cycle

Investing legend Roger McNamee, managing director and co-founder of Elevation Partners, was interviewed on CNBC recently and explained why he is bullish on the tech sector. He commented that Apple is winning and told us why. He continued by saying companies are trading down from Windows to tablets and saving thousands per year on support. This will free up \$100 billion worth of revenue per year in this category, he said.

There is a titanic clash for Internet control. Will it be app stores or HTML5? Which wins?

My readers know I have brought this question up as well. This is an important issue.

McNamee explained the success of indexed search has resulted in pollution (spammers, etc.) and as a result users are switching to Wikipedia, Yelp and others.

He went on to say there is a global shift to HTML5 which is putting the focus on content development. He sees this as a mega-cycle, like the Internet cycle, which can last up to 15 years.

How do you play this from an investing perspective? Roger believes Microsoft is fine, as it has a monopoly on Exchange. He does believe the Microsoft ecosystem – companies like Intel and Dell – will see brutal times ahead, however. He believes Google will do OK, but that investors should short Google and buy Apple if they want to play the future of tech.

His company has a huge position in Facebook and Yelp. He went on to say social is a contained group of companies – meaning its growth is not an industry-wide phenomenon.

But McNamee is not excited about the Android market because there is no central control, no anti-virus and a history of apps that have done things like steal credit card numbers. He said Android is like the Wild West. He also posited the

question: What if Apple doesn't get 10 to 15 percent market share in tablets, but instead 60 to 70 percent? He explained that then Apple will be the largest hardware company out there by a mile.

I must say the points regarding Apple are very good. It is not a given that Apple will lose the share analysts predict. Moreover, I agree that HTML5 presents a major opportunity, and listening to this interview made me feel good that TMC is launching an HTML5 development event next month in New York called DevCon5. To get more information on that July 27-28 event, which will be held at New York University's Kimmel Center, visit: <http://html5.tmcnet.com/conference/newyork/>

"HTML5 will certainly have a profound impact on the Internet," says Tom Keating, TMC's vice president and CTO.

As INTERNET TELEPHONY's Executive Editor Paula Bernier reported out of February's Mobile World Congress in Barcelona, some of the world's largest communications companies are excited about the promise of HTML5. That includes the Wholesale Applications Community, an alliance of the world's largest telecommunications operators and device manufacturers, which has at least 68 member companies, eight service providers that have on-boarded WAC, five device makers supporting the spec in their products, and 12,000 applications in place.

Randall Stephenson, chairman, CEO and president of AT&T, was one of the top telecom chiefs appearing at the WAC press conference in Spain. At that event, he talked about how the WAC 2.0 specification unveiled at the show is based on HTML 5, so will allow for more rich media web-based applications. Once you open the door to HTML 5, said Stephenson, you develop applications that work on multiple platforms and operating systems.

"That's when the 12,000 [applications] becomes a down payment," he added. **IT**

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# Cedarville University Branches Into VoIP

**I**t's a familiar refrain: An organization has an existing Nortel phone switch that's nearing end of life and needs to decide where to turn. For Cedarville University, the answer was an open source solution from eZuce.

Dave Rotman, associate vice president of technology at the Christian college in southwestern Ohio, says the school first considered adding VoIP to its existing Nortel switch. It received an informal comment from its Nortel representative that the cost of doing so would be \$100,000 more than it expected. The university didn't want to sink that kind of money into a switch it got in 1992 and was buying parts off eBay to maintain, especially given the state that Nortel was in at the time. So it started looking for alternative VoIP solutions that would put it on a path to offer more advanced functionality to users.

Rotman and his colleagues quickly became intrigued with the idea of using an open source solution, which wouldn't require Cedarville University to pay license fees "over and over," he says. They looked at various solutions on this front and settled on eZuce's sipXecs system.

"We felt like the sipXecs product was a little more contemporary," he says. "It's a pure SIP architecture."

The server sets up the call, he adds, but it doesn't stay in line for the call, so the server doesn't get overloaded with voice traffic, Rotman says. That means the university saves on server resources.

What's more, the solution provides users at the university with the unified communications functionality Rotman and his colleagues had been seeking. For example, end users can access a web interface to configure their own phones rather than relying on IT staff to do the job. And, down the road, the school expects to introduce presence management.

As of late April there were four buildings and 140 phones – mostly Polycom's HD-based IP 560 models – being served by the sipXecs system, which came into service at the university in September 2010. They started with 40 phones on the system and expect to add 30 phones a month for the next couple years. Ultimately, the new switch will serve between 1,200 and 1,300 endpoints at 40 buildings, including a new academic site to open next year.

The system consists of two blade servers in a failover arrangement, although voicemail is only on one of the two servers. Analog gateways help to support fax machines, auto dialers and other legacy gear. The university also has a gateway that connects to its Nortel PBX to allow for the phased implementation of the new eZuce solution; Ronco Communications helped Cedarville University with that integration.

To help get university staff comfortable with the new solution, eZuce put a staffer on site for a couple of days, and both eZuce and Ronco trained Cedarville University staff on how to manage and use the system.

"The expert advice, guidance, and recommendations provided during the installation process were excellent," says Rotman. "Cedarville staff members were able to learn how to manage the sipXecs installation, deploy handsets, interface to analog devices, and perform other duties."

He adds that university users appreciate the improved sound quality on voice calls as a result of the HD phones, and they enjoy the ability to manage voice mail, access messages through WAV file attachments in e-mail, process voicemail via a web page, and use the telephone handset to access voicemail.

As discussed in the October issue of *INTERNET TELEPHONY*, eZuce is a commercial enterprise established by the men behind SIPfoundry. The company delivers all-software-based

Cedarville University





# younified

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telephony solutions akin to what Microsoft provides. The twist is that the eZuce solution offers the added benefit of being open source and the go-to-market will be 100 percent indirect.

Martin Steinmann, eZuce's co-founder and president, late last year commented that the company delivers the first open software UC solution to hit the core of the enterprise market. Asterisk was in the SMB market for a long time, and analysts in 2008 said open source had reached about 18 percent share of the SMB market, he noted.

"We are now taking this model into the core of the enterprise market," he says. "We continue where Asterisk left off. I think we are the only credible successor to an open source product in the broader UC market."

The privately owned company, headquartered in Newburyport, Mass., was founded in February by Steinmann and Jerry Stabile.

"eZuce is a new company, but it's not your typical startup," says Steinmann. "We are new, but we start out with a mature product, the product that is in the market, that is in the chan-

nel, that is referenceable, that is known to work, and is a really serious solution that competes in the mid enterprise market."

The idea is to deliver and support a complete solution that replaces legacy PBXs like Nortel CS-1000s, Meridian-1, Aura products and Cisco CallManager as well as other solutions on the market, he explains.

"We think the software model and open source economics really unhinge the incumbents' model," says Steinmann. "I've been inside Nortel. I've run the P&L. I know how it looks, and the price differential between what Microsoft introduced based on a software model. And that gets compounded as you add the open source economics into this. [So it] is so vastly different from the current established pricing model in this PBX market that the P&Ls of incumbent vendors just can't compress to that level.

"And then we deliver what customers and partners really want," he continues, "and that is an IT application, communications as service, and the solution that comes in at a significantly lower cost." **IT**

## Thinking IT Through

By David Yedwab



### UC Interoperability – Finally Reaching a Crescendo of Interest

The topic of interoperability within the UC space has been an area of interest of mine for several years. I've been concerned that without broad interoperability, UC applications become islands – and island-hopping is not always easy to schedule nor incredibly cost effective.

I have been lobbying across the industry's events that users and vendors pay more attention to these issues. And, fortunately, the message is catching on – we need broader UC interoperability.

Why? Would telephone calls and e-mail be the universal communications tools they have become without universal connectivity (read that as interoperability)? Thus, islands of UC, within an enterprise or within a set of solutions from one vendor (or vendor ecosystem), need to become universal – both within the enterprise and inter-enterprise (usually termed as federated) for business partners.

How about for customers who may not be affiliated in any way? Marty Parker, my UCStrategies colleague, has shown that most enterprises only need interop at a small set of interoperability points in their business processes. And, he goes on to say that several of these have been addressed and can work rather well today. However, that is not good enough to spur universal UC deployment and adoption. Why? Because there is no a priori knowledge about whether any specific

interop will work – and that it will work with any mix of multi-vendor solutions. And that is the challenge.

Without broad interoperability, enterprises must spend valuable time and effort to find the specific known interop requirements within their projected UC deployment and to validate, with their selected vendors (it can't be done generically) that these specific interops work and can be deployed on their current (or upgraded) solutions.

I have postulated that there are two major categories of multi-vendor interoperability that need to be examined, explored and broadly acted upon by the vendors. Those two categories are interoperability by design – those interoperations designed to work through testing and certification, by a vendor and its ecosystem of partners – specific one-to-one interop; and interoperability by legacy – how an enterprise grows interoperability from existing legacy/embedded deployments to future architectures.

The current state of UC interoperability is improving, in that we are seeing some progress; however, user pressure must continue if we are to continue to make progress and ultimately have UC interoperability – multi-modal – from any device, user, vendor architecture to any other – as simple as sending an e-mail or making a phone call (for those of us, reprobrates, who still view phones and phone calls as important). **IT**

*David Yedwab is a founding partner in Market Strategy and Analytics Partners LLC ([www.mktstrategy-analytics.com](http://www.mktstrategy-analytics.com)).*



A hand-drawn network diagram on a white napkin. The diagram features several colored circles (orange, blue, green, red) connected by lines, representing a network topology. A central blue circle is connected to several other blue circles. To the right, there are several colored squares (pink, yellow, green, blue, red) connected by lines, representing a different network topology. The URL 'high-definition-digital.tmcnet.com' is written in black ink across the middle of the napkin.

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By Joshua Bixby



## Two Months Later: Has Google's New Algorithm Cleaned Up Search Results?

On Feb. 24, Google announced changes to its search algorithm intended to weed out “shallow and low-quality content” – in other words, content farms, aggregators, and other random web detritus that clutters up your search results. The announcement met with the expected chorus of boos and hallelujahs. Now, about three months later, is it early enough to see how successful the changes have been?

Immediately after Google's announcement, my thinking was that the algorithm changes are good news for legitimate content providers. This is Google's attempt at leveling the playing field so that users can get access to better, more relevant content, instead of being bombarded by useless pages designed to dupe them into clicking on ads. While it's true that some good sites could get caught in the net among the bad, the goal is to weed out the worst offenders that have been trying to fix the field for a long time.

- According to the software firm Sistrix, sites like Wisegeek.com, Ezinearticles.com, and Yahoo's Associated Content each lost at least 75 percent of their Google-generated traffic.
- On the other hand, sites like eHow.com, LinkedIn, the Library of Congress, Encyclopedia Britannica, and MarthaStewart.com reportedly grew their traffic, though the amounts are unknown.

Do these numbers indicate success or failure? The answer is highly subjective, depending on your feelings about each of the sites mentioned above. All we can definitively say is that the changes to Google search have been significant enough to have a marked impact. (And these, of course, are just some of the major players. It's impossible to assess the cumulative effect felt by millions of smaller publishers.)

Some people are saying Google's algorithm goes too far. Others are saying it doesn't go far enough.

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**Google's search algorithm is a complex, nuanced set of rules. Like any rule set intended to keep out the bad guys, it will also catch some of the good guys.**

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Google's search algorithm is a complex, nuanced set of rules. Like any rule set intended to keep out the bad guys, it will also catch some of the good guys. (Think of your spam filter as another example of this principle.) In fact, the entire search algorithm is a rule set that attempts to balance all of the competitive interests with the goal of getting users to the most appropriate and relevant content as quickly as possible.

In the past weeks, there have been a number of reports on how the algorithm change has affected larger sites:

- The Online Publishers Association claims that the change has shifted \$1 billion in annual revenue from sites whose ranking has dropped to sites whose ranking has risen.
- Traffic to sites belonging to the Online Publishers Association – whose members include About.com, Associated Press, and The Huffington Post – grew between 5 percent and 50 percent.
- The biggest reported winner is wikiHow, with a traffic increase of at least 79 percent.
- Mahalo.com announced an immediate 87 percent hit to its search traffic. Within days, the company laid off 10 percent of its staff.

The algorithm may not be perfect yet, but Google is a company that prides itself on iterations and agility. The only way for Google to make these iterations is based on feedback. If you feel that your site has been unfairly hit by Google's algorithm changes, the best way to appeal for special dispensation is through the “Requesting reconsideration of your site” page at Google Webmaster Central.

In the meantime, remember: Content is still king. Now more than ever, publishers need to focus on refining the quality of their sites to ensure that content is sufficiently fresh and useful. In the end, Google's focus on quality content is a win-win for site owners who want targeted visitors and for consumers who want real value from their online searches. I look forward to seeing how this continues to shake out. **IT**

*Joshua Bixby is president of Strangeloop (www.strangeloopnetworks.com), a technology company that provides website optimization solutions.*





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By Alan Murphy



## Managing the WAN Exostructure for Cloud SLAs

Last month I tackled the idea of WAN optimization for desktop virtualization and the many challenges that users face when their desktop is moved outside of their office

walls. Admittedly, virtual desktops that are centrally hosted off-site might be a stretch for many IT organizations, but the WAN and networking challenges that they will have to deal with for any off-premises virtualized solution are still applicable. In a nutshell, when you move something outside of the data center, you have to deal with the WAN. Nowhere does the WAN play a stronger role than in off-premises cloud computing.

By design, off-premises clouds are at the mercy of the WAN because they reside outside the walls of your data center and off the LAN. But also by design, and one of the major differentiators between cloud deployments and traditional hosted environments, is in most cloud architectures the off-premises infrastructure needs to be tied to your on-premises infrastructure; there needs to be some connectivity over the WAN between your data center and the cloud provider. No only do you have to deal with optimizing and managing data to and from your cloud provider (and users), but now you have to bring those issues in-house. I wish we had a term for this type of infrastructure that includes a WAN connectivity requirement, something like exostructure.

A great example of how applications rely on exostructure can be seen with applications that share messaging and/or metadata traffic with another application in the cloud. On the LAN – the networking infrastructure – the apps may be fine passing messaging traffic across a message bus with a sub-10 millisecond latency. When those applications are spread across a cloud, however, and that latency over the WAN – the networking exostructure – extends to 80 or 100 seconds, those applications may crumble.

As a user, I see this all the time with websites that request “Like” buttons from various external social media sites. It’s not uncommon for many of the news sites I read to get hung-up while loading in my browser because the sites are trying to make an external call to a social media property outside the scope of the application over the WAN. The apps don’t know any better: they make calls out, they get data in, they move through the queue.

The same could be said for enterprise users as well: We don’t know any better when an application moves in the cloud. To us, our CRM is accessed via a URL; it lives in our browser. But we certainly know when the application slows down, and we know on Friday it took one second to load a page but on Monday morning it jumped to four seconds to load that same page, and we call IT. These examples highlight the challenge of managing two new networks as part of the application exostructure: the WAN between the cloud provider and your data center, and the virtualized LAN that is part of the cloud infrastructure – two elements that are typically outside IT’s control.

As enterprise IT begins to embrace the ideas behind cloud computing – dynamic scale, pay-as-you-go, right-sizing – these details are what can define a successful move to the cloud vs. one that fails, possibly very publicly.

Whatever you call the exostructure, it is a critical part of any off-premises cloud solution and impacts two major WAN-dependent components of apps in the cloud: pushing and pulling massive amounts of application data to your cloud provider, and managing and control of the user experience for applications in the cloud environment. As explained above, both of these challenges are paramount to end users. Their user experience is based on how well they can exchange data with the application and how well that application can exchange data between various components. Together, those two issues

**It’s not uncommon for many of the news sites I read to get hung-up while loading in my browser because the sites are trying to make an external call to a social media property outside the scope of the application over the WAN.**

basically make up your application-level SLAs for the cloud. An app can go down for many reasons that have nothing to do with the actual application going offline, including latency introduced by the WAN. Having total transparency into all parts of the application and network in a cloud deployment should be a requirement for any enterprise IT department.

Although the components of the exostructure aren’t new – we’ve been dealing with the WAN for longer than I’ve been in IT, and the LAN components of a virtual network have been with us for nearly as long – how they work together as one unit and the requirements that we need to place on them for cloud computing are new. Cloud SLAs are based on user experience, which is based on application response over the WAN, which (among other things) is dictated by the LAN in the cloud provider and possibly the on-premises LAN for enterprise IT users. And all of that is part of the cloud exostructure. **IT**

*Alan Murphy is technical marketing manager of management and virtualization solutions with F5 Networks ([www.f5.com](http://www.f5.com)).*

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By Rich Tehrani & Max Schroeder



## Continuity Planning 101 – A Continuing Educational Series

### How Much Business Continuity Protection Is Enough?

The recent earthquake and tsunami in Japan continue to rein-

force the misconception that most business interruptions are caused by large natural disasters. Actually, most business interruptions are the result of more commonplace local events but can be just as disruptive.

A local power outage will shut down your office just as effectively as a major national disaster. New threats like cyber attacks have become a major factor in BC planning but the parallels are similar. A limited cyber attack targeting your company or your outsourced service providers would be as damaging as being part of a nationwide attack.

In early April of this year Deputy Defense Secretary William J. Lynn III warned that the United States is facing a new generation of cyber attacks. Comments like that bring into question the reliability of subscription services versus traditional customer premises solutions. This column has always taken the position that subscription-based services are an excellent choice for many companies seeking to reduce IT overhead plus acquire a BC solution in the bargain. Our position has not changed.

Subscription services like VoIP, FoIP and other SaaS solutions are quick to deploy, easy to maintain and provide an excellent cost-to-benefit ratio. Cloud solutions also provide workforce mobility so employees can be deployed over wide geographic areas using home offices to offset the local event factor. This is particularly critical for SMBs that may not have multiple company locations.

From a pure security perspective, the best subscription-based services are housed in secure, redundant data centers and include features like SAS 70 Type II compliance, 128-bit AES encryption, full 24 x 7 IT support, anti-virus and spam protection and many other desirable BC features. A comparable customer premises operation would be very expensive to deploy and maintain, plus the cost would place it out of the reach of most SMBs.

Going back to the title question of how much is enough: Theoretically, you can never have enough security, but all organizations have budget limitations, which is why subscription-based services remain a top choice for many organizations. **IT**

*Max Schroeder is senior vice president of FaxCore Inc. (www.faxcore.com) and managing director of the DPCF. Rich Tehrani is CEO and group editor-in-chief at TMC, and conference chairman of ITEXPO.*

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**Regulation Watch**

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By William B. Wilhelm and Jeffrey R. Strenkowski



## States Take a Closer Look at Fixed VoIP Services

Despite the FCC's broad finding in the 2004 Vonage

Order preempting state regulation of certain VoIP services, several states have recently started to challenge its applicability.

The Maine Public Utilities Commission, for example, recently found that the FCC's decision in the Vonage Order is limited to nomadic VoIP services where the location of the interconnected VoIP service user was difficult or impossible to determine. Where an interconnected VoIP provider knows its customer's location (i.e., the customer can only use the service in a single location), referred to as fixed VoIP, the Maine Commission hearing examiner found that the preemption provided by the Vonage Order is inapplicable. Several parties have appealed the Maine commission's decision to the Maine Supreme Judicial Court, with which the appeal remains pending.

Similarly, the Wisconsin Public Service Commission has opened a proceeding aimed at determining the appropriate level of regulation that should apply to fixed, interconnected VoIP services.

Other states are also beginning to legislate the regulation of fixed VoIP. Illinois, for example, recently passed a law giving the Illinois Commerce Commission oversight of fixed VoIP services, and the agency now requires registration by fixed VoIP service providers. While these regulatory activities currently primarily concern VoIP services offered by cable operators, the precedent established may signal a desire to expand state oversight into other forms of VoIP.

To the extent that state regulatory authorities are successful in their attempts to narrow the scope of the FCC's Vonage Order, fixed and other types of VoIP offerings could be subjected to state jurisdiction. Such an outcome could subject certain offerings to additional regulatory obligations including state certifications, prior approval of transfers of control and financing arrangements, and additional reporting requirements. **IT**

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

# SECOND THOUGHTS?

about the VoIP gateway decision



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Up to 30 calls	\$460	SN4960/1E30V SN4960/4E30V	SN4961/1E30V SN4961/4E30V
Up to 48 calls	\$750	SN4960/4E48V	SN4961/4E48V
Up to 60 calls	\$850	SN4960/4E60V	SN4961/4E60V
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By David Byrd



## IPv4 is Running on Empty

According to Latif Ladid, president of the IPv6 Forum, the IPv4 addresses managed by the Internet Assigned Numbers Authority were exhausted on Feb. 3. There are no more IPv4 address blocks available for allocation. The sky is not falling, numbers are not being hawked on street corners, and, yes, please step away from the ledge. The IP community has known of this impending event for years and has developed a solution referred to as IPv6.

In the simplest of terms, IPv6 is intended to resolve the issue of the world running out of IP addresses in 2011. IPv4 is based upon a 32-bit address scheme, whereas IPv6 uses 128 bits. The difference is dramatic. With IPv4, the Internet has a total IP address capacity of 4 billion unique addresses. In 1980 when IPv4 was released this seemed like a big number, as the engineering groups involved did not foresee the eventual growth that defines today's Internet. IPv6 represents  $3.4 \times 10^{38}$  or 340 trillion, trillion, trillion addresses. I think that might last the planet Earth for a while. Other elements of IPv6 include improved security, simpler processing, mobility features and multicast.

The five regional registries around the world do have IPv4 address blocks remaining for assignment. However, those blocks are expected to be depleted prior to the end of the year. As such, interest in participating in the Internet Society-promoted June 8 IPv6 Day, a 24-hour test drive of IPv6, is growing. Cisco, Comcast, Google, Vonage, Yahoo, Facebook and many other companies are expected to participate.

The transition to IPv6 will take decades. Therefore, for Broadvox and most Internet service providers' customers there will be no immediate impact, but the growing number of IP endpoints will affect ISPs, ITSPs and OEMs in short order. Consequently, service providers must begin deploying IPv6-compatible network elements this year or risk being unable to support new IP devices.

2012 may not be the end of life as we know it (Mayan calendar and Nostradamus enthusiasts relax); however, it will usher in a new phase for the Internet. **IT**

*David Byrd is executive vice president of sales and marketing at Broadvox ([www.broadvox.com](http://www.broadvox.com)).*

## E911 Watch

By Nick Maier



## Tracking the Location of IP Phones for E911 and Asset Management

One of the real advantages of H.323 and SIP phones is their ability to plug in anywhere on the enterprise voice network and get voice services. This has cost benefits in terms of labor overhead to move and administer phones. However, unless you have a strategy in place to keep the location of each phone up to date, this mobility can create serious problems in terms of Enhanced 911 protection – not to mention asset management.

There are two common methods to track the location of H.323 and SIP endpoints using the network: network regions and layer 2/port-level discovery. This month, I'll explain network regions, the most widely used method.

With network regions, the voice network is broken up into a series of geographically logical subnets (network regions), each with its own dedicated IP address range in the DHCP server. An example of this might be a 10-story building where each floor is its own network region. When an IP phone plugs into floor 10, it gets an IP address from the DHCP service for the network region on

floor 10. The PBX/call server or the E911 software can determine which network region the phone is located in by looking at its IP address upon registration. The PBX/call server/E911 software can then assign the appropriate emergency line information number so that if that phone dials 911, the correct ELIN is sent out and will display the caller's correct location to the public safety answering point dispatcher. Once the network regions are established, phones can move from region to region, and their location is automatically updated within seconds.

The primary benefit of using the network regions approach for your enterprise is that it's generally faster to implement as you're associating each phone with a logical geographic area. This approach is often more than sufficient for smaller organizations. For larger organizations, the added detail provided by adopting a layer 2/port-level discovery approach may not only be better, but necessary. **IT**

*Nick Maier is senior vice president of RedSky Technologies ([www.redskyE911.com](http://www.redskyE911.com)).*





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By Hunter Newby



## The Who, Will and When of Broadband

The Infrastructure Peering column is off to a great start in the mission to properly educate the masses one at a time and all at once. The last two articles covered the Why and How of Broadband, respectively, explaining what the real motivations are for towns, counties and countries around the world to invest in fiber infrastructure to create broadband and how, absent government funds, the investment is financed through a pure commercial model. Now that the components have been laid out they are more easily understood and acted upon. For those that have yet to take action it might help and add a little bit of motivation to take a look at some of the broadband speed statistics from around the world.

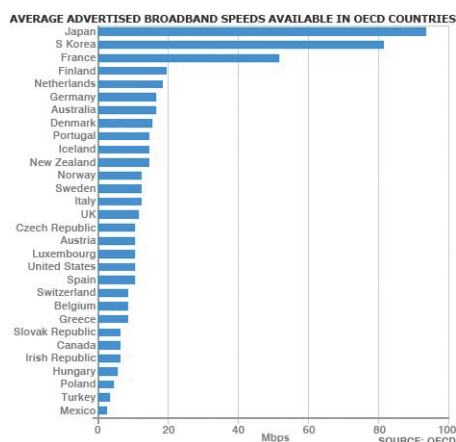
The Organization for Economic Cooperation and Development, based in Paris, keeps tabs on countries across a wide variety of issues including broadband. Over the past several years its ranking of countries based upon broadband speed statistics has become a trusted source that many rely on as a basis for their own views.

As noted on the OECD website, this organization provides a forum in which governments can share experiences and seek solutions to common problems.

"We work with governments to understand what drives economic, social and environmental change," the site says. "We measure

productivity and global flows of trade and investment.

We analyse and compare data to predict future trends. We set international standards on all sorts of things, from the safety of chemicals and nuclear power plants to the quality of cucumbers."



The above chart is based on advertised speeds. There have been some very public battles between providers in certain countries, specifically the U.K., where there have even been governmental pleas for honesty in advertising actual speeds, but this chart has served to place the United States in at best nineteenth place in the world in broadband speed. This chart is also a bit dated as some improvements have been made in the United States broadband speed department recently. But just as the U.S. advances, so does the rest of the world. and even more recent reports have the United States ranked 25, or lower. Generally speaking that is not so great, as perception is reality for most.

The truth is, though, that the statistics are very misleading. Average is also a term that is suspect as it only takes in to account the speeds that are advertised and then added together and divided by that number, and not the total area that those speeds are available in and the number of people that they cover. This concept is known as population density.

Fiber underpins all meaningful broadband networks, and the effective deployment of fiber in any given area is directly related to geography and population, or said another way, the cost to build and number of customers/revenue opportunities. To get a better, more accurate picture of where the United States actually ranks in terms of broadband speeds based on population density a whole new set of data is required.

Country	Size / KM SQ.	OECD Rank
USA	9,161,923	19
Australia	7,617,930	7
France	640,053	3
Sweden	449,964	13
Japan	374,744	1
Germany	357,021	6
Finland	337,030	4
Norway	307,442	12
Italy	294,020	14
New Zealand	268,021	11
UK	244,820	15
Iceland	103,000	10
South Korea	98,490	2
Portugal	91,951	9
Austria	82,444	17
Czech Republic	78,866	16
Denmark	43,094	8
Netherlands	41,526	5
Luxembourg	2,586	18

Country	Population	OECD Rank
USA	304,059,724	19
Japan	127,288,416	1
Germany	82,369,552	6
France	61,538,322	3
UK	60,843,912	15
Italy	58,145,320	14
South Korea	48,379,392	2
Australia	21,007,310	7
Netherlands	16,645,313	5
Portugal	10,676,910	9
Czech Republic	10,220,911	16
Sweden	9,045,389	13
Austria	8,205,533	17
Denmark	5,484,723	8
Finland	5,244,749	4
Norway	4,644,457	12
New Zealand	4,173,460	11
Luxembourg	496,006	18
Iceland	304,367	10

Source: CIA

These charts give a glimpse in to the real challenge the United States faces. Clearly the United States ranks in first place for overall size and first place for overall population towering above the other eighteen countries ahead of us on the OECD list. That is a lot of build cost to cover, but also a lot of revenue opportunity assuming 20 megabits per user at \$5 to \$10 per megabit per month. Even with the size and population disparity of the United States against the others on the list, the U.S. still has a respectable speed ranking. Probably the most misleading term of all is country. How can the United States be placed on a list of countries behind Luxembourg when the underlying principle is based on a physical infrastructure investment? It is nowhere near equal.

Making the reason and path clear for those that still need to create broadband networks is the key to opening up a logical investment of time and energy and spurring on those that have the will to put forth the effort now, or at least as soon as possible thus answering the who, will and when. **IT**

Hunter Newby is CEO of Allied Fiber ([www.alliedfiber.com](http://www.alliedfiber.com)).

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By Elaine Cascio



## Create a Compelling Customer Experience using History, Memory and Knowledge

By harnessing data, which we discussed in the last column, we're able to use it in smarter ways, providing intelligence across all channels and to our agents. Land's End is a great example of smart data use – you

can bet the agent will remember that you're calling to order something for your husband's birthday and ask if he liked the navy jacket you bought him last year.

The three keys to create a compelling customer experience are history, memory and knowledge.

### History

History is found in customer records, CRM data, marketing information such as segmentation data and in customer feedback. It enables us to identify customers and personalize our interactions with them, based on their order history, on transaction history, customer segment preferences and feedback.

### Memory

Memory helps us learn from past experience with a customer and understand customer preferences. We gather memory from all customer interactions – self service, with an agent, at a retail location. For example, does the customer frequently travel between Boston and San Francisco? Does he prefer an aisle seat?

Capturing and analyzing multi-channel data is also critical for memory. What did the customer most recently do on the web? Did he try other channels before he called the contact center?

### Knowledge

Knowledge, including what the Association for Voice Interaction Design calls situational awareness, provides external information that may affect the contact, such as weather information or stock market data. Knowledge is often critical to providing quick service and in making an emotional connection with a passenger who may miss a connection or an investor who may miss an opportunity. Knowledge also draws from internal knowledge and knowledge bases that are continually updated.

Using history, memory and knowledge as tools mean that you can create and maintain meaningful conversations with customers. This new customer engagement drives satisfaction, and more importantly, customer loyalty.

The conversations you have with customers should evolve, just as your business does. So make sure that you're measuring success and acting on what you find to take your customer experience to the next level. **IT**

*Elaine Cascio is a vice president at consulting firm Vanguard Communications Corp. ([www.vanguard.net](http://www.vanguard.net)).*

## Tech Score

By Jeff Hudgins



## Some Harsh Private Cloud Realities

The data center is a crucial part of today's society. Without it, the world would come to a grinding halt. Data center managers

are cautiously implementing private cloud computing by incrementally leveraging virtualization technology to automate the management and deployment of applications and workloads – a pragmatic way to transform utility computing with automation.

What gets data center executives excited about a private cloud initiative is the promise of instantly scalable resources at a lower cost. But what gets data center operations managers really excited is when they hear security breach or system outage. There are some harsh realities that exist for the data center operations managers that create a gap between promise and reality.

The first reality is the regulatory environment within the data center. Regulatory auditors are accustomed to doing things in a very safe manner. This creates the server-hugging data center manager, who believes he or she can trust the cloud, but must show the controls in place when managing customer and financial data. The result is a less agile implementation.

The second reality is limitation of virtual machine scaling to cover workload demands. Simply implementing virtualization technology in the network does not guarantee efficiency or redundancy. Recovering from a failure is hard, so operators tend to add and take away resources incrementally. This defeats the notion of instantly scalable.

The final reality is that cost. Data center managers are inherently conservative. The tendency is to provision the processing power and storage needs to peak workloads plus some design margin. The database administrator may also look to add additional margin to ensure uptime. This margin stacking drives up the cost and can wipe out any expected savings by moving to the cloud.

So what's the final score? Implementing a private cloud strategy can be scalable and cheaper, but unique automation tools are the critical link. These tools enable data center operations managers to provision when they need it and only what they need. Only then can they meet the performance and cost goals set by their data center execs. **IT**

*Jeff Hudgins is vice president of product management at NEI Inc. ([www.nei.com](http://www.nei.com)).*

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By Peter Radizeski



## Do You Want Fries With That?

A couple of years ago, conferencing was a side act in telecom. Not many agents sold it. Those that did kind of specialized in it. Today, it has gone a little main stream.

One reason is that the conferencing providers like Intercall and RollCall starting providing agents with extra tools that most CLECs did not: value propositions.

Conferencing was sold as an add-on service to your base of voice customers. Repeatedly, agents were reminded to check their base for conferencing opportunities. It was a real change of pace.

Today, cloud will certainly be sold like that.

Cloud is not really a replacement service like PRI or Internet bandwidth. Usually, there is on-premises software that is being substituted for software as a service, like office suites. E-mail has usually been hosted. And CRM has either been sitting dormant or not utilized.

Selling cloud services will be different than selling telecom or network. Agents will need to work their base for additional sales. Agents should understand that their greatest asset is their customer base. The new target is total telecom and IT spend of that base.

Before agents chased data or voice. More and more agents chased both. Conferencing was probably the first voice application in the cloud sold. It was sold like dessert by a waitress. "Oh, how was everything? Good. Did you save room for dessert because we offer conferencing now in three flavors – audio, video and web. How does that sound?"

Now agents will have to market to their base again with a new spiel. The questions will vary from "What software makes your office tick?" to "Do you have a server lurking about?" Agents have never asked that. Heck, Rackspace doesn't exactly cold call small businesses asking that either. And I don't know any agents that were selling hosted Exchange or a BlackBerry server. (VARs were.)

That's the new frontier: Asking your client base about other services that you offer. Your carriers have a wide breadth of services available from hosting to network to managed services to unified communications components. We'll just have to get used to asking clients if they want dessert. (Or, to be corny: Do they want fries with that T1?) **IT**

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

<http://tmcnet.com/58803.1>

### Cableco Turns On Indirect Channel

Comcast has launched an indirect channel sales program that will allow master agents and valued-added resellers to sell the company's services. Mike Saxby, chief strategy officer at TBI, comments: "The Comcast strategy has been very solid in the enterprise space and small business space, and Comcast probably thinks the partner community could really fill the mid-market opportunities." Comcast has contracted with TBI, which as a result has seen an "overwhelming and significant response," he adds.

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<http://tmcnet.com/58804.1>

### Print Outfit Seeks Resellers

DOCUWISE has launched its MPS Reseller program to meet the growing demand for managed print service solutions. The program will be geared toward managed service providers, VARs and service professionals. The company offers managed print solutions, from print device monitoring and print cost reduction analysis to complete

total cost of ownership programs. Offerings include laser printers, copiers, fax machines and plotters and multi-function devices, from all major brands. According to Gartner, the MPS market sector will grow between 20 and 30 percent annually through 2014.

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

<http://tmcnet.com/58805.1>

### X4 Sees Green with PAETEC

Master agent X4 Solutions says it finished 2010 as the second largest revenue producer in the country for PAETEC. X4 Solutions is one of the industry's largest master agencies, and offers agents a broad spectrum of products and services in voice and data, energy and back office software, backed by pre/post-sales support and agent service. X4 Solutions was chosen to be involved in the PAETEC National Partner Program in late 2009, making X4 one of only three master agents that have received that honor. The National Partner Program, which enables the participants to have a higher level of nationwide support, is among the most exclusive channel programs in the telecommunications industry and is reserved for

partners that always offer high levels of billing and production, and maintain an intensive business structure.

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

[www.x4communications.com](http://www.x4communications.com)

<http://tmcnet.com/58806.1>

### Tellemachus, Senetas Join Forces

Senetas Corp. Ltd. has announced the appointment of a new U.K.-based reseller, Tellemachus, and announced its success in winning a bid to secure an emergency services agency with Senetas encryption technology. As part of the winning Tellemachus solution, Senetas has shipped a consignment of CS100 Ethernet encryptors, designed to secure Layer 2 networks running at up to 100mbps. Tellemachus was established in 1994 by a group of IT professionals who brought together highly skilled expertise in a number of different fields. The company offers a complete service of consultation, design, development, deployment and the support of end-to-end IP surveillance networks and CCTV solutions.

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

[www.tellemachus.co.uk/](http://www.tellemachus.co.uk/)





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<http://session-border-controllers.tmcnet.com/>

<http://tmcnet.com/58808.1>

## Report: Intel Ready to Unveil Tablet

Intel Corp. is planning to unveil tablets based on its next generation Atom CPU dubbed Oak Trail, according to reports circulating in mid April. An Intel spokeswoman told PC Advisor that Oak Trail tablets were expected to start hitting shelves last month and throughout 2011. According to PC Advisor, Intel has specifically designed the single-core Z670 Oak Trail chip with capability of decoding high-definition videos, and also accelerating the playback of MPEG files in Windows Media Player. Also, tablets based on Oak Trail chips could offer up to 10 hours of battery life, depending on screen sizes and configurations, wrote PC Advisor.

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

<http://tmcnet.com/58809.1>

## ALU Unveils OpenTouch

Alcatel-Lucent has announced the launch of a new suite of communication solutions called OpenTouch. It leverages Genesys SIP Server and OmniPCX Enterprise solutions to deliver a converged and open architecture that supports multi-party, multi-device, and multimedia conversations for enterprises. As a result, enterprises can more easily harness the power of consumer communication innovations, including video, mobility and social media, to improve engagement with customers and employees, according to Alcatel-Lucent.

[www.alcatel-lucent.com](http://www.alcatel-lucent.com)

<http://tmcnet.com/58810.1>

## Report Discusses Collaboration Market

Synergy Research Group reports that the enterprise communications and collaboration market grew to \$22.3 billion in 2010. Avaya, Cisco, IBM, and Microsoft posted strong growth in this segment. The "Enterprise Communications & Collaboration Market Analysis" report finds that although top-line revenue growth was modest year over year, there were standout segments that grew six times faster than total growth. The fastest growing segments in 2010 were videoconferencing/telepresence systems, enterprise social networks, and collaborative workgroup software.

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

<http://tmcnet.com/58814.1>

## Government, Education Help Drive ShoreTel Growth



ShoreTel has recorded significant growth in the government and education verticals, with public-sector business now accounting for approximately 20 percent of ShoreTel's overall sales results. Officials with ShoreTel said that for the past two years, the company has seen close to 60 percent growth in business in this segment and has added hundreds of new customers from the government and education verticals. "Times are tough right now for public sector customers struggling with reduced budgets and fewer resources," says Troy Parish, national director, GOV programs at ShoreTel. "Effectively implementing newer, cutting-edge technology is now a critical element in helping government and education customers do more with less."

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

<http://tmcnet.com/58812.1>

## Interactive Intelligence to Create New Structure

Interactive Intelligence Inc., a global provider of unified IP business communications solutions, will ask shareholders at its 2011 annual shareholder meeting to vote on a proposal to reorganize the company as a holding company incorporated in Indiana. The primary objectives of the reorganization are to provide the company with enhanced strategic, operational, and financing flexibility, improve its ability to determine financial results and profitability of different lines of business, and better

manage tax expenses and exposure to liabilities. "In recent years we've made technology company acquisitions that have complemented our core IP business communications solutions, and extended our addressable market into new areas such as content management and accounts receivable management," says Interactive Intelligence founder, President and CEO, Dr. Donald E. Brown. "Our vision is to continue to evolve with similar acquisitions, and this reorganized company structure will enable us to make the best use of our overall infrastructure, while enabling each business to focus on its unique customer needs."

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

<http://tmcnet.com/58813.1>

## AT&T Goes to College

AT&T's Rave Campus Messenger provides an easy and effective way to send broadcast or targeted text, e-mail and recorded voice messages across a community. The solution even integrates to Facebook, offers RSS capabilities and works with public announcement systems. For text messaging, it offers the highest SMS messaging capacity in the industry, says the company, with the ability to transmit over 103,000 messages per minute and regularly observed production rates of over 49,000 messages per minute. The company is pushing this solution with the college set.

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

<http://tmcnet.com/58815.1>

## Broadvox, Jazinga Certified Interoperable

Jazinga's Unity 2000 IP PBX has earned interoperability certification from Broadvox. Jazinga, a Toronto, Canada-based provider of communications systems, offers solutions that are tailored for small businesses. Its Unity 2000 IP PBX, which is ideal for organizations with less than 50 people, is a corporate phone system featuring an easy-to-use user interface, simplified wizard installation and telephone set auto-configuration capability. The Unity 2000 IP PBX integrates data networking, traditional telephone service and low-cost SIP trunking service into a simple solution for small business.

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

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

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Point your browser to the URL above the story you wish to read.

<http://tmcnet.com/58816.1>

## ABI Talks VoD Gear Growth

From \$493 million in 2010 to \$591 million in 2016, the worldwide market for video-on-demand equipment is forecast to grow at more than 3 percent annually, while the CDN server market is expected to grow 4.3 percent from \$600 million to \$774 million, according to ABI Research. The firm notes that video-on-demand platforms have become more versatile and in demand as they have moved from transactional VoD (pay per view), to subscription VoD, catch-up TV and TV Everywhere platforms. ABI study practice director Jason Blackwell says: "CDNs have historically focused on delivery between operator networks. However, to facilitate the rapid growth of video, operators are installing CDNs within the footprint of their own networks."

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

<http://tmcnet.com/58817.1>

## IETF Addresses VIPR, UC, Streaming

The Internet Engineering Task Force at its meeting this spring addressed various issues, including how to connect IP communications islands, enable unified communications, and handle multiple media streams, according to Stefan Karapetkov, Polycom's emerging technologies director, who attended the event. The IETF's VIPR activities center on verifying call destination by using a basic phone call. Verification Involving PSTN Reachability, as Karapetkov explains, leverages the PSTN "to allow more voice to flow over IP and never cross the PSTN."

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

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

<http://tmcnet.com/58818.1>

## Dish Eats Blockbuster

Movie rental chain Blockbuster is now in the hands of Dish Network. After struggling with mismanagement, unsuccessfully competing with online movie rental companies like Netflix and eventually filing for bankruptcy, Blockbuster was sold to the satellite TV chain at a price of \$320 million. The Wall Street Journal reported that Dish's offer exceeded bids from a group led by investor Carl Icahn and from a hedge fund group led by Monarch Alternative Capital of New York. "While Blockbuster's business faces significant challenges, we look

forward to working with its employees to re-establish Blockbuster's brand as a leader in video entertainment," says Tom Cullen, head of sales, marketing and programming for Dish.

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

<http://tmcnet.com/58819.1>

## Growth Goals Drive M&A

AT&T's proposed acquisition of T-Mobile USA is but the latest in a series of acquisitions AT&T has made since about 1995, and perhaps only the most visible part of a broader merger wave that has been under way for at least that long. There are lots of reasons. Telecom is a scale business, favoring larger entities. But low rates of organic growth also are an issue. Put simply, telcos, both wired and wireless segments, are finding they cannot grow fast enough based strictly on internal and organic growth.

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

<http://tmcnet.com/58820.1>

## Changing the Channel on YouTube

Google plans a major overhaul of YouTube by creating so-called "channels" to compete with broadcast and cable TV. The effort is expected to cost as much as \$100 million. Once complete, the YouTube home page will highlight different channels focused on topics like arts and sports. About 20 of the channels will present several hours of original programming produced professionally each week, while other channels will use content already available on the site.

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

<http://tmcnet.com/58821.1>

## Level 3 Buys Global Crossing

Level 3 will take ownership of Global Crossing in a deal valued at \$3 billion, which includes Level 3's assumption of \$1.1 billion of Global Crossing's net debt. Level 3 Chief Executive Jim Crowe says the fit between the two companies' networks, services portfolios and customers has proven to be compelling.

[www.level3.com](http://www.level3.com)

<http://tmcnet.com/58822.1>

## Scrappy Granny Cuts the Cord

Survivability is a popular theme in the networking world, so it came as a big surprise when an elderly Georgian woman was

able to bring down the services of three wholesale Internet providers in Armenia. The lady, who faces jail time for property damage stemming from the incident, apparently sliced through an underground cable as she scavenged for scrap metal.

<http://tmcnet.com/58823.1>

## Metaswitch Snags Colibria



Colibria, an instant messaging and presence solutions provider, has been purchased by Metaswitch Networks. The deal dovetails nicely with the new Metaswitch Thrutu service and the company's efforts around social and contextual calling services. "Operators around the world have quickly come to realize that it is time to turn up the heat on their over-the-top competitors," says Kevin DeNuccio, CEO at Metaswitch. "The way people communicate is quickly evolving from just voice and text to a new, richer set of social interaction and contextual calling services. Metaswitch is in the middle of this transformation, helping service providers address these demands and putting their brand front and center in the new communications experience. Colibria technology will play a key role in making this happen."

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

<http://tmcnet.com/58824.1>

## Verizon Targets Content Owners

This July, Verizon is expected to introduce a digital media utility service to help advertising companies automate on-demand content delivery to TVs, smartphones and other mobile devices. The digital media services have been under wraps for close to three years now and are currently in a second phase beta test with nine different companies. Verizon Digital Media Services will automate previously manual workflow processes associated with formatting. As a result content owners and digital retailers will be able to more effectively produce, manage and distribute premium programming to consumers when, how and where they want to view it.

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

# The World's Premier “Pure” SIP/VoIP Based Call Recording Platform

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

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

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- ~ Call Recording Blog
- ~ Real-world Use Cases
- ~ Product Demos
- ~ Partner Spotlights
- ~ Expert Commentary

[\*\*http://call-recording.tmcnet.com\*\*](http://call-recording.tmcnet.com)

Powered By:



<http://tmcnet.com/58826.1>

### FCC Expands Open Mobile Rules

The Federal Communications Commission has voted 3-2 to require big wireless carriers to open their data networks to smaller regional operators and at reasonable prices. Existing voice roaming rules allow regional competitors to use the big carriers' networks for phone calls outside of their own service territories. But smaller wireless providers say they need to be able to offer nationwide data service to compete with the big boys. The ruling should improve wireless voice and data coverage in rural parts of the U.S., as well. The new rules are a direct response to the consolidation of the wireless carriers and the domination of the top two, AT&T and Verizon.

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

[www.fcc.gov](http://www.fcc.gov)

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

<http://tmcnet.com/58827.1>

### Ocean Star Brings MTN Aboard

MTN Satellite Communications will provide VSAT satellite communication, crew calling and Internet services aboard Ocean Star Cruises' first ship, the MV Ocean Star Pacific. MTN will be responsible for providing satellite communication services to guests and crew of the ship, which will sail from Manzanillo and Acapulco, starting April 10. The satellite communication services offered by MTN will also include OceanPhone crew calling, inbound dialing, and Internet services with complete Wi-Fi coverage. MTN offers services to 600 vessels and land-based terminals worldwide.

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

<http://tmcnet.com/58828.1>

### Island Utility Sticks with WebTech

Hawaii Electric Light Co. has renewed the Quadrant Enterprise service contract with WebTech for two more years. HELCO, a division of Hawaiian Electric Industries Inc., provides electric power to about 148,000 residents on the island of Hawaii. The Quadrant Enterprise service contract on renewal will help HELCO to continue equipping its

vehicle fleet with Quadrant Locators and introduce job management functionality using fully integrated Garmin in-vehicle navigation devices.

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

<http://tmcnet.com/58829.1>

### Satellite Outfit Forms Mobile Unit

U.S. Space has formed a mobile communication unit for providing mobile voice, data and video communications services to government agencies, including the Department of Defense and Homeland Security. Named U.S. Space Mobile Communications LLC, the division will enable the military to access the network in about 140 countries, including the strategically critical areas of Asia, Africa, the Middle East and many international waterways. Its network will cover 70 percent of the globe and a population of approximately 6 billion. Founded in 2009, U.S. Space LLC has been offering satellite communications service to the U.S. military through ViviSat.

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

<http://tmcnet.com/58830.1>

### Research Firm Talks LTE Spending

Mass deployment of LTE infrastructure has begun this year and will continue for the next three years. As a result, the spending on LTE infrastructure gear will expand to \$27.9 billion globally in 2014, up from just \$1.5 billion in 2010, according to market watcher IHS iSuppli's latest research. Initially, LTE infrastructure spending will occur in North America, which accounted for \$90 million out of \$97 million in global LTE spending in 2009 and nearly half of worldwide spending in 2010. This year, North America will make up \$1.7 billion of the projected \$3.8 billion spent globally on LTE infrastructure, notes the research firm. However, after 2011, spending will ramp up considerably in other regions, and North America's influence will dwindle to less than 20 percent of overall global spending, predicts IHS iSuppli.

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

<http://tmcnet.com/58831.1>

### Ovum Cracks 4G Misconceptions

Some believe LTE will not contrib-

ute much revenue between now and 2015. "Only 11 percent of mobile broadband subscribers are going to be on LTE networks by 2015, and LTE may not generate revenue growth," says Matt Walker, Ovum principal analyst. In Europe, spectrum auctions haven't even occurred, much less the construction of LTE networks. For those reasons, there will not be so much revenue opportunity in Europe. The United States is a different matter, though.

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

<http://tmcnet.com/58832.1>

### OTT VoIP Could Threaten WSPs

Mobile VoIP players such as Google, fring and Skype are forcing mobile operators to re-evaluate their current strategies to determine how consumers will embrace mobile VoIP over standard offerings. According to Analysys Mason, growth in OTT VoIP usage will increasingly come from mobile devices. At the end of 2010, roughly 87 percent of OTT VoIP subscriptions were fixed. This is expected to fall to roughly 60 percent at the end of 2015 as OTT players continue to build a mobile customer base supported by strong smartphone growth. To minimize the threat from OTT providers, operators will have to take action; some are expected to block VoIP on their networks.

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

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

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

<http://tmcnet.com/58833.1>

### IEEE Approves 802.16m

The IEEE-SA Standards Board has approved IEEE 802.16m. More than four years in the making, IEEE 802.16m is also known as the WirelessMAN-Advanced air interface and incorporates technologies such as multi-user MIMO, multicarrier operation, and cooperative communications. It supports femtocells, self-organizing networks and relays. Major worldwide governmental and industrial organizations, including ARIB, TTA and the WiMAX Forum, are adopting this standard.

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



# Optimum Business Introduces Business Savings Calculator

Cablevision Systems Corp. now offers the Optimum Business Savings Calculator, which was designed to help small businesses understand how much they can save on phone and Internet services with Optimum Business. The calculator is available at [www.OptimumBusiness.com/sc](http://www.OptimumBusiness.com/sc).

The tool offers calculations on percentage savings over the next two years on phone and Internet services; monthly charges for the first year and second year, compared to the existing providers' fees; and annual savings.

"In the past year alone, small businesses in the tri-state area have saved more than \$100 million by switching to Optimum Business for voice and Internet," says Stephanie Anderson, vice president of marketing for commercial services. "By offering an easy way to calculate savings with Optimum Business, we allow small businesses to see the actual impact on their bottom line and make an informed decision to join the growing number of businesses that rely on us to deliver premium services and value every day."

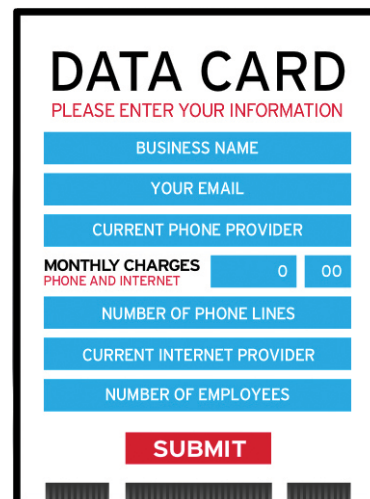
The company has launched a TV campaign showcasing Optimum Business customers and their experiences.

"Each customer's story is unique, and yet two key points are echoed again and again: savings and predictable pricing," says Anderson.

Small businesses report paying more than twice that of the average Optimum Business customer, according to Forrester.

Jerry Walsh, owner of Mayday Hardware of Brooklyn, comments that Optimum Business provides him with a consistent, easy to understand bill.

"This is a huge change from my previous provider who would send extremely long, hard to read bills that were never the same and beyond the comprehension for the



average business person," he says. "I'm a mom and pop small business. I'm also the chief, the cook and the bottle washer, but not a bookkeeper. I appreciate having a tool like the Optimum online Savings Calculator to determine the precise savings that I realized by switching to Optimum Business Services. Any business person can easily do the same thing. With more than \$2,000 in savings, I couldn't be happier, but Optimum Business has saved me something more valuable than money. They saved me time." **IT**

<http://tmcnet.com/58834.1>

## Cloud Outfit Unveils Cost Control Tool

Xigo has unveiled Xigo Now, a free self-service platform that helps organizations of all sizes reduce and control their telecommunications expenses. This application allows users to upload wireless bills and within minutes receive saving tips. Eric Goodness, research vice president of Gartner Inc., says that the research firm's customer reference surveys for the TEM Magic Quadrant indicate nearly 40 percent of respondents were on their second or third TEM provider, and 15 percent had used a handful of TEM providers in their pursuit for a quality vendor. "Given the opportunity costs associated with bid development and vendor selection and the switching costs if there is

vendor dissatisfaction, users need to be able to reduce the risks associated with conducting due diligence for TEM solutions," he says.

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

<http://tmcnet.com/58835.1>

## MINDBill Opens Online Store

MIND C.T.I. Ltd. announced the debut of the MINDBill Online Store module for mobile operators. MIND is a provider of convergent end-to-end billing and customer care solutions and telecom expense management solutions for service providers. With its online store module MIND tries to help operators attract consumers and increase subscriber retention. The MINDBill Online Store module enables an easy-to-navigate e-store that encompasses subscription, selection of device, acces-

sories, rate plans, contract terms and payment methods features.

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

<http://tmcnet.com/58836.1>

## Avotus Names New Leader

Avotus Corp. has appointed Sumer Shankardass CEO. The company specializes in providing telecom expense management services, e-procurement, and call accounting solutions to help clients manage their voice, data and converged communications spends. He served as executive vice president and global head of the Insurance and Healthcare Practice for WNS Global Services, a business process outsourcing company, most recently. Before assuming this office he worked as senior vice president and UK Insurance Practice Head at WNS.

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

# Google Offers Assurances That Android Will Remain Open

Recent new stories have brought into question the extent to which Android remains truly open source. According to reports from media outlets such as Bloomberg Businessweek, Google is now taking a firmer hand in controlling software tweaks, partnerships related to Android, and approvals. Google, which declined to be interviewed for this piece, is discounting all this.

Here's an excerpt from the above-mentioned story in late March: "Over the last couple of months Google has reached out to the major carriers and device makers backing its mobile operating system with a message: There will be no more willy-nilly tweaks to the software. No more partnerships formed outside of Google's purview. From now on, companies hoping to receive early access to Google's most up-to-date software will need approval of their plans. And they will seek that approval from Andy Rubin, the head of Google's Android group.

"This is the new reality described by about a dozen executives working at key companies in the Android ecosystem. Some of those affected include LG, Toshiba, Samsung, and even Facebook, which has been trying to develop an Android device. There have been enough run-ins to trigger complaints with the Justice Dept., according to a person familiar with the matter."

In an April 6 blog, Andy Rubin, vice president of engineering, responded by writing: "Recently, there's been a lot of misinformation in the press about Android and Google's role in supporting the ecosystem. I'm writing in the spirit of transparency and in an attempt to set the record straight. The Android community has grown tremendously since the launch of the first Android device in October 2008, but throughout we've remained committed to fostering the development of an open platform for the mobile industry and beyond."

Rubin goes on to write: "As always, device makers are free to modify Android to customize any range of features for Android devices. This enables device makers to support the unique and differentiating functionality of their products. If someone wishes to market a device as Android-compatible or include Google applications on the device, we do require the device to conform with some basic compatibility requirements. (After all, it would not



be realistic to expect Google applications – or any applications for that matter – to operate flawlessly across incompatible devices). Our 'anti-fragmentation' program has been in place since Android 1.0 and remains a priority for us to provide a great user experience for consumers and a consistent platform for developers. In fact, all of the founding members of the Open Handset Alliance agreed not to fragment Android when we first announced it in 2007. Our approach remains unchanged: there are no lock-downs or restrictions against customizing UIs. There are not, and never have been, any efforts to standardize the platform on any single chipset architecture."

The Google veep offers an assurance that Android will continue to be an open source platform and will continue releasing source code when it is ready.

"As I write this the Android team is still hard at work to bring all the new Honeycomb features to phones," he adds. "As soon as this work is completed, we'll publish the code. This temporary delay does not represent a change in strategy. We remain firmly committed to providing Android as an open source platform across many device types." **IT**

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## Managing Transition

For nearly a hundred years, the technology of telephony was relatively static. In the late eighties, the merging of "telephony" and "computing" created dynamic change. Computer Telephony Integration spurred innovations in adjacent technologies like Text-to-Speech, Automated Faxing and Speech Recognition. More disruption was then caused by rapid innovations in VoIP, Open Source Telephony and the move toward cloud-based communications.

By sponsoring communities in these technologies, Sangoma hopes to help as many companies as possible to navigate these rapidly evolving technologies:

- **The Asterisk Community** will serve to introduce new players to Open Source Telephony and advance innovative developments around that technology.
- **The IP PBX Community** will help those who are just now moving their Businesses and Enterprises from TDM-based technologies to an all IP-based infrastructure.
- **The IP Telephony Community** will serve as a resource for Developers, SMBs, Enterprises and Carriers who are looking for the most innovating and up-to-date information and solutions in this space.

**Learn how to manage the transition and visit these communities on TMCnet today!**

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# OpenStack Turns One

## Bringing Open Source to the Cloud

This summer marks the one-year anniversary of OpenStack, a cloud-focused open source effort initiated by Rackspace. Already OpenStack has seen 20,000 downloads, involvement from such major players as Cisco and Citrix, and deployments by enterprises and top-level service providers including Internap, KT and NT.

Jonathan Bryce, chairman of the project policy board for OpenStack, says the effort evolved out of software Rackspace used to run its private cloud services. Rackspace offers dedicated server, managed hosting and web hosting, and is a leader in cloud services, for which it has 100,000 customers. The company decided to open source the software in a move to increase adoption of cloud services as a whole, says Bryce, adding the bigger the pie the bigger the piece Rackspace can slice for itself.

However, just as Rackspace was readying to open its cloud source code, it heard that NASA had a similar effort under way with the Nebula cloud solution. So Rackspace joined forces with NASA under the umbrella of the cloud initiative now known as OpenStack.

Today about 60 companies are involved in OpenStack – either deploying or writing code based on it. And between 15 and 20 organizations, including Cisco and Citrix, have full-time developers dedicated to OpenStack. Bryce says OpenStack represents an “amazing community of technology experts” from different organizations around the world that are providing free software that can automate everything in a data center.

“That’s going to open up huge opportunities for innovation and to lower costs and to improve the state of data centers everywhere,” he adds.

Bryce says that while there were some cloud services out there before the launch of OpenStack, different players had different stacks and APIs, which was slowing down the adoption of cloud solutions because users didn’t give them the visibility and control they needed. He adds that customers also wanted to run cloud solutions inside their data centers on their networks, but a lot of available software wasn’t written at any kind of scale to allow for that. Also, some users wanted to leverage the public cloud for functions that weren’t required to be on site. The efforts related to OpenStack, he adds, address all of the above.

OpenStack on April 15 made available its third software release, called Cactus, which includes OpenStack Com-

pute, Object Storage and the Image Service. Cactus is the first release in which all three of those components are production ready, Bryce says, adding that when OpenStack started it didn’t have an image service at all.

The OpenStack Compute module controls virtual servers and supports hypervisors from Citrix, Microsoft, VMware and the KVM open source hypervisor, among others. And it does it in an automated way so it can scale.

Object Storage is a distributed storage system meant for massive volumes of data. It’s meant to be used for things like user-generated content, archives and backup for



### More on Cactus

Cactus brings stability, reliability, scale and performance for large-scale cloud deployments with more than 40 new features.

New features for OpenStack Compute include:

- support for all major virtualization/hypervisor technologies;
- live migration support for KVM, which enables users to move running virtual machines from one physical host to another;
- IPv6 support for flat networking; and
- new OpenStack API 1.1.

OpenStack Object Storage now has the ability to collect and serve data that enables integration of service provider solutions or internal charge backs.

And the new OpenStack Image Service, formerly a subproject called Glance, works as a discovery, public registration, and delivery service for virtual disk images. It now features security enhancements including image verification, as well as a new command line tool for a better user experience.



## Rackspace Q&A

By Paula Bernier

INTERNET TELEPHONY recently did a Q&A with Rackspace Hosting Inc. Here is our conversation with Robert Collazo, senior systems engineer.

### **Tell us about Rackspace.**

Collazo: Fanatical support has made Rackspace the world's leading specialist in the hosting and cloud computing industry. We deliver enterprise-level hosting services to businesses of all sizes and kinds around the world. We got started in 1998 and since have grown to serve more than 130,000 customers, including over 110,000 cloud computing customers. Rackspace integrates the industry's best technologies for each customer's specific need and delivers it as a service via the company's commitment to fanatical support. Our core products include managed hosting, cloud hosting and e-mail and apps. There are currently over 3,200 Rackers around the world serving our customers.

### **Gartner forecasts that cloud IaaS by the end of 2011 will account for almost 25 percent of the overall hosting market (excluding colocation and mass-market hosting). What does Rackspace offer in the IaaS vein?**

Collazo: Rackspace offers a product called Cloud Servers. With prices starting at \$0.015 per hour, it's very easy for our customers to deploy their applications or services using our IaaS product.

### **Verizon recently purchased Terremark. Both were leaders in cloud services. What does the deal mean for the industry? For customers?**

Collazo: Telecom and cable companies are at a point where they need to join the cloud game, or be left be-

hind. Some are trying to catch up through acquisitions. Customers will see increased competition and have to determine which company really fits their needs. The hard part will be distinguishing the telcom/cable cloud offerings from the telcom/cable traditional service standards.

### **How will this combination impact Rackspace?**

Collazo: Cloud innovation has come from nimble, independent specialist players, such as Rackspace. Cloud specialists, like Rackspace, will continue to lead the way in a market as fast-changing as this one.

### **What sort of new investments is Rackspace making to stay on top?**

Collazo: Rackspace is at scale, we are in the position to be the acquirer as evidenced by our recent acquisitions. We have made two acquisitions recently. CloudKick, a hosted SaaS platform, provides fast setup, high availability, monitoring from multiple Internet locations, which allows customers to concentrate on their core business instead of setting up and maintaining monitoring systems. We also have acquired the software developer Anso Labs to help build up the OpenStack cloud computing project.

### **What's next for the cloud?**

Collazo: As the industry continues to mature, I think we will see more SaaS offerings built on different provider's IaaS offerings. Businesses will continue to develop their products on offerings like Rackspace Cloud Servers because they know they can get better ROI using the IaaS offerings of Rackspace.

large volumes of data, but without the need to pay a premium for Fibre Channel storage. This software runs on a set of servers and replicates software to different servers, so users can enjoy the benefits of using low-cost, commodity hardware, but with affordable reliability.

OpenStack Image Service, meanwhile, ties together compute and object stor-

age. It can take snapshots of running virtual machines and use that to do back up or to configure other servers the same way.

Next month OpenStack expects to introduce another release; this one will be called Diablo. It marks the move of OpenStack beyond just virtual computing and into the area of networking. Specifically, vendors of network-

ing gear such as routers and switches will, as part of the OpenStack Diablo effort, present APIs in their hardware to let users dynamically configure VLANs, set QoS and otherwise do traffic management.

Diablo was expected to be discussed in more detail at the OpenStack Design Summit April 26 to 29 in Santa Clara, Calif. **IT**

# Vonage Finds Its Footing

**T**he communications industry has been on a wild ride for many years now, but few companies have been through as many ups and downs as Vonage.

After effectively creating the market for residential VoIP through a popular media campaign that educated consumers about the benefits of this type of service, and later struggling with some high profile legal problems, an abysmal IPO, and then financial issues and low stock values, Vonage appears to have attained firm footing.

The company, whose stock had fallen to 33 cents at one point, now trades in the \$4 to \$6 range. That's still well below the \$17 per share price at which it was first sold to the public in 2006, but it's a nice improvement from where it was recently. In fact, BESPOKE Investment Group in April 2011 noted that Vonage (which at \$5.15 per share was up 129.91 percent at the time) ranked No. 4 among the top performing Russell 3000 stocks.

Vonage CEO Marc Lefar says the VoIP services provider has had an extraordinary operational and financial turnaround over the last three years, with record cash flow, record EBITDA and increasing per customer revenue (up more than 8 percent over the past three years).

The company, which had record high positive EBITDA in 13 of the last 14 quarters, last month reported its financial performance for the first quarter of 2011. EBITDA for the quarter was \$43 million, up \$3 million from the same quarter last year and \$2 million better than last quarter. Based on that, Vonage now expects to reach EBITDA of \$165 million (rather than the initial guidance of more than \$156 million) in 2011. Its income from operations was \$30 million in the first quarter of 2011, which is up from \$25 million a year ago and above the \$26 million reported last quarter. Vonage also had record high net income of \$21 million, or \$0.10 per share; that's an improvement from net income of \$14 million in the first quarter of 2010, and up from a net loss of \$42 million, or \$0.19 sequentially, which included \$58 million in one-time adjustments.

"Vonage continued to deliver strong financial results as we generated record high EBITDA and net income," says Lefar. "We improved average revenue per user,

A portrait of Marc Lefar, CEO of Vonage. He is a middle-aged man with short brown hair, smiling at the camera. He is wearing a dark blue pinstriped suit jacket over a light blue button-down shirt. He is holding a pair of glasses in his right hand. The background is plain white.

CEO Marc Lefar

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“Vonage continued to deliver strong financial results as we generated record high EBITDA and net income. We improved average revenue per user, reduced costs and continued to deliver on our strategy to penetrate international calling segments.”

– Vonage CEO Marc Lefar

reduced costs and continued to deliver on our strategy to penetrate international calling segments.”

This follows record high financial results for 2010 that included adjusted EBITDA of \$156 million and income from operations of \$95 million, up 31 percent and 66 percent over the prior year, respectively.

Having refinanced its debt in December 2010 Vonage was able to get a \$200 million term loan at an interest rate that is less than half (\$26 million vs. \$49 million) of what it was paying previously. And the company last month revealed that it's ahead of schedule in paying down that debt.

“Our strong cash flow enabled us to prepay \$20 million in debt; and we expect to make another \$30 million in voluntary prepayments by year end, resulting in annual interest savings of nearly \$5 million,” Lefar reports. “Combined with scheduled amortization of \$20 million, we expect term debt to be \$130 million at the end of 2011.”

Despite all of the company's trials and tribulations, some industry watchers never lost faith in Vonage. A 2008 Wired Magazine article quoted Patrick Monaghan, a Yankee Group analyst, as saying: “Vonage is like Rocky Balboa: They get beat down and get back up. Their chances of turning around are very good.”

And after Vonage reported its first-ever profit in the first quarter of 2009, analysts like Roger Entner began singing the praises of Lefar, who took over as Vonage CEO in 2008.

“He has really put them on the smart growth program, because before, they were growing to the point of bankruptcy,” the Nielsen analyst was quoted in a story last year as saying. “Hats off – not a lot of people would have thought that would have happened.”

Lefar tells INTERNET TELEPHONY that the cost of customer acquisition at Vonage continues to come down and

the company is still adding subscribers. In the fourth quarter of 2010, Vonage added 6,000 new lines, the first quarterly subscriber gain it had in more than two years. Meanwhile, it reduced customer churn by 2.4 percent. In the first quarter of this year, which was the fourth consecutive quarter of increasing gross line additions, Vonage reported 3,000 net line additions, up from a loss of 26,000 lines in the year-ago quarter and down from 6,000 net line additions sequentially. And while lower value customers are leaving, Lefar says Vonage has been able to keep most of its higher value customers.

The vast majority of Vonage customers today fall into the residential and small home/small office category, although it does serve some small businesses, generally those with less than 10 lines. Lefar says Vonage gets a good number of its domestic callers as a result of those users' frustration with the price and value offered by incumbent telcos and cablecos. He adds that Vonage is able to avoid pricing compression by offering a full suite of features, including unlimited visual voicemail and unlimited information services, with its services.

### World Outlook

In an effort to drive top line revenues, Vonage about a year and a half ago shifted its focus from domestic home phone services to the international outbound long-distance market.

VoIP can seriously disrupt the international roaming market, Lefar says, given 70 percent of international long-distance users spend three to four times to complete calls on wireline and wireless networks as they would have to pay using Vonage service.

To address that opportunity, the company more than a year ago launched Vonage World, a flat-rate calling program to more than 60 countries. In late April the company turned up Vonage World Premium, an upsell service to the original Vonage World.

More than 1 million customers now use Vonage World, with 25 percent of the company's customer base actively making interna-



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tional calls (vs. just 5 percent two and a half years ago), says Lefar. He adds that the service can support the use of traditional handsets, and includes 911 and number porting capabilities, which Lefar says is not offered by most non-traditional voice providers.

"In 2011 and 2012 we expect meaningful expansion beyond the U.S.," says Lefar, adding that ethnic populations are Vonage's new bread and butter.

Asian Indians were the strongest adopters of the Vonage World service initially, and the company since has moved to expand its success with other ethnicities. Last year Vonage focused its efforts on winning Hispanic subscribers. To do so, Vonage launched a campaign that delivers what Lefar says is a 360-degree Spanish experience. That includes creating and supporting marketing efforts, call centers, web sites and services in Spanish. That's key given almost 30 percent of Vonage's incoming prospects prefer to do business with the company in Spanish, Lefar emphasizes.

Vonage also recently launched a calling plan for the Philippines. And the company expects to continue its international expansion, with an eye toward Central and South America and select locations in the Far East – assessing expansion into select markets based on their broadband access, Wi-Fi-based device penetration, economic factors, and regulatory environment relative to VoIP.

"Our increased marketing focus on the Hispanic segment where we provide in language sales and service drove an increase in account starts for the second consecutive quarter," Lefar said in his comments about the company's first quarter 2011 results. "Asian Indian subscribers continue to be a loyal and growing portion of our business, and growth in Canada continued with [gross line addition] increases sequentially and versus the year ago period.

"Our launch of an unlimited plan for the Philippines drove strong press attention; however, the retail price of \$64.99 made necessary by unusually high termination rates has proven to be a barrier to broad adoption," he added. "We are considering alternative offers to address the ongoing needs of this heavy calling segment."

### Vonage Unplugged

It's no surprise that mobile is another new area of focus for Vonage.

Lefar made that clear last summer when he mentioned that devices like the iPad would help "speed the digital phone company's recovery," as Bloomberg put it.

Given Lefar is a telco veteran who helped engineer AT&T's exclusive deal for the iPhone, he appears well positioned to help Vonage move forward on the mobile opportunity.

The same June 2010 Bloomberg story noted Vonage's stated interest in potentially joining forces with a software

or phone company as part of the new mobile strategy. Of course, that led to speculation that an acquisition might be forthcoming. But while there'd been no news as of May of any merger or acquisition action related to Vonage, Lefar tells INTERNET TELEPHONY that the company had \$87 million cash on hand as of Dec. 31 and is considering acquisitions. As of March 31, 2011, Vonage's cash, cash equivalents and restricted cash totaled \$87 million; unrestricted cash was \$80 million; and free cash flow was \$13 million, up from \$3 million sequentially.

Vonage, Lefar says, is primarily interested in acquiring properties with unique technology, or unique mobile engineering or mobile development assets. Lefar adds that Vonage recently opened an R&D lab in Tel Aviv focused on mobile apps. And last year at about this time the company hired on Amichay Oren, founder of a software company called Expression Inc. that was acquired by SAP AG, as vice president of research and development. Located in Tel Aviv, Oren leads Vonage's technology teams in Holmdel, N.J., and the Israel location.

As Lefar notes, mobile international calling is an area of great frustration for people who call overseas. Vonage, he says, is trying to help simplify that process.

The company came out with a mobile phone app for international long-distance outbound more than a year ago. That's available for Android, BlackBerry and iPhone devices. Additionally, this spring Vonage unveiled a mobile rate plan on terminating locations.

Vonage also plans to introduce an extension service to enable subscribers to use their Vonage plans from multiple numbers – mobile and/or wireline.

### View on Video

While video has become a hot topic of discussion in the communications space, and an area that many of the top service providers and their equipment vendors are moving to address, this subject elicits only a lukewarm response from Lefar.

The Vonage network can support video, he says, but the real question is whether video can be monetized, particularly when broadband operators begin charging by the megabyte.

Video may be part of the services Vonage offers, Lefar continues, but the company doesn't see a consumer willingness to pay for video communications, which is essentially free on a PC-to-PC basis. Lefar goes on to note that Vonage's market research studies indicate that the minute a company starts to charge resident consumers even modest amount for video, utilization drops by more than 90 percent.

That said, Vonage believes its best bet is to focus on voice and messaging solutions, and all forms of international calling, including international roaming, says Lefar. **IT**



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# New Funding, TV-based Solution Could Expand netTALK's Horizons

The move to IP radically changed the telephone business, lowering barriers to those that want to offer voice solutions. Now the same thing is happening with video programming.

Takis Kyriakides says his company, netTALK, is among the companies that is benefitting – and helps consumers benefit – from this shift in the phone services world. And now it's working to do the same in the TV-based content delivery business.

The company is best known for netTALK DUO. Kyriakides compares the netTALK solution to the popular magicJack. The netTALK DUO, however, doesn't require the use of a computer, as does the magicJack solution, he says. And netTALK has CLEC status, which means it has porting capabilities, so its customers can keep their existing phone numbers even as they drop their existing phone service and move to netTALK. (It also means that the legal issues that magicJack is grappling with as a result of its court battle with AT&T won't affect netTALK.)

The netTALK solution includes local and long-distance phone service within North America; a U.S. phone number; call waiting, three-way calling and caller ID; voicemail to e-mail; 411 and enhanced 911 services; priority call forwarding; a customer portal; and technical support.

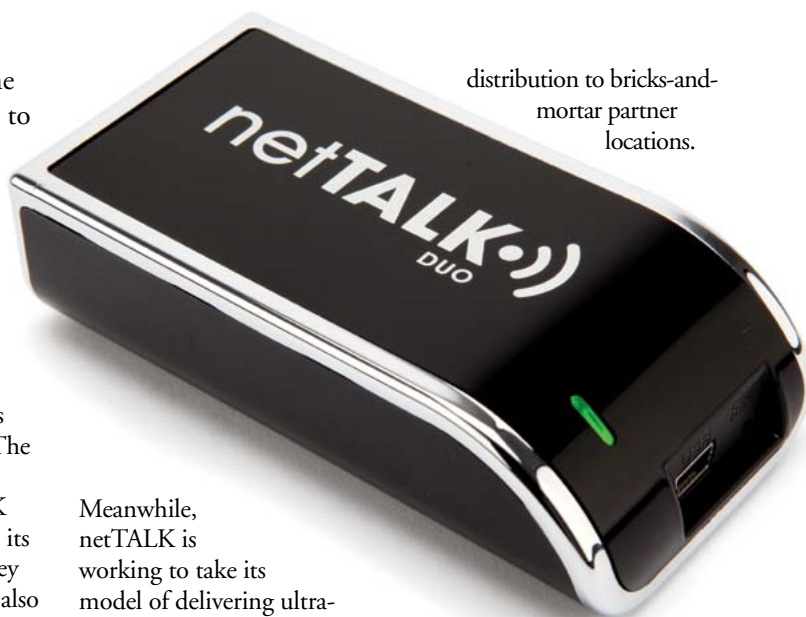
Nearly 400,000 customers (excluding softphone customers, which adds another half million, according to Kyriakides) in the U.S. and Canada rely on netTALK DUO for their voice services. The device sells for \$69 and includes the first year of service; after that, the service sells for \$29.95 per year.

The Florida-based company's VoIP app was the No. 1 seller in the Social Networking category on iTunes Canada and the No. 1 seller in the Telephones category on AMAZON.CA. And the company in mid April announced that its netTALK DUO VoIP device and digital phone service are now being sold at Dell.com.

"Not only is Dell.com one of the largest Internet retailers, it is also one of the best channels for the netTALK DUO," says Kyriakides. "Dell.com reaches an informed customer who seeks value, a perfect match for the incredible value, call clarity and unmatched customer service of the netTALK DUO."

While two-year-old netTALK has traditionally relied on online channels to market and sell its product and related services, the publicly-traded company recently raised \$2.5 million from an existing investor to market its products more widely and to expand its

distribution to bricks-and-mortar partner locations.



Meanwhile, netTALK is working to take its model of delivering ultra-low-cost phone services and applying it to TV services.

"I complain with my DirecTV that I have to pay \$150," says Kyriakides, adding that netTALK plans to unveil consumer video products that address the current state of the economy.

"We're never going to be a one-product company," he adds.

The company signaled that intention earlier this year when it unveiled netTALK TV at the Consumer Electronics Show. The Wi-Fi enabled device, which can work in conjunction with netTALK DUO, is a set-top box of sorts. Kyriakides says the solution, which will sell for approximately \$50 a year, will give customers a choice of about 10 to 15 channels. The idea is to allow customers to select and pay for only the content they want, he says, rather than requiring them to buy content bundles as the cable TV, DBS and telco TV providers currently do.

When asked whether netTALK has or is trying to get cable TV franchises as part of the effort, Kyriakides told INTERNET TELEPHONY that the company has hired an attorney in Washington to "work toward certain licenses." The company is "positioning itself with different licenses to circumvent problems" like access to content, he says.

Noting that the Roku box has sold 1 million units in a short period of time, Kyriakides comments: "The same thing that happened to VoIP, it's happening to the television. Now the walls are coming down." ■



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## In-Flight Wi-Fi Ready for Takeoff

In-flight broadband got off to a rough start. After reaching 30,000 feet early on, Boeing grounded its Connexion service in August of 2006. But don't fold up your tray tables just yet. These days broadband on commercial aircraft is on the rise.

The number of airplanes on which broadband services is offered continues to increase. Connections are set to get faster. And coverage is getting better due to the growing use of satellite technology.

The biggest provider of in-flight Wi-Fi appears to be Aircell. At least 1,100 planes with nine airlines are outfitted with the company's Gogo solution. And it's currently installing its gear at a clip of 1.5 airplanes a day. An estimated 202 million passengers will board Gogo-enabled flights in 2011.

Gogo Wi-Fi pricing starts at \$4.95 for up to an hour and a half of connectivity. There's a 24-hour pass that sells for around \$12 for those with connecting flights; an unlimited package for \$34.95; and a \$49.95 option allowing six Wi-Fi sessions on multiple airlines served by Aircell. Users can purchase the services while in flight or from anywhere via the company's website.

Aircell declines to provide flyer take rates or the business model (and whether it involves revenue sharing with the airlines) on its services, but Aircell says usage is extremely promising and comments that the availability of Wi-Fi is causing some flyers to select flights and/or airlines based on that broadband availability.

The service is apparently popular enough that Aircell has been able to attract Google to use its portal as a way to advertise its Chrome product. Google "owned" the Gogo portals on Airtran, Delta and Virgin America last year and offered passengers free Wi-Fi as part of the campaign. Aircell expects to do more of these kinds of promotional partnerships in the future.

Currently Gogo offers 3.1mbps of shared bandwidth per airplane using an air-to-ground, or ATG, solution. In the first half of 2012 Aircell plans launch services based on ATG-4



technology, which will quadruple the amount of bandwidth within Gogo-equipped airplanes. The move to ATG-4 entails adding directional antenna, dual modem and EV-DO Rev. B technologies to existing ATG systems.

As of late April, all of the planes with Aircell's service did U.S. routes only. But the company and its airline partners are working to make Gogo available on international flights as well. The international expansion, which calls for three aircraft per day to be outfitted with Gogo gear this year, is being supported by \$35 million in financing Aircell closed in March.

Of course, transoceanic flights call for a different solution, given air-to-ground architectures are not an option when a plane is flying over an ocean. So Aircell plans to use Ka-band satellite on transoceanic flights starting in 2015.

The same satellite technology can be leveraged to supplement capacity on Aircell's ATG and ATG-4 systems. Aircell expects Ka satellite – which can support speeds of 100mbps – to be in use for Gogo-equipped continental U.S. flights starting in 2013.

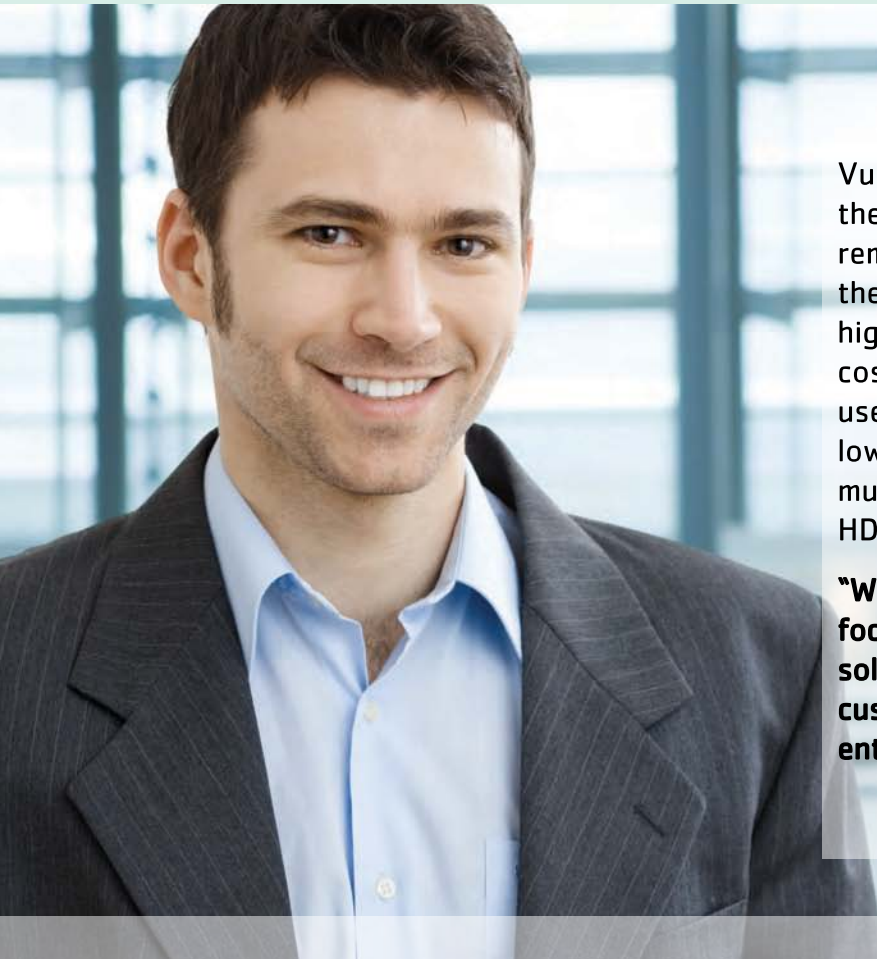
While Aircell offers its Gogo services on Air Canada, AirTran, Alaska Airlines, American Airlines, Delta, Frontier, United, US Airways and Virgin America flights, one big account that it doesn't own is Southwest Airlines. A company called Row 44 Inc. services

the fleets of Southwest Airlines and Norwegian Air Shuttle.

Row 44 currently offers service in North America, Europe and the Middle East, and is in the midst of expanding its service to the Caribbean, Mexico, North Atlantic and Russia. All of the above Wi-Fi services rely on satellite communications. And the company in April announced plans to expand its coverage

**The biggest provider of in-flight Wi-Fi appears to be Aircell. At least 1,100 planes with nine airlines are outfitted with the company's Gogo solution.**

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across the globe by combining Hughes's HX modem platform with Intelsat's IS fleet of Ku-band satellites.

"Row 44 continues to execute on our mission of helping airlines around the world provide an unparalleled in-flight broadband entertainment experience to their passengers," says Row 44 President Gregg Fialcowitz. "Offering this extended coverage through two of the world's largest and most trusted names in satellite broadband – Intelsat and Hughes – ensures our future ability to deliver that premium experience to our airline partners and their passengers, no matter where in the world they fly."

The Row 44 website says the company also is looking at Ka-band solutions, but adds that Ka-based gear and satellites are not yet available.

However, JetBlue recently announced it is working with ViaSat Inc. to use Ka-band satellite technology to outfit more than 160 planes. The first installations are planned to begin next year.

"Because the product will be the first of its kind for commercial aviation, the system must be tested and certificated by the Federal Aviation Administration prior to installation fleet-wide, a process that will be led by LiveTV, JetBlue's wholly-owned subsidiary," according to a JetBlue press release.

This is JetBlue's second pass at onboard broadband. Its previously announced solution, Kiteline, reportedly was available only on one JetBlue aircraft, BetaBlue. Continental Airlines also had announced its intentions to use Kiteline, but those plans were delayed last year and, evidently, were grounded. Continental became part of United Airlines – a Gogo customer – in a \$3 billion merger announced a year ago last month. **IT**

## More About Aircell's Gogo

- Gogo is available on 1,100 commercial aircraft.
- Aircell is averaging 1.5 new Gogo installed commercial airline aircraft per day in 2011.
- Air Canada has two planes using Gogo.
- AirTran has 140 planes – its full fleet – equipped with the service.
- Alaska Airlines has 93 planes online with the service.
- American Airlines has 206 Gogo-ready planes.
- Delta has 556 – its full Mainline fleet – equipped with the service. And it's deploying Gogo on more than 220 Delta RJs over the course of 2011, for a total of over 770 DL Gogo-installed jets by the end of 2011.
- Frontier expects to have STC approval for the solution soon with the expectation of launching Gogo on its entire Embraer fleet by the end of this month.
- United has Gogo on 13 planes.
- US Airways has the Aircell service on 51 of its aircrafts.
- And all 37 of the Virgin America planes are Gogo-enabled.

A company called Row 44 Inc. provides in-flight Wi-Fi services to the fleets of Southwest Airlines and Norwegian Air Shuttle.





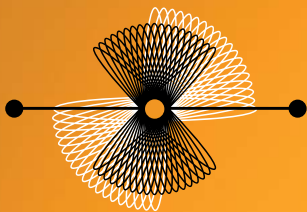
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# Time for Business Video

## No. 1-Ranked BT Conferencing Explains Why

**B**T Conferencing was identified as the No. 1 telepresence and videoconferencing managed service provider this spring by ABI Research, which made its rankings based on implementation and innovation criteria.

Videoconferencing managed services specialist Glowpoint came in second. AT&T ranked third.

“BT Conferencing combines its capabilities in network provisioning and management, and in telepresence managed services, to deliver a compelling value proposition to enterprises looking to deploy pervasive video,” says Subha

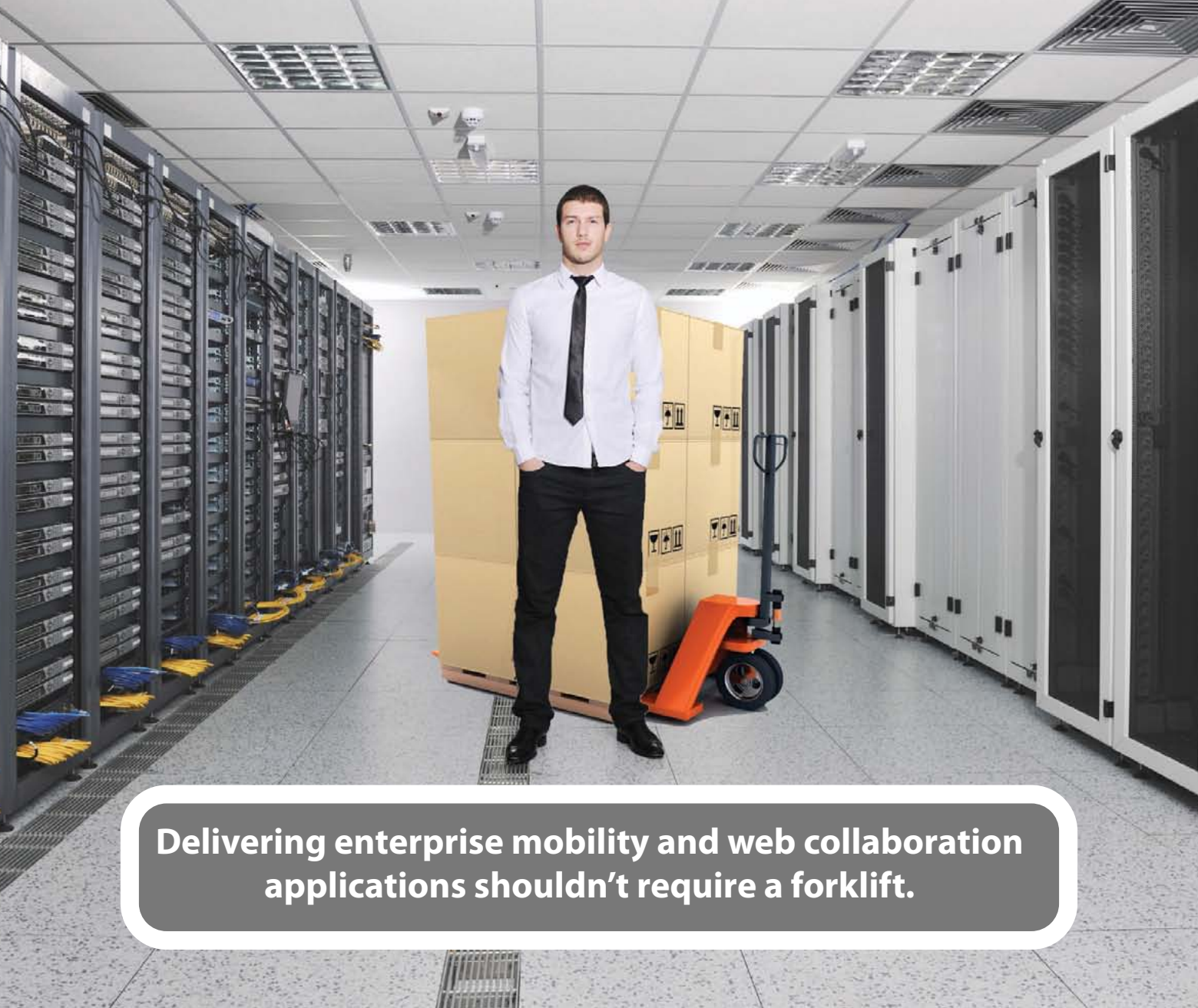
Rama, a senior analyst at ABI Research. “The Wire One acquisition and the synergies with BT Global Services have helped build a comprehensive services portfolio.”

BT had a fledgling videoconferencing business earlier this decade, but it moved into the space full force with its 2008 acquisition of Wire One, which was the leader in videoconferencing globally, both from a product resale and managed services standpoint, BT Conferencing CEO Jeff Prestel tells INTERNET TELEPHONY.

He says BT Conferencing was named the No. 1 teleconferencing provider by ABI Research for its large installed base (800 systems installed and more than 1,100 managed); its high







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customer satisfaction; and its broad availability of options for videoconferencing, which it offers as a managed service, from the cloud, and in hybrid architectures.

“We have, I believe, the most telepresence [systems] installed on the globe, and we get highest marks for quality and customer satisfaction,” says Prestel.

nications Magazine, a sister publication to INTERNET TELEPHONY, BT and AT&T were the first companies in the industry to launch inter-carrier telepresence.

“This is an exciting development – it’s like the early days of telephone exchanges, but for video,” Marc Hambley, senior product manager at BT Conferencing, commented in that

## BT expects to launch this month or next interoperability that will allow its customers to communicate between systems from Cisco, Polycom, Tandberg and LifeSize.

The CEO also points to the “innovative” tools BT Conferencing offers to allow customers to launch videoconferences easily, on the fly and without pre-scheduling hassles.

Prestel says that the company is seeing double-digit growth year over year for business video services. Now that businesses are starting to free up their capital expenditures, he adds, we’re in the midst of a transformation in which technology is changing the way business is conducted – and video, he says, is at the heart of this transformation.

For example, he says, Pepsi last year moved from a HP Halo solution to a Cisco TelePresence one. The food and beverage company is now one of the largest users of Cisco TelePresence because BT showed it the ROI and how it could use the technology to work more closely with its distribution and supply chains.

He adds that getting a business video solution used to be like buying a Cadillac – you could do it, but you had to pay a premium. Today, however, business video is becoming more mainstream, so there’s a push to lower costs.

“It will, however, by no means get commoditized,” he says.

Dropping costs, and new interoperability and video peering initiatives, are also expected to drive the broader uptake of business video.

BT Conferencing has been on the forefront of all this. As discussed in the February issue of Unified Commu-

piece. “Letting customers communicate via telepresence outside their own enterprise helps them maximize business benefit and more quickly realize ROI. I believe this will be a big boost to video.”

Prestel notes that BT Conferencing has two major exchanges, one in Denver and one in London; AT&T has a single U.S. exchange; and Tata – which has since come into partnership with the two companies on inter-carrier exchange – has two exchanges, one in the U.S. and one in India. Those exchanges allow customers to communicate via a secure VPN, so they can talk between carriers and countries, he explains. Prestel adds that three other carriers are likely to be added into the mix in short order.

That is an important step toward enabling video communications anywhere to anyone, says Prestel. The next step, he adds, is to enable video communications on any system.

In line with that, BT expects to launch this month or next interoperability that will allow its customers to communicate between systems from Cisco, Polycom, Tandberg and LifeSize.

And while Prestel says that products like Apple FaceTime and Skype video are not yet up to snuff for enterprise use, he says the quality of such solutions is getting better and is likely to become a bigger part of business video, especially for remote users. Maybe that’s why LifeSize recently announced integration with Skype, he adds. **IT**

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# Extending Videoconferencing from the Boardroom to the Masses

Videoconferencing is emerging as a valuable collaboration tool in conducting global group communications. The challenge is that many of today's videoconference solutions are often found either within an enterprise virtual private network using premium-priced HD or telepresence equipment, or being used between participants with identical, often proprietary, video application software (i.e. FaceTime or Skype). So what can be done to extend customized video communications beyond these islands of capability to the broader user base (i.e. suppliers, customers and road warriors) supporting heterogeneous devices with varying bandwidth? What does the industry need to achieve to offer this kind of ubiquitous videoconferencing service to the masses?

## Mass Market Adoption Challenges

Video services look best with lots of bandwidth; however, this limits the user base to smartphones and desktop users with broadband IP connections. And, as more bandwidth costs more money, service providers find it difficult to get users to accept premium price points for videoconferencing when compared to audio conferencing services.

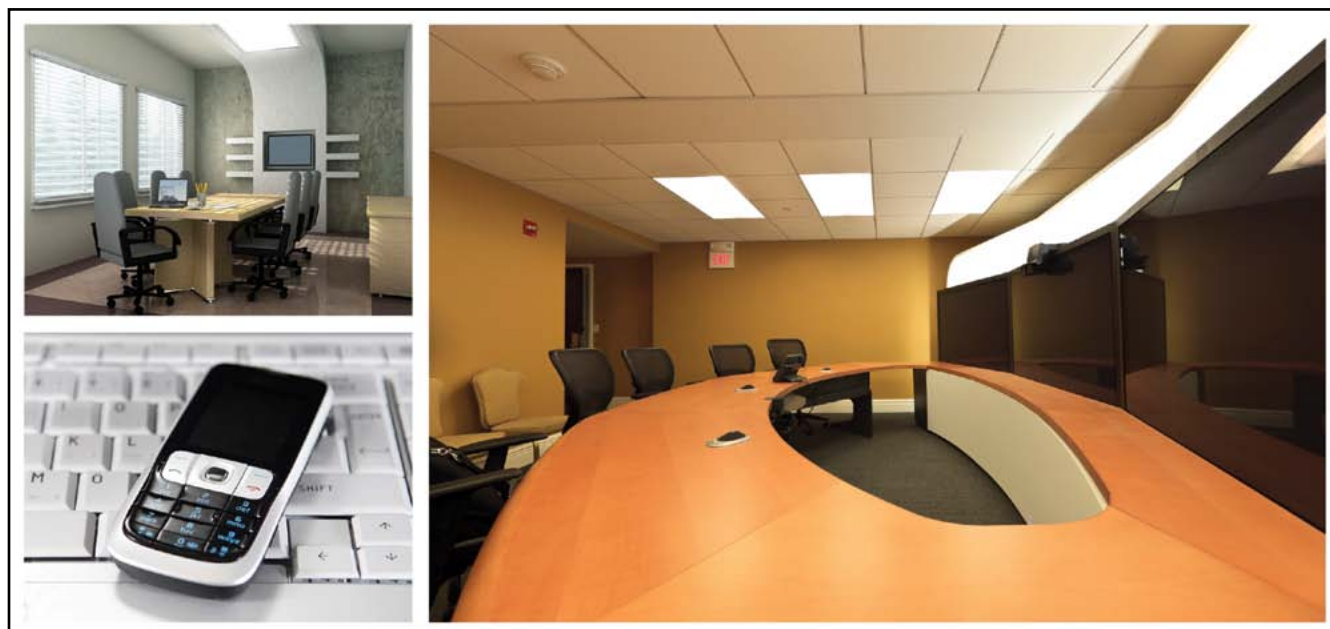
Many videoconferencing solutions are also still based on proprietary technologies and platforms, limiting the ability to offer visual collaboration services across ubiquitous endpoints (i.e. boardrooms, meeting rooms, desktops, laptops, tablets, smartphones and 3G feature phones).

Another challenge is scalability. A videoconferencing solution based on a peer-to-peer architecture can't scale to hundreds of participants; hence, centralized video mixing using multimedia conferencing units is typically required to scale a videoconferencing service. While MCU equipment has evolved to provide a feature-rich videoconferencing experience for broadband users, the high price-per-port for MCU equipment limits the financial viability of using enterprise MCU equipment to host and terminate lower-speed, lower-capability video client endpoints.

## The Alternative

An alternative architecture exists: Extending the capabilities of enterprise VPN videoconferencing solutions with a hosted videoconferencing solution using open IP-based standards. In a next-generation architecture, such as an IP multimedia subsystem set up, a traditional MCU is decomposed and replaced with application servers, which host the video application signaling, call processing, rating and billing; and a multimedia resource function, which performs the real-time mixing of the audio and video packet streams from each conference participant.

IMS is based on open standards, such as SIP for call and media processing control, allowing the AS and MRF components to support a variety of video client endpoints designed around the same SIP standard. The IMS architecture is also designed to work seamlessly in hybrid environments supporting both IP-based video endpoints, along with traditional TDM-based video clients through gateway equipment.





The hosted videoconferencing solution can also integrate with the enterprise videoconferencing solution. In this scenario (see figure), the hosted videoconferencing solution would aggregate the real-time video feeds from supplier, customer and remote workers, and provide a pre-mixed video interconnection with enterprise conferencing equipment.

Built to meet the demands of providers and users alike, the architecture provides a core designed for economics and service flexibility; endpoint flexibility; customizable bandwidth requirements for mass market appeal; and user experience customization for enhanced ease-of-use.

### Core & Connectivity Issues

The key to flexible, scalable and economic videoconferencing services is in the core architecture design. IP media servers, which deliver the MRF function in an IMS architecture, have been delivering VoIP audio conferencing economics to the hosted conferencing industry for years. Today, IP media servers also support IP video packet processing for SIP-based video clients' endpoints. IP media servers offer a lower price per port compared to traditional MCU and telepresence equipment, delivering the economics to extend videoconferencing services to the customer, supplier and remote workers.

Leading IP media servers also support integrated 3G-324M protocol processing. When an IP-media server is used with an economical audio media gateway, this architecture can deliver interactive 3G-324M video connectivity at a fraction of the cost of traditional 3G-324M video gateways and MCU equipment.

An IP-based videoconferencing solution can extend enterprise video systems to remote users that have the high-bandwidth access and sophisticated device capabilities, providing a hosted solution that can support continuous presence displays, displaying four, six or more panes of video feeds, simultaneously. This high-end segment of the market will continue to grow as both the enterprise and consumer increasingly utilize visual conferencing tools as a communications medium using smartphones, laptops and tablets.

To achieve the key objective of mass market appeal, a hosted videoconferencing solution must also deliver affordability to a broader market base. The fact is that most users don't necessarily have the terminal equipment, or the bandwidth, to benefit from an expensive SD or HD video port on high-end MCU equipment. With an IP-based hosted videoconferencing solution, per-port termination costs can be significantly reduced, while still delivering a compelling interactive videoconferencing experience using as little as 64kbps (3G-324M video), ideal for a consumer using a 3G mobile feature phone with a small screen.

Innovation is accelerating demand for videoconferencing services between the boardroom, meeting room, desktop and mobile participants, and each participant category introduces diversity in terms of codec formats, picture size, frame rate and bandwidth requirements. Meanwhile, ongoing video compression research and better endpoint processing capacity is allowing engineers to

introduce new video codec standards with improved video quality per bit to address these considerations. To attend to this increased diversity, a hosted IP-based videoconferencing solution needs to deliver scalable transcoding and transrating functionalities.

Transcoding is a key requirement for a hosted IP videoconferencing system to interconnect video media streams encoded with incompatible video codecs and signaling standards, such as H.263, H.264 and MPEG-4. Transcoding also allows operators to standardize on a smaller subset of codecs, minimizing equipment capital and ongoing operational expenditures.

Video streams must also be transrated in real-time. For example, transrating would be required to interconnect a broadband HD video stream to a lower bit rate required for a mobile device and smaller screen size, connecting an HD user to an economical 64kbps, 3G-324M circuit-switched video participant.

Even with all these capabilities and design considerations to address videoconferencing service economics, it will take time for a critical mass to have video-enabled mobile or desktop devices. Audio-only participants will continue to be the majority of the service users, so video service offerings must also be able to conference in audio-only participants in the same conference mix, a service feature supported by an open, IP-based solution.

This IP-based conferencing solution also allows for user experience customization or the integration of IP-based videoconferencing applications into any web-based communications infrastructure using Web 2.0 APIs and technologies. And given its scalable and flexible nature, the conferencing solution can evolve alongside video trends. Future possibilities may include entering a web portal for a videoconferencing service, selecting any number of required meeting attendees and pressing a button for a hosted videoconferencing service to dial-out to all of your contacts regardless if they are using a desktop PC, laptop, smartphone, 3G feature phone using 3G-324M video or an older 2G audio-only cell phone.

By allowing a variety of devices to interconnect seamlessly to a videoconferencing service leveraging open standards and economics, service providers are in a position to offer affordable, compelling and differentiated videoconferencing services, while the enterprise can also extend internal videoconferencing capabilities to external business contacts with compelling visual communication services, all at a fraction of the current cost.

An IP-based videoconferencing solution bridges the void between existing free applications and prohibitively expensive telepresence solutions for the large market stuck in between. Meeting the differing cost, quality, scalability, flexibility and user preferences of both the road warrior and the enterprise professional, an IP-based videoconferencing solution is a means for extending videoconferencing collaboration from the boardroom to the masses. **IT**

*Ray Adensamer is senior product marketing manager at RadiSys ([www.radisys.com](http://www.radisys.com)).*



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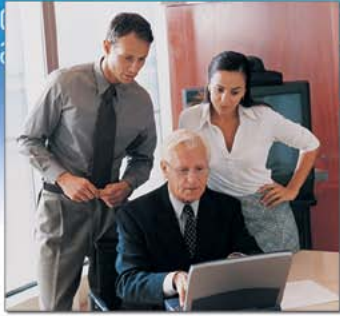
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# Spec Enables Mobile-TV Cross Over

Folks in the industry often talk about how consumers really don't care about technology; what concerns end users is that their products and services give them what they want, are easy to use and flexible, and are ready to go when they are. An industry group called The MHL Consortium is working to address all of the above. INTERNET TELEPHONY recently spoke with Judy Chen, director of business development at MHL LLC, to get the details.

## Who started the MHL Consortium and when?

Chen: The MHL Consortium was founded April 14, 2010, by Nokia, Samsung, Silicon Image, Sony and Toshiba. The 1.0 Specification was released June 30, 2010, and certification testing started Dec. 21, 2010.

## What does the specification address?

Chen: The MHL Consortium established a standard for a wired audio/video digital interface to connect mobile phones and portable devices to HDTVs and displays. MHL technology enables the delivery of HD video and high quality audio, while also keeping the mobile device charged and ready for use. Thin and portable cables can be developed and the TV remote control can control the connected device. No additional connections are required, as MHL technology utilizes the most common connections at the TV and at the device.

## What happens when, finally, a mobile phone can seamlessly integrate with a home entertainment system and become an important mobile and CE source device?

Chen: A typical usage scenario would be an MHL-enabled mobile phone that contains a user's personal content, such as high-resolution photos or HD video taken on the phone, connecting to a DTV and displaying the content on the big screen in full HD and digital audio. Downloaded mobile content such as movies, games and videos can also be displayed on the DTV in full HD with 7.1 surround sound audio. While the content is being played, the phone is being charged from the DTV so the battery doesn't get drained. When the mobile phone is connected to the DTV it becomes an integrated home entertainment system

component that can be controlled by the DTV remote control.

## You mentioned MHL changes the dynamics of the mobile industry. How?

Chen: MHL technology opens up new revenue opportunities.

## Like what?

Chen: For content service providers it allows for enhanced revenues from premium content and discovery services enabling high-quality music, movies, gaming, TV and video; opportunities to tap into the cross-over with the consumer electronics marketplace; seamless integration across multiple service channels; high performance value-added handset features and margin; and new accessories attachments.

## How about for content and application providers, like movie and TV studios, and game authors?

Chen: It enables them to realize revenue from premium multimedia content that will be more widely utilized and in demand; and to offer new applications needed to create, manage and utilize this content.

## The MHL Consortium also provides potential benefits to consumer electronics manufacturers and retailers. Explain.

Chen: For consumer electronics manufacturers it can connect CE products with mobile phones and portable devices, opening new market opportunities. For mobile manufacturers it adds robust capabilities and features to the next generation of fully HD-enabled mobile phones and portable devices; it keeps form factor small, implementation costs low; and it utilizes universal connections for HD A/V delivery, charging, and control. For consumer electronics retailers it offers the potential for value-added handset and service offerings; new accessories attachment sales; cross-over sales between the mobile and CE consumers; and new opportunities for integrated sales from content, device, accessories, service and install.

## Speaking of consumer electronics, the MHL Consortium had some important news at the CTIA show this spring in Orlando.

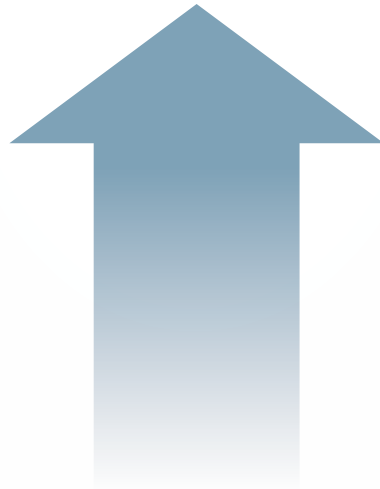
Chen: At CTIA Wireless in Orlando, HTC announced that its HTC EVO 3D and HTC Evo View 4G feature MHL technology. The HTC Evo View 4G is the first MHL-enabled tablet to be announced.

## What exciting things will be coming down the road from the MHL Consortium in 2011?

Chen: A full range of MHL-enabled products are expected by spring of this year from CE, mobile and cable and accessories manufacturers. We cannot say which manufacturers and when, but if you take a look at our promoters and full adopter list ([http://www.mhlconsortium.org/adopters/adopter\\_information.aspx](http://www.mhlconsortium.org/adopters/adopter_information.aspx)) you'll see who is part of our growing MHL community. IT



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By Erik Linask

## Is Skype Microsoft's Ace in the Hole?

At \$8.5 billion, Microsoft overpaid for Skype. That's the initial reaction of much of the industry and, when all is said and done, that may turn out to be true. But, there are too many compelling opportunities for Microsoft to not have made the move.

In the days leading up to the deal, many were speculating that Facebook and Google were in a bidding war for Skype. While neither has Microsoft's presence in the enterprise space, adding an established communications capability and an enormous global user base would have given either a significant advantage in the consumer communications space.

Yes, eBay tried, but its business isn't nearly as conducive to integrating voice and video capabilities as Facebook. Half a billion users are already using Facebook, more than half of them on a daily basis, to engage their friends, colleagues, and family members. Integrating Skype features would be a no-brainer and would effectively ensure Facebook's dominance in the social communications market. Add to that the fact that countless businesses are creating Facebook storefronts – again, because that's where their customers are – FaceSkye suddenly adds a business focus as well.

Speaking of business focus, you'll recall Microsoft's OCS launch, which was supposed to be the next great thing in enterprise communications and the PBX killer. That didn't play out quite as Bill Gates had planned. Lync, however, is a much improved UC platform and, with the integration of Skype, Microsoft instantly has a full-blown communications platform that doesn't require a third-party PBX.

That's not going to be a market changer as long as call quality on Skype isn't business-grade, but with the hardware that already exists to connect Skype to corporate communications systems, Microsoft has put PBX vendors on notice. What would happen if it builds or, more likely, buys the

network infrastructure that will allow it to deliver enterprise-quality voice via Skype? The thought brings new life to the "Death of the PBX" messaging from 2007.

The whole concept behind OCS, if you think back to 2007, was about removing the barriers of distance, network, and device from the communications equation. Having already struck an alliance with Nokia, Microsoft now has the chance to make that a reality by building tight integration between Lync, Skype, and Windows Mobile 7 handsets. The combination presents a compelling UC case. It also presents a mobile video chat competitor to Facetime. One also has to wonder how Microsoft will approach the availability of Skype on other mobile platforms.

But, the most immediate impact will be in gaming. Microsoft's Xbox already leads the market over Sony's Playstation3 and Nintendo's Wii, and the integration of Skype into its platform will combine two popular products that in all likelihood have a significant common user base already, creating an easy sell. Combined with the Kinect platform, Microsoft will deliver an even more immersive gaming platform, which Sony will find difficult to emulate. Add to that the mobile integration that already exists with Windows Mobile 7, and Microsoft will have delivered a unified gaming experience.

If Skype integration with its mobile platform, Lync, and gaming system delivers unquestioned dominance in these three markets, Skype's value as an add-on will make \$8.5 billion look like a bargain.

Despite all its potential benefits, none of this is quite as exciting as the idea of Skype-enabled Facebook, but it brings Microsoft significantly closer to being the UC behemoth it has sought to become. It's also the very reason Microsoft almost had to buy Skype – it could mean the difference between winning the consumer and enterprise communications markets, or losing both.

It's a significant investment, and one that isn't guaranteed to pay dividends. The pieces are in place, however, for Microsoft to build onto its empire. Of all the questions that remain, though, one stands out: Will it be able to monetize Skype, and does it matter? If Skype integration with its mobile platform, Lync, and gaming system delivers unquestioned dominance in these three markets, Skype's value as an add-on will make \$8.5 billion look like a bargain. **IT**





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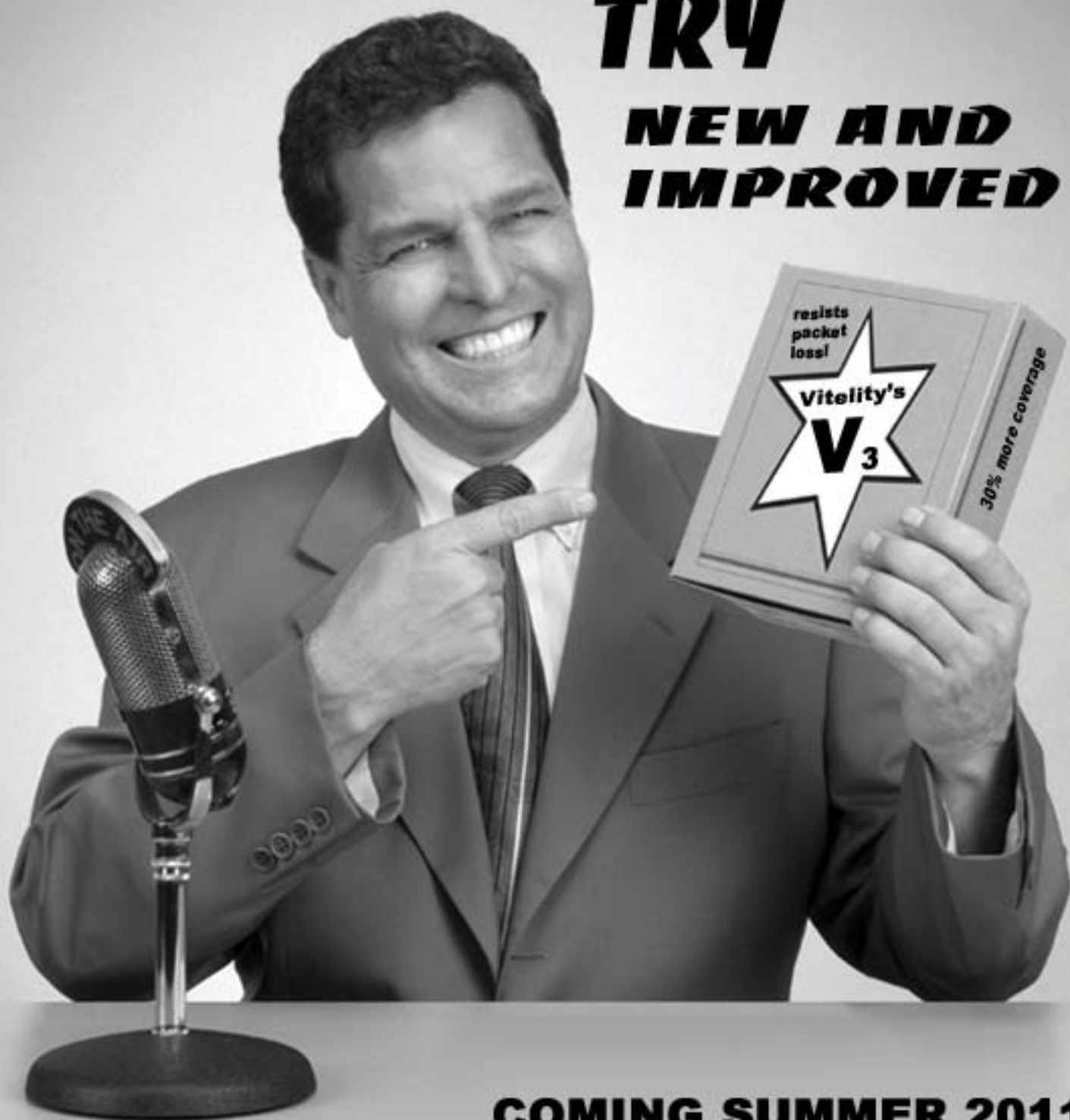
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