

TMC

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Reflections From
INTERNET TELEPHONY
Conference & Expo
San Diego 2006
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The IP Communications Authority Since 1998™



SUCCESSFULLY DEPLOY IPTV

Also In This Issue:

- **IPTV: What's Not To Love?**
- **Cable Telephony: For The Enterprise?**
- **Dialogic Returns!**

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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.

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The Zippy Files



By Richard "Zippy" Grigonis

It's déjà vu all over again!

Yours Truly pleaded with Greg Galitzine not to take that "Bermuda Triangle Celebrity Cruise" but he just wouldn't listen. . . .

Just kidding. Greg is still with us — indeed, his "The VoIP Authority" column now serves as the Grand Finale to each issue of this magazine. Greg has been promoted to Group Editorial Director for the IP Communications Group here at TMC. While occasionally looking over my shoulder and monitoring the progress of *Internet Telephony*, *IMS* and *SIP* magazines, he'll also now be immersed in producing and editing content for TMCnet, the communications industry's most successful news Web site.

As for Yours Truly, I was the founding editor of Jeff Pulver's *VON Magazine*. Some readers out there may also remember my long association with Harry Newton and *Computer Telephony* magazine, which was renamed *Communications Convergence* after CMP bought Newton's company in 1997 for \$130 million.

Having taken upon myself the heavy mantle of Greg Galitzine's former Executive Editor role, I now find myself in charge of three amazingly dynamic and illustrious magazines. Back in the heyday of the 1990s I'd be calling them "sizzling and exploding" magazines. And you know what? They are!

When I left my previous job, I wrote my colleagues the following paragraphs. They never saw print. But although they were written by an editor saying goodbye to his fellow editors and readers, I think you'll agree that, ironically, they apply equally to an editor saying hello to his new staff and readers as they all embark on a new publishing adventure. . .

A friend-of-a-friend of mine, the late, great, literary agent Paul R. Reynolds, once noted that, "The *Reader's Digest* has had the same editor for the past 20 years and I bet you can't name him."

He was right — I couldn't. But then, a great editor is never a famous, overpowering, or dictatorial presence, but more of a guide and colleague, *primus inter pares* or first among equals. So it's not surprising if an editor becomes "the ghost in the machine," since the machine — or magazine in this case — is really the business end of things as far as the reader is concerned. Besides, a magazine is a group effort and is only as good as its whole team. Unfortunately, whole teams of talent — even great talent — can similarly be taken for granted and then forgotten over time. To this day we continue to be entertained by the works of, say, Gilbert & Sullivan, but how many of us know of Francis Beaumont and John Fletcher, or Henri Meilhac and Léon Halévy, or the Goncourt brothers? A ludicrous comparison, perhaps. After all, our job is not to impress literary critics or delight theater audiences for ages to come; rather, we have the far more humble and ephemeral task of providing corporate decision makers with the information they need to transition their enterprises and networks to IP communications.

But surely our workmanlike efforts in helping to bring about this epic technological change on a global scale can be as ennobling and as important historically as any grandiose work of letters, perhaps more so. And if someone in the future fondly remembers that Yours Truly and his associates had something to do with it all, so much the better.

. . . Now that we're past the highfalutin, reach-for-a-hanky stuff, let's get down to business. *Internet Telephony* magazine is the largest and most successful IP communications magazine in the world. It literally grows in size and circulation every day. And it is backed by the most sophisticated and highest-ranked Web site of its kind, <http://www.tmcnet.com>. I strongly feel that you'll both enjoy and find useful the immense, timely mass of information bursting forth from TMC's magazines and online resources.

As we went to press, news came over the wire that Eicon has purchased the remaining Dialogic assets from Intel and is changing its name to — Dialogic! (See Rich Tehrani's article on this elsewhere in this issue.) Dialogic, the bellwether company of the 1990s computer telephony era, is back. Hmm. Yours Truly is back and Dialogic is back. Could Howard Bubbs (Dialogic's former CEO), Marc Ostrofsky (of *Voice* expo fame) and Harry Newton be far behind? *Gasp!* IT

Correction Ilkka Pouttu's article in our September issue listed an incorrect Web address for Paragon Wireless. The correct URL is <http://www.parawireless.com>. We regret any confusion this may have caused.

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convergence, meet the new guy.

With the new OfficeServ™ 7400 platform from Samsung, the converged work environment just got bigger, better and faster. In the tradition of the OfficeServ™ 7200, the new OfficeServ 7400 provides wireless functionality along with wireline, analog voice, VoIP and data capabilities. Unlike its predecessor, however, this new platform offers more ports, a gigabit Ethernet backbone and 64-channel IP cards. It also boasts a more robust infrastructure for more powerful applications for more users. All deployed simply in a standard office environment or data center. And all thanks to the new guy.

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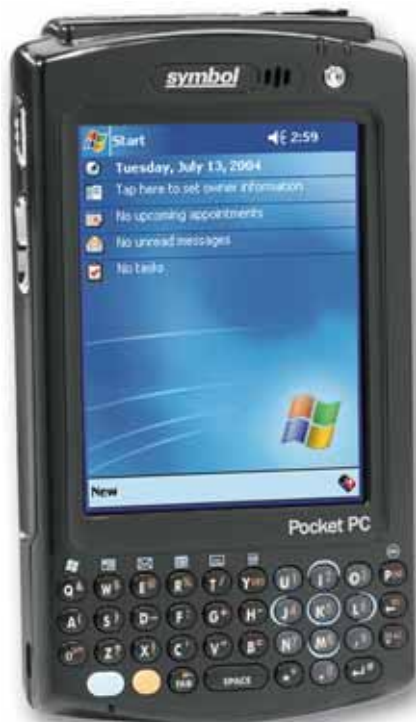
QUOTE OF THE MONTH:

“Honestly, I have been in telecom for over 13 years in the billing and OSS space and embarrassingly enough, I couldn't explain my friend's bill to her upon request. Is this really the personalization we strive for? Are our newly acquired capabilities around data collection, customer relationship management, and bundled billing seeing the payoffs promised?”

— Kelly Anderson,
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WHAT'S ON TMCNET.COM RIGHT NOW

TMC's SIP Trunking Channel

Among the many reasons for the proliferation of VoIP communications among businesses is that companies can dramatically reduce startup investment and ongoing management costs through SIP trunking, in addition to increasing the efficiency of the communications process. The SIP Trunking Channel features the latest news and original bylined articles to bring you then latest on the topic. To learn more, visit <http://www.tmcnet.com/channels/sip-trunking>. It is sponsored by BandTel.

TMC's Unified Communications Channel

The idea behind unified communications is to eliminate the barriers created by the communications silos by integrating all forms of business communications. The Unified Communications Channel brings you the latest news and contributed editorial surrounding the convergence of email, IM, VoIP, cellular, video, and Web-based communications. To learn more, visit <http://www.tmcnet.com/channels/unified-communications>. It is sponsored by Iwatsu.

WHAT'S ON TMCNET.COM RIGHT NOW

To stay current and to keep up-to-date with all that's happening in the fast-paced world of IP telephony, just point your browser to <http://www.tmcnet.com> for all the latest news and analysis. With more than 16 million page views per month, translating into more than 1,000,000 visitors, TMCnet.com is where you need to be if you want to know what's happening in the world of VoIP.

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

VoIP: The Growth Hormone for Voice Applications

It has been said that the mature voice communications market is experiencing the greatest growth rate since the invention of the telephone, more than a century ago. But this growth, stimulated by VoIP technology, expands the voice application in a completely new domain, where the full convergence of voice, data and now video, including fixed line with mobile devices, creates a range of exciting applications that would have seemed futuristic even a few of years ago.

<http://www.tmcnet.com/382.1>

Applying Network Business Intelligence for Proactive Quality of Service (QoS) Management The World Wide

In a world where consumers have a nearly unprecedented choice of service providers, it is more important than ever for providers to keep customers happy and loyal. But, many companies wait until they hear about problems with service levels from customers before implementing change. In many cases, this reactive approach to managing quality of service (QoS) is simply "too little, too late."

<http://www.tmcnet.com/383.1>

Mobile Operators Fighting Fraud

As mobile devices increase in sophistication, the type and scale of data they carry makes them more valuable than many computers. However, as the mobile environment evolves, the same problems that have plagued PC users for many years (fraud, theft, viruses, and spam) have also begun to threaten the integrity of the mobile industry.

<http://www.tmcnet.com/384.1>

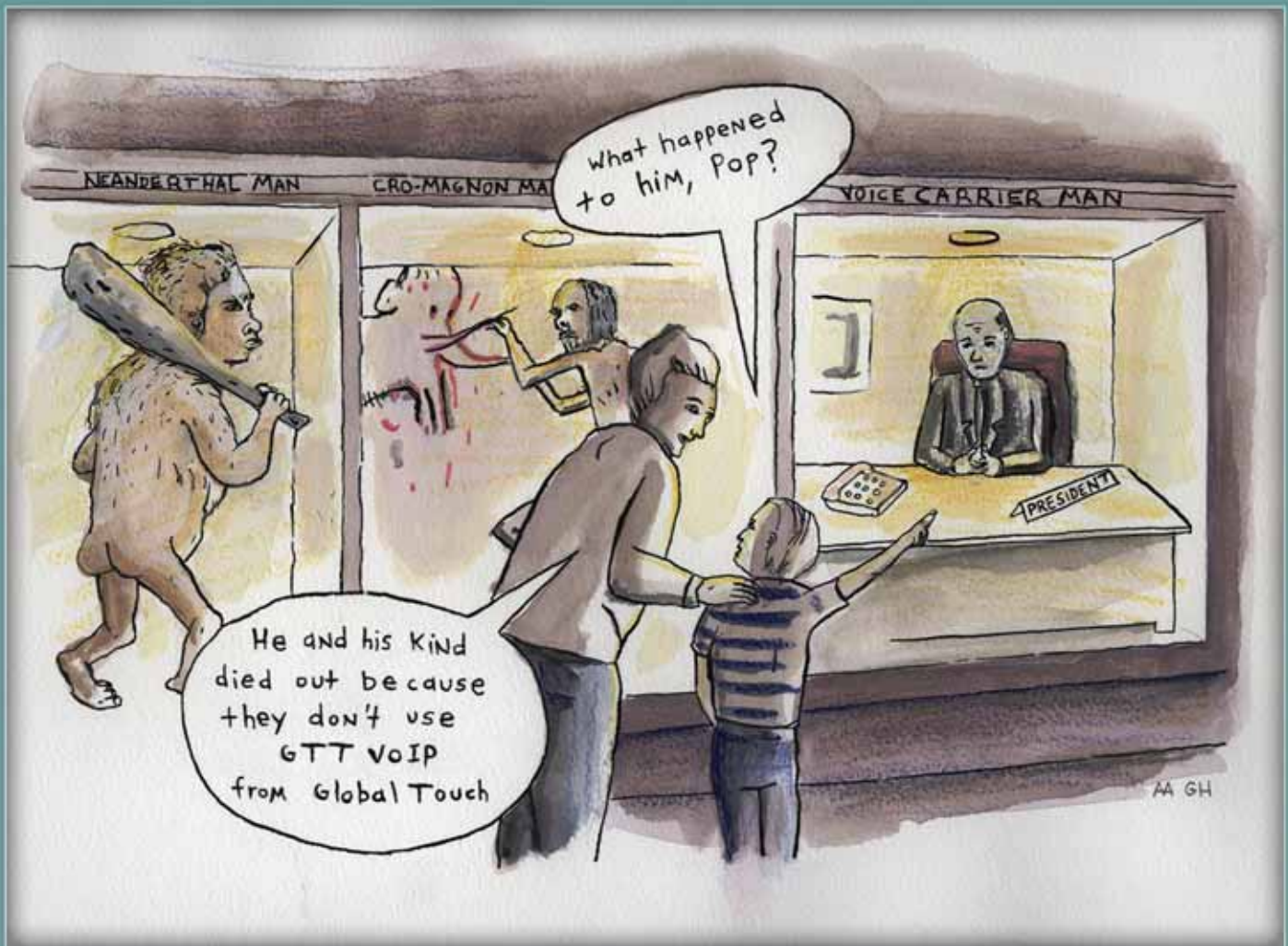
Enterprise VoIP Peering Comes of Age

There has been an enlightening trend in the world of information technology. As companies have been looking for data center sites to comply with disaster recovery or SOX requirements, they realized the data center could become one of their data sites providing Internet and Intranet access. <http://www.tmcnet.com/385.1>

Billing and Enhanced Services for the Next-Generation Network — RADIUS or SIP?

With SIP-based trunking, creative end user empowering services, and the efficiencies associated with IP-based networks, the prepaid calling card market is as lucrative as ever for the next-generation ITSP and TDM based carrier migrating to IP.

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By Rich Tehrani

A Visit to the Ultimate IP Communications Experience

I just returned from Internet Telephony Conference & Expo (<http://www.itexpo.com>) where I was overwhelmed by all the activity over the course of the week. The show has grown over the years; from a humble event in the Hotel Del Coronado in 1999, it has become the Ultimate IP Communications Experience in the San Diego Convention Center.

One of the speakers at the show was Seamus Hourihan, Vice President of Marketing & Product Management at Acme Packet (<http://www.acmepacket.com>). I didn't get a chance to speak with Seamus for very long, but I noticed there some noise about the [Acme Packet \(quote - news - alert\)](#) IPO that took place during the show. Unlike the Vonage IPO that the whole world seemed to be intensely analyzing, this IPO was very quiet. Surprisingly quiet, in fact. Prior to the IPO, many in the industry questioned why the company would even consider the public markets as an exit strategy.

Many were very worried about the IPO because it came relatively soon after the crummy [Vonage \(quote - news - alert\)](#) offering. Some insiders have quietly told me that Vonage has caused the IP communications market hundreds of millions of dollars (even billions) of financial damage. A few Vonage competitors saw their valuations drop immediately — just because Vonage went public.

So, many were a bit nervous about this offering. Despite all of this, it seems Acme Packet really pulled off a stunner. The stock was supposed to open at \$8 to \$9, but opened at \$9.50 a share and now trades — less than a week later — at \$17.34. This is certainly a 'shot in the arm' to IP communications companies everywhere.

I spoke with Seamus after the show and told him about how many in the industry were nervous about the IPO, owing to what happened with Vonage. He pointed out that Vonage and Acme Packet are in two very different industries. Whereas Vonage is a service provider, Acme Packet is an IP communications equipment vendor. They have very different target customers, different products and services, different distribution strategies, different competitors, and different financial models. The only thing they have in common is their use of VoIP as a technology.

Even within the equipment market, Acme Packet is very different from the others in many, but not all, of these characteristics. The "others" would include the likes of Alcatel,

Ericsson, Italtel, Lucent, Motorola, Nokia, Nortel, Siemens, and Sonus. Thus, it is very hard to generalize.

I mentioned that the Acme Packet IPO was very quiet; Seamus told me the company can't say much as they are in the "quiet period" and the registration statements have to speak for themselves. "That is the way it works in today's world," he said. Additionally, there was a road show, which is available for perusal online.

From the service provider market we go to the enterprise, where [Interactive Intelligence \(news - alert\)](#) (<http://www.inin.com>) also saw its stock jump during the show, a result of its announcement of great earnings along with the fact that its revenue has grown 30% year over year.

Of course, stock price is not always linked to the real state of markets, so I hesitate to put too much focus on snapshots of how shares are doing. Still, these two companies represent a wide swath of the IP communication space, from enterprise buyers to service providers, that are deploying technology in their networks. As such, we get some sense of where the market is with respect to the IP communications players.

Oh, I almost forgot. 8x8 — the company behind Packet8 — announced it will be cash flow positive during the first quarter of 2007. This is important news, since to date both 8x8 and Vonage have been getting hammered due to profitability concerns. This news could potentially put even more pressure on Vonage shares. In a related bit of good news, Packet8 service is now used by over 5,000 business customers.

One of the best parts about ITEXPO is getting to speak with so many thought leaders in the space. One such example is Michael Khalilian, Chairman of the IMS Forum, with whom I had an interesting conversation. While on stage in a panel on VoIP Service, Michael mentioned the need for consolidation in the VoIP space. He says some providers in the triple play space are 'gunning' for the VoIP market and have considered giving away voice to

Some insiders have quietly told me that Vonage has caused the IP communications market hundreds of millions of dollars (even billions) of financial damage.

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customers who purchase broadband and certain types of programming. The goal here would be to wipe out pure-play VoIP ([define](#) - [news](#) - [alert](#)) providers so the market clears up a bit.

In Michael's opinion, the best defense against such moves is pure scale. He advocates VoIP providers banding together as soon as possible so they are in a position to fend off threats from larger providers. He also pointed out that, although it is difficult to get money for business expansion, money for acquisitions appears limitless (not his words exactly, but that is the theme I took away from more than a few similar M&A discussions during the show).

Another trend I saw was that of SIP trunking becoming mainstream. For example, [Ingate](#) ([news](#) - [alert](#)) (<http://www.ingate.com>) and [BandTel](#) ([news](#) - [alert](#)) (<http://www.bandtel.com>) were in the news and creating quite a stir at the show explaining how companies can benefit from this technology: It reduces the need for proprietary hardware and expensive voice circuits.

Interest in IMS and FMC was also huge as companies were trying to figure out the best way to get a handle on the rapidly evolving worlds of both technologies. There was much talk at the show of the A-IMS (Advances to IMS) initiative led by [Verizon](#) ([quote](#) - [news](#) - [alert](#)) (<http://www.verizon.com>); some people were even complaining about some internal Verizon comments about not needing IMS for many of the services they will be supplying (this last comment was overheard in the show hotel's elevator).

Other comments about Verizon centered on how the company is very difficult to work with. A few of the company's partners told me Verizon would rather endure a worse deal for itself rather than lose control over a partnership. Other service providers have had similar complaints lodged against them, but Verizon's name came up more than any other and the company appears to be the toughest with which to work.

Business Continuity/disaster recovery was another trend at the event. There was much education on the topic and a really nice demo appeared in the form of a bright yellow Hummer powered by Pacstar/Sphere Communications equipment. Expect to see this Hummer again at ITEXPO in Ft. Lauderdale in January 2007.

In addition, Max Schroeder of the ECA and [FaxCore](#) ([news](#) - [alert](#)) (<http://www.faxcore.com>) also led a Disaster Preparedness Workshop at the show that was well attended.

One of the more interesting disaster preparedness-related stories worth mentioning was from [Iwatsu](#) ([news](#) - [alert](#)) (<http://www.iwatsu.com>). Iwatsu has a service called Enterprise Messaging Application (EMA), which is a partnership with [Aizan Technologies](#) ([news](#) - [alert](#)) (<http://www.aizan.com>). The application is a service that is all about building voice and Web communities. As you may have

read previously, I am a big believer in communities as the future of communications.

One EMA customer is the United Space Alliance (USA), NASA's prime contractor for the space shuttle. In a disaster scenario such as a hurricane, employees can call an 800 number to get information about the status of their building and when they should report to work. You can also add/update contact information via telephone and be notified if/when things change. The application also works with fax, SMS, and email.

EMA can be used by any company that worries about disaster preparedness as well as other kinds of organizations, such as schools, where an emergency could take place. Parents can use EMA both to keep in touch with the school and to be notified of any changing conditions. EMA supports other applications, such as reverse 911, enabling emergency management offices, for example, to tell consumers that a hurricane is coming, or that residents near a gas leak should stay indoors.

What I like about EMA is that it is being supplied as a service from a PBX company, which means that the dealer network is able to piggyback this application as a differentiator when competing against other PBX companies. So think of EMA as a voice/Web community service that is the ultimate enhanced service, with little or no competition in the PBX space. This gives Iwatsu VARs, for example, a tremendous advantage and I expect to focus on this area a great deal at our January show in Ft. Lauderdale.

From there we go to Zig Serafin, General Manager, Unified Communications Group, Microsoft Corp., who was absolutely mobbed after his keynote session. I received many compliments about what he had to say and was impressed as well. When he finally had a chance to break free, we spoke for a while about Microsoft's vision for the future of communications.

Here are some key quotes in response to my question, "What do customers need to know about unified communications?"

"Unified Communications is about bringing the power of software innovation to communications and changing the way information workers think about voice — in the context of daily processes," said Serafin. "This will bring new levels of productivity to information workers and organizations, similar to the impact the Microsoft Office Suite made on workers productivity over the past two decades. Today's enterprise buyers should evaluate their budget spent across VoIP/IP

PBX, TDM PBXs, voicemail, and consider how they can make sound investments that will get them on the path toward a software-based platform for enterprise communications."

Another booth I had a chance to stop by was that of [cyLogistics](#) ([news](#) - [alert](#)) (<http://www.cylogistics.com>), which

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is not only a full-service distributor of IP communications products, but also sells various service provider products, such as its TrueLine ITSP Billing and Tax Database. I think this is an important product, since service providers have to keep up with so many city, state, and federal taxes around the country.

The product has been in production for over 12 years and it is now IP-ready. There are 17,000 municipalities represented allowing ITSPs to manage the true cost of their business. The company also sells a Class 5 server as well as a session border controller.

Other important news was the IMS Forum's announcement of a series of IP Multimedia Subsystem plugfests. ReefPoint (news - alert) (<http://www.reefpoint.com>) unveiled a new Universal Convergence Gateway focused on fixed/mobile convergence (FMC). Audiocodes (news - alert) (<http://www.audiocodes.com>) released a new transcoding blade enabling developers to change coders on the fly without the need to recode applications.

There was much more and I would like to direct you to <http://www.tmcnet.com/389.1> for more information.

In short, the outlook for the IP communications market seems very bright across the entire spectrum, from enterprises to service providers. Companies focusing on enterprises are now looking to penetrate the SMB space. In the service provider market, the sky's the limit, as wireless is an area of tremendous growth and IMS/FMC are also areas seeing rapid product deployment. The one concern here is that carriers are spending billions of dollars on technology — they need to be more certain of the ROI of these investments. “What are the money making applications?” they rightly ask. As an industry, we need to make sure we answer these questions to keep service providers investing and reaping the

ITEXPO Back in Ft. Lauderdale in 2007, Bigger and Better

As you have noticed, the Internet Telephony Conference & Expo (<http://www.itexpo.com>) keeps getting better and better. It has become the ultimate IP Communications Experience and we are proud to host an event where IP Communications Decision makers come to buy their equipment and services.

We have received tremendous feedback about this most recent show and we are more encouraged than ever that ITEXPO provides an educational experience superior in every way to all other events. From the quality of our speakers to the topics we cover, there is one place you need to be when making VoIP/IP communications buying decisions — this show is it.

When planning 2007 budget spending, you will not want to miss the conference and exhibits as we will have over 200 exhibitors. Moreover, expect our educational sessions to get even better. Please check out our testimonials on the show at (<http://www.tmcnet.com/388.1>) and register now at <http://www.itexpo.com>.

Please also book your Ft. Lauderdale hotel rooms *now*, as the show, for many years, has sold out months in advance and I don't want you spending all of your time commuting to the hall. IT

TMC Welcomes Richard “Zippy” Grigonis

Some years back — I can't recall — perhaps it was 1998 or 99, I am not sure exactly when — I got a call from Joe Jackson at Alliance Systems who thought Rich “Zippy” Grigonis would be a good fit for TMC. Rich was working on *Computer Telephony Magazine* at the time.

We had a meeting about hiring Rich but somehow didn't close the loop. We had a delicious steak dinner as I recall. Then, a while later, we had another meeting with Zippy and Marc Robins about hiring Rich. Again, somehow it didn't work out. This time it was lunch and I don't recall the food being as good.

Sometimes things just work and you aren't sure why. For whatever reason, the talks never got serious.

Then more recently, Rich dropped us a line and said he was looking for a career change.

As you probably know, TMCnet is growing nicely and has become the *de facto* destination for communications news. The world's largest community of communications decision makers rely on TMCnet as a primary resource.

Most of you know TMCnet is ranked in the top 1,650

sites in the world by Alexa (a division of Amazon) and there is no competitor anywhere near us. We are quite proud of this accomplishment but aren't resting on our laurels.

I would also like to take this opportunity to thank all of you who choose TMCnet as their primary resource. And hats off to the TMCnet editorial, graphics, and development teams for making the site so successful.

Greg Galitzine, who started his career at TMC on *CTI Magazine*, later launched the world's first magazine on IP Communications — *Internet Telephony*. This was back in 1997. He has done a great job and is an industry icon.

We thought, and Greg agreed, that a move to Group Editorial Director of TMC made sense and, as such, Greg will have a major hand in managing the Web site. We expect him to take TMCnet to the next level.

To that end, we had an editorial opportunity available and Richard Grigonis was the right person at the right time. He will also be known as Zippy once again — a name he hadn't been using as much recently. As they say, the third time is a charm. IT



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www.dialogic.com



News Analysis
By Rich Tehrani, Group Publisher

Dialogic Back After 7 Years

This Dialogic will be about IP not TDM

If you have been in the telecom business for five years or more, you know the large shadow cast over the industry by Dialogic. In the mid-nineties, the computer telephony/CTI market was booming and Dialogic was the largest player in the space. Their partner programs were legendary and their ecosystem of loyal partners, like Parity Software, Alliance Systems, Apex Voice, Alliance Systems Executone, Pronexus Systems, Prima, and others, was the largest in the industry.

Dialogic's ([news - alert](#)) competitors launched ecosystems of their own and NMS, Rhetorex, and Brooktrout all competed ferociously to be the biggest and best DSP resource board vendor. Popular applications at the time were international callback, IVR ([define - news - alert](#)), ACD, application generators, and virtual receptionists like Wildfire. What's Wildfire you ask? Well absolutely the most amazing solution allowing you to have an interactive conversation with an automated attendant. You could say things like "Wildfire, please call Greg Galitzine," or "Wildfire, please conference Greg Galitzine and Tom Keating." This particular solution never became a commercial success and there are numerous theories as to why. Suffice it to say the nineties were the glory days of telecom, where the power of computers was coming to communications, allowing us to leverage commercial off the shelf systems to build robust telecom solutions that simply were not available

before.

Furthermore, this era marked a time when anyone with a good idea could go out and buy a board and start developing tomorrow's killer communications application. You no longer needed to design with hardware; you could use software only. This was a breakthrough. This was new. This was different and this was a realm where Dialogic reigned. Now this is not meant to be disrespectful to other players in the field. Everyone did their part, but no one spent like Dialogic to further the growth of their partners and the market.

Oh and I almost forgot Microsoft and Novell's participation in the market. During the heady days of the nineties, the two operating systems vendors vied for first place in computer/communications connectivity. With competing standards, like TSAPI and TAPI, the two companies fought incessantly to be the leader in CTI.

In the late nineties, the industry changed dramatically for a few reasons.

The first was the Internet took off and Wall Street spoke incessantly about how far behind Microsoft ([quote - news - alert](#)) was in this space. In addition, Novell lost relevance as we progressed into the decade. So Microsoft took most of their telecom team and resources and devoted them to becoming leaders on the Internet while forgetting about telecom for the most part.

In addition, around seven years ago, Intel decided to purchase Dialogic, with the goal being to integrate Dialogic technology on Intel processors, further entrenching Intel in the communications space.

Around this same time, IP telephony began to take off and the industry started to transition into trying to figure out how best to leverage IP. After a few years of massive growth in VoIP, the market crashed and we had the telecom nuclear winter.

When Intel took on Dialogic, the company decided to spend more of its time selling its technology to current Intel partners. They became much less aggressive at bringing in new partners in the market to develop with Dialogic

boards. They certainly were a major presence in the market but they were slower to move and had virtually unlimited resources. They lost some share but not as much as they could have. In all, the small Dialogic division fared well under its massive corporate parent.

The term "Dialogic" is an interesting one as it symbolized the market for a while. Dialogic and its partners were the computer telephony/CTI industry. They were the lion's share of the market.

But even as the Dialogic brand became deemphasized and eventually received no promotion, people never forgot it. Even to this day.

If you haven't been watching closely, the division that formerly was called Dialogic was recently sold to Eicon (see <http://www.tmcnet.com/377.1>). As of this writing, the transaction has been finalized and the good news is after seven years, the Dialogic brand is back as Eicon will be changing its name. This could not be better news for the many Dialogic partners I have spoken with over the past months.

This is the first move Eicon has made since the transaction has been completed and, based on this action, the company has certainly gained strong momentum. I had a chance to speak with Jim Machi, Dialogic's Vice President — Product Marketing yesterday and ask some questions about where the company is headed.

One of the first things we discussed is how Eicon's Diva Server product line is now complemented by products from the Intel Media and Signaling business, including the broad range of Dialogic analog and T1/E1 network interface and voice cards, PBX integration and station interface cards, voice and video Host Media Processing software and HMP-enabled boards, SS7 and signaling solutions (including an SS7-based AMC card), gateway solutions, and ATCA-based multimedia server product line. There is obviously no shortage of

products in the company's portfolio and there are no immediate product cancellations.

In addition, Dialogic will be part of the Intel Communications Alliance and will be on equal footing with other players in the market. There will soon be an Intel partner program and the company says the culture of Eicon integrates with theirs very well. Having a new partner program is great for Dialogic as, over the past years, they had to work within partner programs designed for chips.

Going forward, the focus of the new company will be on IP-based and HMP-enabled solutions. The tremendous amount of experience they picked up with Intel chips will certainly serve them well over the years. Jim tells me customers are genuinely enthused about what is going on. They seem very happy.

I asked Jim if he feels the new Dialogic still has the power to move markets the way they did in the nineties. Jim was very frank and pointed out the TDM market is shrinking and you don't need a DSP board to record a VoIP conversation. He went on to say that in three years they will know if they are still the same player as they were in the nineties.

One of the reasons they are so optimistic is that they feel their HMP and DSP solutions will have the best price/performance in the industry. Obviously Dialogic under Intel was more keen to develop HMP products as they pushed the sale of Intel chips. The new Dialogic can focus on selling DSP-based solutions when this makes the most sense.

The company sees more PCI Express products in its future and they plan on playing more in the video market, which they feel is now a larger part of the communications space. The gateway market grows at 30% a year, so expect to see them playing more in this space

as well. According to Jim, the industry still needs to do all the crunching for multimedia processing whether it is over the phone, on a new device or via Skype.

I asked what the biggest threats were to the company and they responded that the market is maturing and there aren't as many ISVs. There is a consolidation of customer base and competitors. In addition, much of their business was once an adjunct to a switch — voicemail, ACD, IVR — and now Cisco and Avaya are able to sell entire solutions.

Other areas of growth for the company are interoperability in the IP and SIP space. Telecommunications is still not plug and play, according to Machi. The company also feels confident that open systems are going to win in the IP world. I queried them on open systems and they explained that using Dialogic building blocks solutions, providers such as SBC (session border control) companies are able to spend less money on R&D and more money on differentiating themselves. Finally you can expect to see Intel play more in the IMS and 3G video space.

In short, the company seems to have a very aggressive business plan for growth. The question everyone is asking is will the new Dialogic be able to pick up where the old company left off? If so, what products will be their major moneymakers. Where will they add value and do they have the clout to move markets the way they used to. Many of the same people who were with the company a decade ago are still there and they seem more ready for this challenge than you can imagine. There is tremendous enthusiasm in the new Dialogic and their drive to lead in areas such as gateways and IP is commendable. So the company is ready. . . We will have to see how they execute over the years. If they are successful, I can see the entire communications market benefiting — friends, foes, and partners. IT



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Panasonic Unveils Hybrid IP PBX
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 Mobile Call Centers From Five9 and Smart
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VoIP-PAL Becomes Vonage Reseller
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Beam Me Up, Polycom

By Erik Linask

Imagine being in a specially designed room, talking to colleagues, almost forgetting they are miles away. Imagine them as life-size images sitting at your table, with no microphone or camera in sight. Or imagine the same thing with two groups of colleagues, or three, or four, or more. That is precisely what Polycom has been demonstrating with its modular RPX facility designed to fit nearly anywhere, in which participants can interact with their colleagues in other similar facilities almost as though they are in the same conference room.

Polycom's ([news](#) - [alert](#)) immersive room experience includes giant eight- or sixteen-foot video screens that capture life-like images of co-workers in similar RPX facilities. The small cameras are embedded into the screens and the microphones are similarly hidden in the ceiling, leaving meeting participants with minimal distractions so they are able to focus on the task at hand. The video screens also are curved, giving an even more impressive of feeling of being in the same room. Even the studio quality lighting in the ceiling has been designed to minimize shadow effects typically exposed through cameras and bring out natural skin

tones. The ceilings and walls themselves have been treated with sound masking materials, virtually eliminating outside noise. And the sound within the rooms is maximized through the use of a single audio system to deliver crystal clear sound, rather than multiple individual speakers.

But the real marvel behind the RPX is that, through its use of "human factors engineering," Polycom has been able to make conference participants become completely unaware of their technologically advanced surroundings — particularly that they are on a video conference. In essence, they have succeeded in making the technology disappear for



the conferees.

Furthermore, because the RPX platform is standards-based it can be used in conjunction with legacy equipment (both voice and video), maximizing previous investments in technology.

For enterprises and government customers, who are always mindful of accumulating costs, it is also important to note that the RPX rooms are, by virtue of their modular design, free-standing and moveable, so that their all-inclusive immersive environment can be relocated if necessary. About the only thing the RPX can't do with its real world collaborative setting is beam you from New York to Virginia. But it's the next best thing.

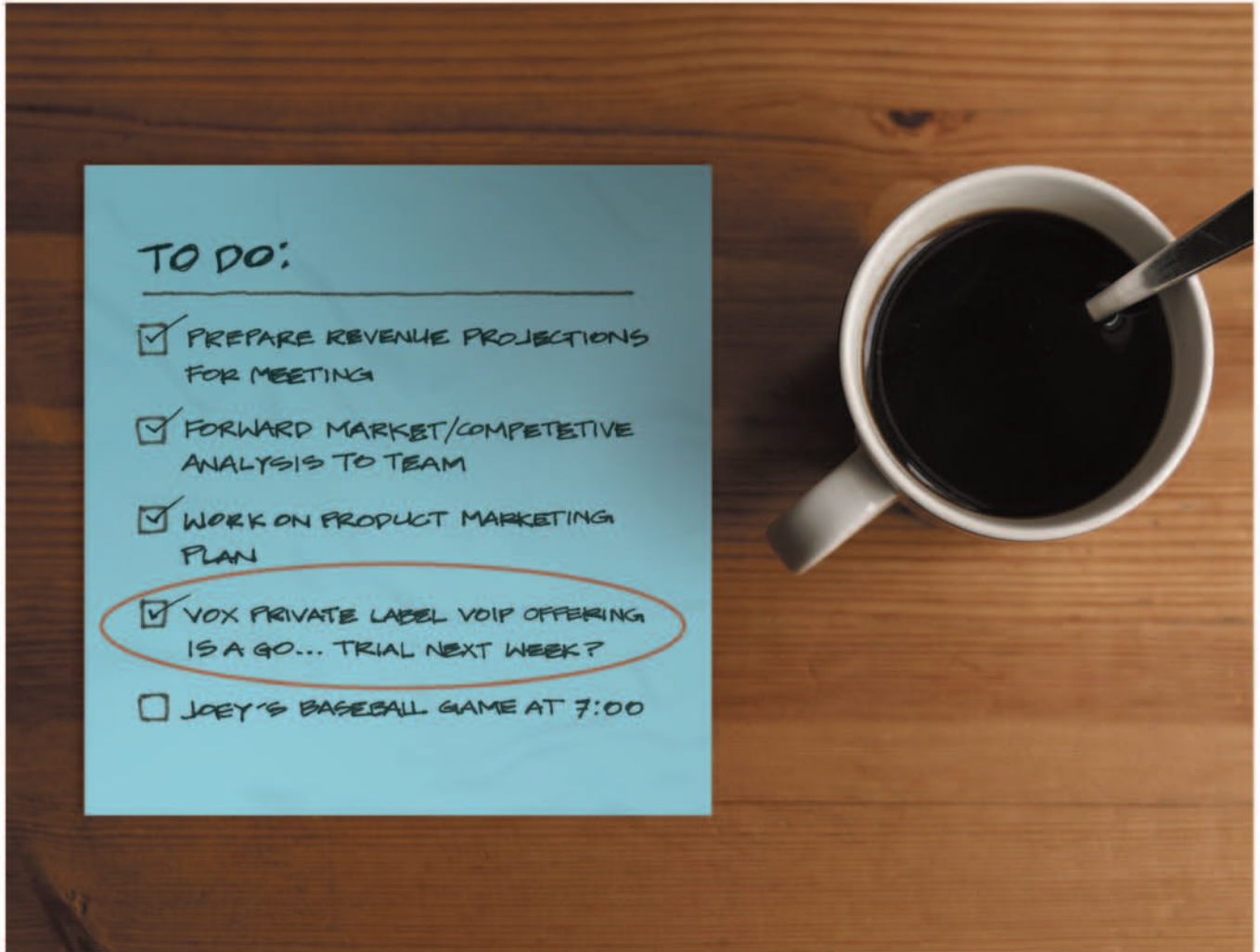
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Patton and Pingtel Bring Enterprise Quality VoIP to SMBs with the SIPxNano

By Patrick Barnard

Patton Electronics, ([news - alert](#)) maker of the popular SmartNode and SmartLink VoIP solutions, and Pingtel Corp., ([news - alert](#)) maker of SIP-based enterprise class communications platforms, have teamed up to deliver the SIPxNano, a tiny IP PBX designed for small businesses with fewer than 30 extensions.

The SIPxNano is designed to deliver enterprise quality, SIP-based VoIP to SMBs. It combines Patton's NanoServ ultra-compact server technology with a tailored version of Pingtel's SIPxchange ECS software, thus delivering features that one would not normally expect from such a small, low-cost device. These include integrated voice mail and e-mail, auto attendants, IVR, and Web-based configuration and management.

The device is fully compatible with all industry standard IP devices, including Polycom phones and Patton's line of VoIP phones, gateways, and routers.

"Most small office IP PBX products skimp on features," said Scott Whittle, Patton's VP of product management. "Really useful next-generation features usually only get built onto large PBX systems, but that's not our style. We are giving small offices Fortune 500 functionality at a very affordable price."

<http://www.patton.com>

<http://www.pingtel.com>



8x8 Intros Packet8 Softtalk Office Softphone

By Michelle Pasquerello

VoIP services provider 8x8, Inc. ([news - alert](#)) introduced its latest softphone, targeting remote professionals and workers on the go. The most recent VoIP solution, known as Packet8 Softtalk Office, is for use with the Packet8 Virtual Office hosted PBX phone service for business.

Priced at \$9.99 per month including 200 minutes of calling time in the U.S. and Canada, Packet 8 Softtalk Office offers a full set of features for the virtual office without the need for a separate telephone. According to officials at 8x8, the newest installment allows businesses to reduce their expenses while boosting employee productivity. Among some of the features included are extension dialing, conference bridge ability, call forwarding, message waiting indicator, call timer and business class voicemail with voicemail to e-mail.

"Now, when employees travel, they no longer need to rely solely on their cell phones to make and receive business calls. They can simply plug a headset into their laptop and tap into the same powerful features and cost-effective calling capabilities their company enjoys with our Virtual Office Hosted PBX phone service," said Huw Rees, 8x8 vice president of sales and marketing.

8x8 also announced week its Packet8 Softtalk 1.5 upgrade with enhanced H.264 video codec, a solution that improves the videoconferencing experience by incorporating next-gen video compression technology and can accommodate up to six participants at the same time.

<http://www.8x8.com>



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Viola Expands VoIP Call Quality Measurement Solution

By Erik Linask

Viola Networks ([news](#) - [alert](#)) has introduced significant enhancements to its NetAlly Lifecycle Manager, that will provide customers even more tools for ensuring the voice quality over their networks meets Service Level Agreements and, in instances where it does not, helps isolate the problem areas.

NetAlly is a fully integrated solution for pre-deployment readiness assessment, helping to facilitate successful roll-out, while also supports the network environment post-deployment with monitoring, troubleshooting, reporting, capacity planning, and network optimization.

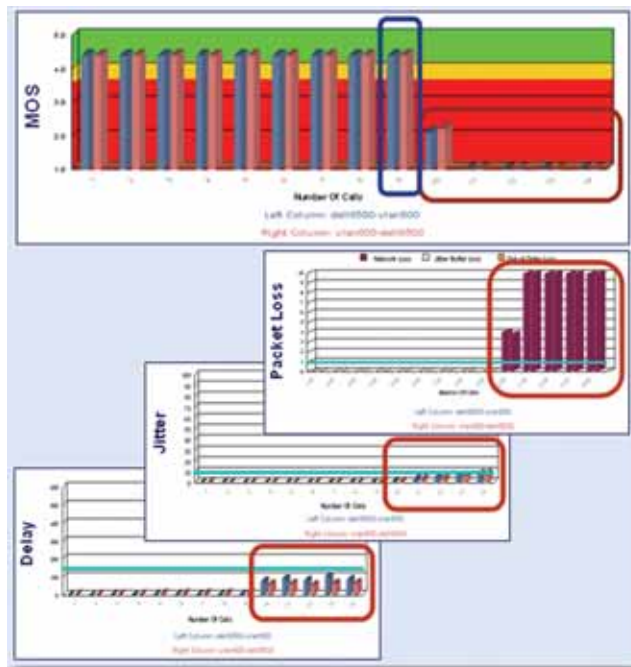
Release 5.1 includes Viola's Service Level Index (SLI), which enables service providers and enterprises to accurately measure groups of VoIP calls — from a particular location, across a common access link, or from a particular carrier networks — extending the value of the service quality reports provided by the software. The result is a "standardization of aggregating call quality metrics into a single index that can be used to look at a high level of call quality across a VoIP environment," explained Dave Zwicker VP of Marketing at Viola Networks.

Companies can ensure that they have overall 99.9 percent system availability — where the system on aggregate achieves the minimum MOS threshold (say, >4.0) 99.9 percent of the time. Then, administrators can drill deeper to see where specific problems arise to improve on performance levels. And while MOS is the most common measurement technique for voice, NetAlly Lifecycle Manager can also report on packet loss, delay, and even metrics measuring performance outside of VoIP (e.g., page download time, cross-application data, e-commerce transactions)... really, any application with measurable metrics. This makes Viola's solution considerably more valuable a product that measures just call quality.

The system includes a variety of core reports that users will find useful in assessing the quality of calls over their networks. But more sophisticated users are also able to adjust reports and even create new ones using Crystal Report Editor.

In addition to the software upgrade, Viola is also now shipping a small form factor hardware appliance, which makes the product a complete turnkey solution. Previously, customers were left to fend for themselves in finding hardware on which to run Viola's software. The addition of the Hardware Traffic Agent (HTA) makes NetAlly Lifecycle Manager a simple, one-stop solution for enterprises, service providers, or systems integrators.

<http://www.violanetworks.com>



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QuickPlay Media's QuickPlayer Quickly Delivers News, Entertainment to BlackBerry

By Patrick Barnard

QuickPlay Media Inc., ([news](#) - [alert](#)) which provides mobile entertainment solutions, has announced the first round of media partners for its QuickPlayer for BlackBerry. That means BlackBerry users whose carriers deploy the QuickPlay Personal Entertainment Server can now access audiocasts from top-tier media companies and providers including ABC News, AccuWeather.com, Clear Channel, Gaiam, MarketWatch.com, The Wall Street Journal and Westwood One. Because these audiocasts are streamed, there is no download time. Each audiocast lasts up to five minutes.

QuickPlay claims QuickPlayer is the first application to deliver streamed audiocasts to BlackBerry devices. Through it, users can have easy access to business and finance updates, as well as news, entertainment and health and sports information.

"QuickPlay Media has lined up a solid mix of targeted media content for BlackBerry users," said Jeff McDowell, vice president, alliances, Research In Motion, in a press release. "Streaming audio services complement other BlackBerry applications and provide another convenient and valuable source of information for mobile users."

QuickPlay combines proprietary streaming technology with advanced audio codecs natively supported in the BlackBerry 8700 Series, BlackBerry Pearl and BlackBerry 7130 Series. The audiocasts are said to deliver high fidelity, which can be important when viewing entertainment clips including music or low sound levels.

The QuickPlay Personal Entertainment Server manages all aspects of the mobile media service including content management, subscription management, content delivery, and billing integration. Content can be aggregated by QuickPlay or by carriers themselves.

<http://www.quickplay.com>



CounterPath and Intrado Develop IP Softphone to Support E9-1-1

By Johanne Torres

CounterPath Solutions ([news](#) - [alert](#)) announced that it teamed up with VoIP E911 technology provider Intrado ([news](#) - [alert](#)) to develop a new functionality within CounterPath's softphone to support automatic location identification on mobile VoIP 9-1-1 calls.

The deal will enable CounterPath's softphone to integrate directly with Intrado's systems to automatically detect and send location information whenever a 9-1-1 call is made from a wireless VoIP device. This will direct the calls to the appropriate public safety answering point (PSAP), so that emergency operators are able to link the caller's current physical location with the phone number used to dial for help.

"As the predominant provider of IP softphones, CounterPath was a natural partner for this initiative," said Intrado's chief technology officer and cofounder Stephen Meer in a statement. "The company's technical and development expertise were instrumental in helping us successfully test the viability of having a softphone automatically provide location information for mobile VoIP 9-1-1 callers."

The companies conducted a trial last month throughout New York City. According to the companies, the CounterPath/Intrado VoIP location technology test was successful during the joint E9-1-1 trial throughout the city, and proved the technology's consistent location identification ability.

"Being able to support E911 is a key requirement for our customer base. We're committed to delivering this functionality as part of our focus on delivering leading multimedia applications to global service providers and OEMs," stated Donovan Jones, president and chief operating officer at CounterPath. "Intrado is at the heart of the nation's 9-1-1 network and has a track record in pioneering E9-1-1 solutions for emerging technologies. We're pleased to be working with Intrado on this important initiative and expect to work together on similar joint development initiatives in the future."

<http://www.counterpath.com>

<http://www.intrado.com>

Vonage and Motorola Intro Co-Branded VoIP Adaptor with Router

By Johanne Torres

Vonage ([quote - news - alert](#)) and Motorola ([quote - news - alert](#)) announced the introduction of a new co-branded VoIP adaptor with router, the Motorola VT2142. The device single is a port router equipped with a two-line telephone adaptor, configured with Vonage's service. The Motorola VT2142 will be available online, at no cost, thanks to a \$49.99 instant rebate. The companies plan to soon also offer the product in retail stores.

"As Vonage always seeks to offer a variety of hardware choices, we are pleased to offer Motorola's new product for our less expensive, flat-rate, full-featured calling plans.

Motorola is a proven partner and we are happy to add another one of its devices to our portfolio," said Vonage Network, Inc.'s senior vice president of engineering, Daniel Smires. "Expanding our device offering with Motorola enables us to continue offering consumer-friendly, feature-rich voice terminal technologies, a simple way for consumers to benefit from Vonage's attractively priced, tiered calling plans."

<http://www.vonage.com>

<http://www.motorola.com>



INFONXX Grows its Footprint in the Fingertip Information Space

By Erik Linask

Directory assistance and enhanced information services provider **INFONXX**, ([news - alert](#)) with a mindset of growing its presence not only in the U.S., but globally as well, has completed two acquisitions that will help the firm continue to expand. **Excell Services**, ([news - alert](#)) a U.S.-based independent provider of directory assistance, operator services, and inbound customer service, and **Conduit Limited**, ([news - alert](#)) a European information services company will become part of INFONXX. With the addition of these two firms, INFONXX proclaims it will process more than one billion directory assistance inquiries this year.

"These acquisitions progress the INFONXX growth strategy, bringing innovative service development and an extension of our global network of capabilities and markets," said Robert Pines, Global CEO and Founder of INFONXX. "The expanded reach and resources of INFONXX will be good for customers and employees alike."

INFONXX products include 411 Plus enhanced directory assistance, TeleMas Spanish language services, Text Direct, a two-way SMS directory assistance listing, txt/ad in the United Kingdom, an innovative Pay-Per-Text ad channel enabling advertisers to reach potential customers via SMS, and many more.

Excell Services provides directory assistance (DA), operator services (OS), and inbound customer services (CRM) to the telecommunications, healthcare and retail food industries from call centers throughout North America and the Philippines. The acquisition of Excell increases capabilities, momentum, and adds more service options for current INFONXX customers.

Dublin, Ireland-based Conduit provides directory inquiry and customer care solutions from call centers in Ireland, UK, Switzerland, Austria, and Spain. Among the company's specialties is its growing customer care services portfolio for blue-chip clients, through which it provides customer support, sales, and back-office functions, an important and growing aspect of the company's portfolio of services. Conduit also has an online portal through which it provides directory assistance.

<http://www.infonxx.com>

<http://www.excellxvcs.com>

<http://www.conduit.ie>

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Sony Ericsson and Fossil Intro Bluetooth Watches

By Stefania Viscusi

Next on the list to bring together fashion, technology and mobility — your wristwatch. No longer just a time-telling device, wearing a watch will also now increase the efficiency of mobile communications, as [Sony Ericsson](#) ([quote](#) - [news](#) - [alert](#)) and Fossil Inc. have partnered to develop a line of wireless Bluetooth compatible watches.

The idea behind the convenience of the new technology is that glancing down at your wrist is effortless and can make handling calls more efficient. Incorporating these new functionalities into the wristwatch also brings features like Caller ID and control of a media player on a mobile phone to the wrist.

The newly designed watches, adopted from top selling Fossil watches, will link seamlessly to most Sony Ericsson Bluetooth enabled mobile phones.

"The Bluetooth watch represents the best of both the world of fashion in its classic attractive design and the world of technology in its innovative functionality. That synergy will change your relationship with your mobile phone," commented Daniel Sandblom, product planner for Sony Ericsson.

The new technology will allow users to "view incoming caller ID information on the watch face" and, "when users are unable to answer their phone, a single button press can mute or reject an incoming call." This eliminates the need to rummage through a purse or dig in a pocket for the phone. Other features include an envelope icon and vibration to alert callers of a voicemail or text message.

<http://www.sonyericsson.com>



Pangean Technologies Officially Releases Y-Talk Mobile VoIP Solution

By Patrick Barnard

[Pangean Technologies](#) ([news](#) - [alert](#)) has released a new WiFi telephony solution that turns any handheld based on Microsoft Windows Mobile 5.0 into a "Walkie-Talkie" type device using Push to Talk.

The solution, called Y-Talk, is aimed at the enterprise market and grew out of Pangean's popular insta-REACT! solution. Pangean is marketing the solution on its ability to increase employee mobility — thus increasing productivity. The company specializes in SIP-based VoIP

applications for both internal and external enterprise communications. Its open-system solutions leverage existing network infrastructure to deliver efficient communications to each user's desktop or handheld.

"We recognized the need to bring to market a solution that will transform the way the mobile workforce communicates in environments where internal instant communications are critical, such as the retail and warehouse environments," said Tarun Kapoor, CEO of Pangean Technologies. "We believe that Y-Talk offers a unique solution for enterprises needing the ability for mobile employees to instantly communicate with team members and groups of colleagues at the push of a button. By leveraging the existing WiFi infrastructure, in-building communications can be readily achieved with very little, if any, infrastructure investments."

In a move that will likely accelerate adoption of the new solution, Pangean has also partnered with Symbol to integrate Y-Talk on Symbol's MC70 and MC9090 (and soon MC50) Enterprise Digital Assistants (EDA).

<http://www.pangeantech.com>





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Sprint Prepares for EV-DO Rev. A with Sierra Wireless

By Erik Linask

In preparation for the migration of its existing EV-DO network to even higher speed EV-DO Rev. A later this year, [Sprint \(quote - news - alert\)](#) has at its disposal two Rev. A products from Sierra Wireless. The wireless technology developer has announced it is ready with two wireless products that, in accordance with EV-DO Rev. A standards, will enable faster uploads and downloads — the Sierra Wireless AirCard 595 wireless broadband card and the Sierra Wireless MC5725 embedded mini card.

Sierra [\(news - alert\)](#) has already begun shipping the AC595 to Sprint, and the MC5725 PCI Express Mini Card embedded module been certified for use on the Sprint Power Vision Network. Commercial shipments of the MC5725 are imminent.

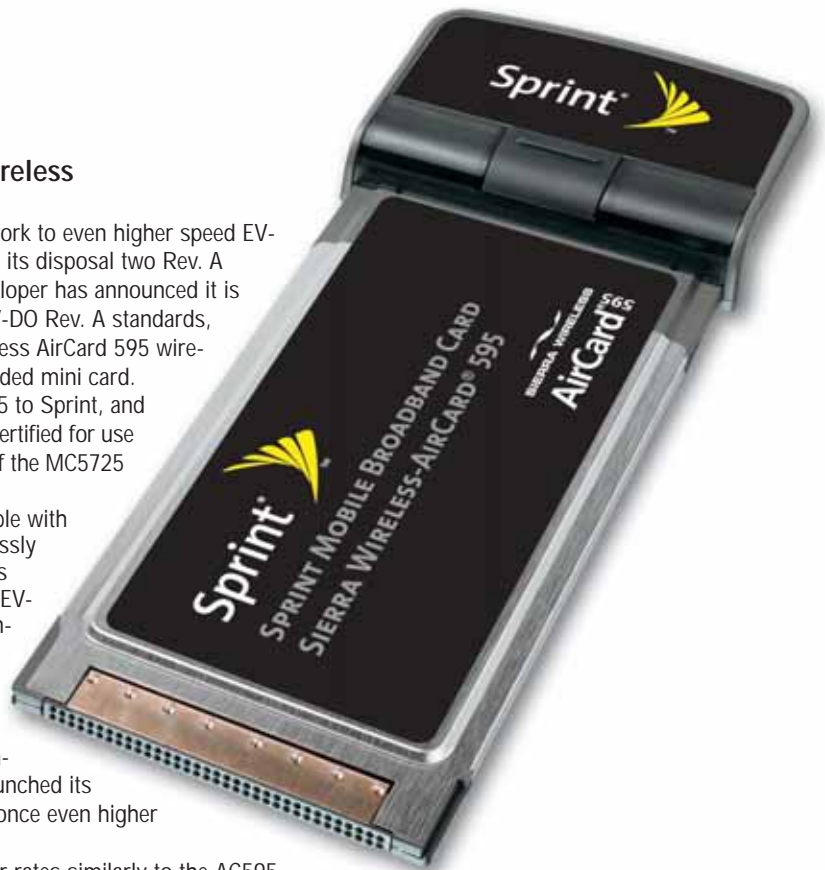
Both new products from Sierra Wireless are fully compatible with Sprint's existing Power Vision Network, and both will seamlessly migrate to the upgraded EV-DO Rev. A network as it becomes available. Sprint estimates some 40 million people will have EV-DO Rev. A access available by the end of the year. The advantage Rev. A technology represents for customers is its capacity for speeding up average download speeds to 450-850 kbps and average upload speeds to 300-400 kbps.

The AirCard 595 is a Type II PCMCIA card that is capable of data transfer speeds up to 3.1 Mbps on the downlink and 1.8 Mbps on the uplink, so, even once Sprint has launched its Rev. A network, the Sierra products will still be future ready once even higher speeds are available on Sprint's network.

The MC5725 PCI Express Mini Card improves data transfer rates similarly to the AC595, but it is designed to be integrated directly into notebook PCs and other portable computing devices to enable built-in wireless network access.

<http://www.sprint.com>

<http://www.sierrawireless.com>



Alcatel and Nokia Team Up to Extend Business Telephony

By Johanne Torres

[Alcatel \(quote - news - alert\)](#) and [Nokia \(quote - news - alert\)](#) announced they have joined forces in order to extend Alcatel's business telephony offering to the mobile workforce by way of the Nokia Eseries, a suite of business class devices. The Intellisync Call Connect for Alcatel will integrate Nokia Eseries devices into the Alcatel IP Communication server.

With Intellisync Call Connect for Alcatel in place, popular desk phone functionalities are available to the mobile user, such as call conferencing, call back, and dial by name. Employees will be able to manage just one business number and control where and when and on which device they receive their calls.

The IP telephony infrastructure's offering will also enable businesses to utilize Alcatel's Least Cost Routing capabilities for lower international mobile calling.

"Together with Alcatel, Nokia has a great opportunity to expand the adoption of converged mobility solutions," said Nokia's vice president, mobility solutions Scott Cooper. "While enterprise voice solutions from Nokia are designed to work with leading enterprise communications solutions, the introduction of the new solution that integrates Nokia Eseries with the Alcatel OmniPCX is a significant milestone for us."

Alcatel's OmniPCX Enterprise delivers Alcatel's Cellular Extension software to enable Intellisync Call Connect. Currently, Intellisync Call Connect for Alcatel utilizes the cellular network to connect to a company's PBX infrastructure, and will be enhanced to support both cellular and WiFi networks with dual mode phones in the near future.

<http://www.alcatel.com>

<http://www.nokia.com>



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Swisscom and Ciena Optical Platforms Certified by Metro Ethernet Forum

By Laura Stotler

Ciena Corporation ([news - alert](#)) and Swisscom ([news - alert](#)) have announced Carrier Ethernet certification for their respective optical platforms. The Swisscom Carrier Optical Service and Ciena's CN4200 FlexSelect Advanced Services Platform and CN 2300 Managed Optical Services Multiplexer have been certified to deliver Metro Ethernet Forum (MEF) compliant Ethernet Private Lines.

The certification is based on the MEF's MEF9 technical specifications for Ethernet Services at the User Network Interface. The MEF Carrier Ethernet Certification Program aims to accelerate rollout of carrier Ethernet services by reducing the time and cost of equipment testing. It is also designed to provide end users with reliable services across service providers and network equipment. The Swisscom and Ciena platforms were tested by Iometrix through the MEF-approved "Test Plan for Ethernet Services at the UNI."

"We've seen tremendous uptake in our Carrier Optical Service from enterprises looking for flexible bandwidth options backed by strong service level agreements for mission-critical data center, business continuity and other wide area network applications," said Thomas Aeberhard, Head of Data Services, Swisscom Fixnet Wholesale. "As customers increasingly move to Ethernet and look for services that are standards-based, this Carrier Ethernet certification will only broaden the appeal of our market leading Carrier Optical Service."

"As a Charter Member of the MEF, this certification reflects our early focus on developing innovative optical Ethernet platforms for delivering MEF-certified Carrier Ethernet services," said Martin Nuss, vice president and chief technologist at Ciena. "Swisscom was the first to deploy CN 4200 and we've worked closely with them to ensure our optical Ethernet platforms create a flexible network capable of delivering a variety of Carrier Ethernet and storage extension services with automated provisioning and advanced service level management."

<http://www.ciena.com>
<http://www.swisscom.com>



GL Enhances VoIP Testing Tool

By Erik Linask

GL Communications ([news - alert](#)) has announced enhancements to PacketGen, the company's software-based VoIP testing tool. In addition to network and equipment analysis, the tool is designed for stress testing and real-time individual and bulk call generation, including SIP and RTP/RTCP traffic. The latest additions to PacketGen increase the potential applications of the software.

With CLI (Command Line Interface), PacketGen's capabilities can now be incorporated into an automated test environment, allowing users to create their own scripts using simple text commands and run them at the Windows command line, a feature that is designed to replace the manual GUI. CLI also allows control of multiple SIP cores, as does the GUI. CLI also eases integration of PacketGen into other third-party applications, even further increasing its flexibility.

For network-wide voice quality testing, once users have configured PacketGen for call generation across their networks, the software can automatically generate and receive calls using the RTP traffic-scripting feature and synchronous voice file transmission and reception. In conjunction with GL's VQT software, users can actively measure and monitor network voice traffic.

PacketGen's new scripting feature allows a new way to perform RTP traffic actions, providing increased control and flexibility. Commands are available to perform all GUI functions. Calls can be individually configured for scripts, or the same script can be used across several calls, and users can load scripts and view script progress in real time. PacketGen also now includes an RTP Script Editor, which allows easy building of RETP scripts via a GUI application and point and click setup.

<http://www.gl.com>

CLARISYS

Clarisy's i750H USB Internet Phone

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The Clarisy's i750H is a full-featured USB IP telephone and speakerphone that provides a crystal-clear digital interface to your PC essential for your VoIP phone communications. Its stylized design is equipped with all the familiar features of a traditional telephone with the added benefit of a specially designed headset port for hands-free communication. Plus the single number portability provides unlimited accessibility!

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CLA-i750H

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Toll Free: 800.252.1718
Fax: 630-521-9493

Xirrus Awarded Patent for WiFi Array Design

By Erik Linask

Xirrus, ([news](#) - [alert](#)) a three-year-old company that provides WiFi connectivity hardware for the enterprise and SMB space, has recently been awarded its first patent for the design of its WiFi Array.

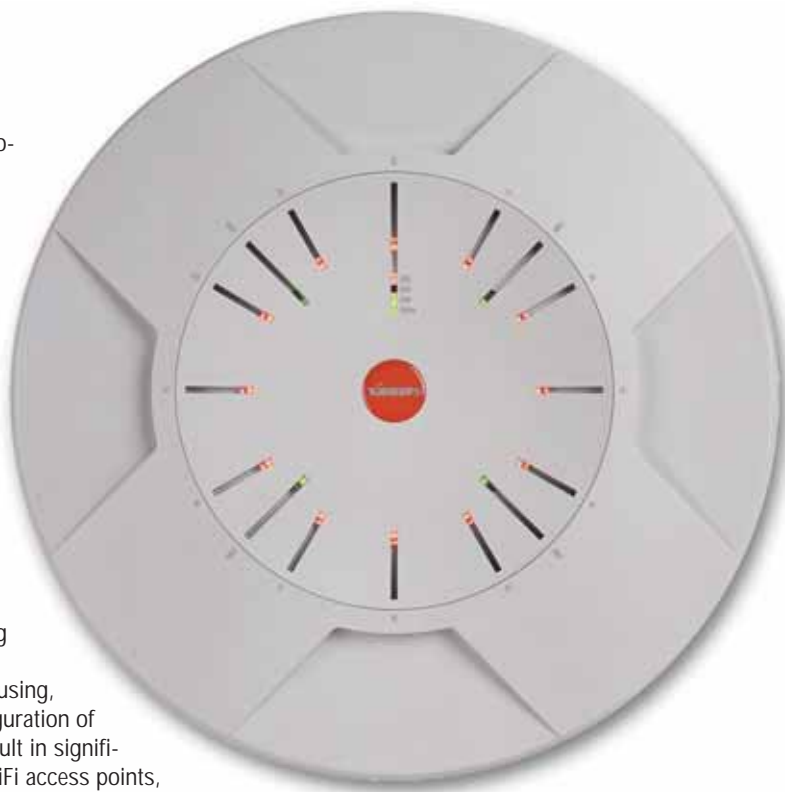
United States Patent Number US D526,973 S has been issued covering the physical housing of the product — which is what is eye catching in and of itself. If you were to walk past their booth, say at a trade show, you would have a hard time missing what appears to be a pie-sized smoke detector. In reality, that eye catching device is Xirrus' high capacity, long range WiFi array.

"This patent the result of a series of applications designed to strengthen our Intellectual Property portfolio solidifying our position as an innovator in the WiFi market," said Dirk Gates, CEO of Xirrus. "Our first design patent on the WiFi Array makes it tougher for our competitors to deliver a high capacity wireless networking solution."

While the patent specifically addresses the physical housing, the real power behind Xirrus lies in the 360-degree configuration of the four, eight, or sixteen radios in the devices, which result in significant capacity and range improvements over traditional WiFi access points, despite using the same technology. The Arrays also incorporate a WLAN switch/controller with the Integrated Access Points (IAPs) in its devices, further helping defray the cost of a wireless deployment. The Arrays connect directly to the Ethernet or they can be connected wirelessly to each other via their radios.

Each Xirrus WiFi Array is capable of handling and prioritizing 180 simultaneous VoIP, 45 simultaneous SDTV video streams, wireless Fast Ethernet backhaul links between Arrays, Gigabit Ethernet uplinks to the Wired network, and fast roaming between radios within an Array and between Arrays.

<http://www.xirrus.com>



Sangoma Ships New PCIe Cards to Support VoIP Applications

By Erik Linask

Sangoma Technologies Corporation, ([news](#) - [alert](#)) which develops connectivity hardware and software products for VoIP, TDM, and other voice and data infrastructures, is now shipping its complete line of enhanced PCI Express (PCIe) cards.

"There is a significant trend as the computer industry migrates towards PCI Express bus compatibility, especially at the high end," says Sangoma Technologies President and CEO David Mandelstam. "In particular the A108 card, which, at 240 call capacity, is the highest density PC voice card existing today, is well suited to support the new high performance PCIe servers used in large telephony applications."

PCI Express is a new standard computer bus using existing PCI programming theory, but bases it on new and faster physical serial layer protocols. The expectation is that PCIe will quickly replace standard PCI in high-end servers and workstations — like those required to support telephony.

Making use of this new bus architecture, Sangoma's Octal port A108, Quad port A104, and dual port A102 T1/E1 cards, as well as its A200 analog voice system, are all now available in PCIe format — which is based on the company's Advanced Flexible Telecommunications (AFT) card family.

"The beauty is that the change to PCIe is completely transparent to the user. All Sangoma's drivers, utilities, and APIs continue to work exactly the same way for PCIe as for the older PCI standard busses," added Mandelstam.

<http://www.sangoma.com>

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Motorola Intros SIP-based VoIP Cable Modem Offering

By Johanne Torres

Motorola ([quote](#) - [news](#) - [alert](#)) introduced the SIP-based SBV5100 series, a new addition to its suite of voice-enabled cable modems. As part of the company's broadband telephony product suite, the SBV5100 series converges voice and data on one network, in one product. Bundling multiple services in one unit will offer consumers an array of advanced voice services. The SBV5100 supports primary VoIP-based telephone service for up to two telephone lines that are terminated in two RJ-11 connectors.

"Operators around the world are already making the move toward SIP-based products," said Charles Dougherty, corporate vice president, Motorola Connected Home Solutions business. "By providing a voice-enabled cable modem with the SIP protocol, Motorola enables cable operators to not only expand their offerings with voice today, but to lay the foundation for new feature-rich voice and multimedia services, such as fixed/mobile convergence. This new family of gateways further establishes Motorola as a global leader in voice over IP technology that fuels growth for operators and extends the concept of seamless mobility for consumers."

The series also features one infrastructure for communication services; voice and data service single billing; simultaneous use of phone line and high-speed data services; and support for a variety of CLASS features provided today by the telephone company, such as caller ID, call waiting, and call forwarding. In addition, its integrated cable modem connects to a computer through either a 10/100Base-T Ethernet or a USB data port.

<http://www.motorola.com>

ClearOne's SIP-Based Conference Phones Rated Avaya Compliant

By Erik Linask

Audio conferencing solution provider ClearOne ([news](#) - [alert](#)) announced that the its MAXAttach IP and MAX IP tabletop conference phone solutions are compliant with key session initiation protocol (SIP)-based IP telephony solutions from Avaya. ([quote](#) - [news](#) - [alert](#))

The MAXAttach IP and MAX IP tabletop conference phones bring crystal clear audio conferencing to the boardroom and conference table. As with ClearOne's MAX line of analog conference phones, up to four of these SIP phones can be interconnected, delivering expanded audio coverage and distributed dial pad control. In particular, the solution is well suited for both long conference room tables and U-shaped table configurations.

MAXAttach IP and MAX IP have been tested by Avaya and are now rated as compatible with all Avaya SIP-based solutions, including the S8710 Media Server, G650 Media Gateway, SIP Enablement Server, and 4600-series IP telephone handsets.

"Achieving Avaya compliance on our SIP tabletop platform can give businesses complete confidence in deploying MAXAttach IP and MAX IP in an Avaya SIP environment," noted

Zee Hakimoglu, CEO and president of ClearOne. "Our combined Avaya-tested solution delivers all the benefits of VoIP, along with the crisp audio clarity that ClearOne customers have come to expect. Both companies are committed to open standards, including SIP, which enables our customers to implement telephony and conferencing solutions more easily and cost effectively."

www.clearone.com
www.avaya.com



New IP-Based Predictive Dialer Available from Interactive Intelligence

By Susan J. Campbell

([news](#) - [alert](#)) A new VoIP-enabled version of its outbound dialing and campaign management software, Interaction Dialer, has been released by Interactive Intelligence, a global developer of business communications software. Interaction Dialer is a solution designed for contact centers, teleservices firms, and collections operations.

Now based on the SIP standard, this latest release of Interaction Dialer can operate in an all-software, all-VoIP environment in order to help reduce costs and simplify management.

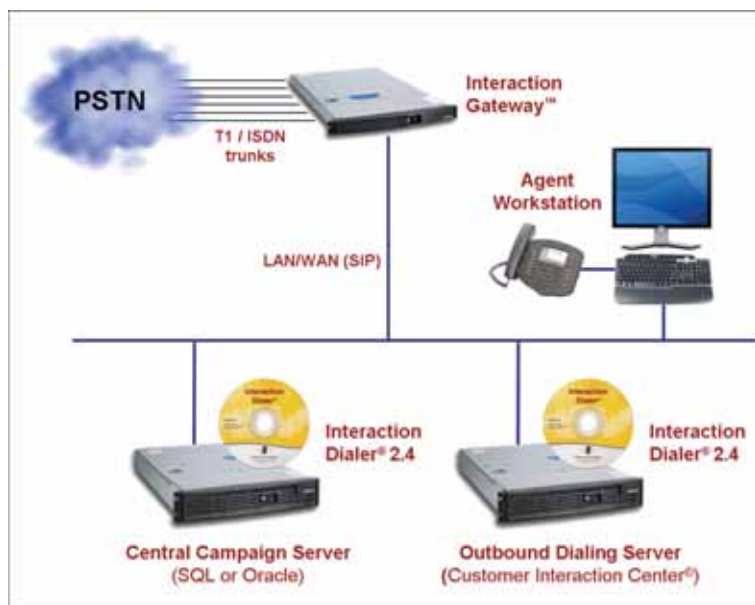
The release includes an all new SIP gateway called Interaction Gateway, which is an application connecting legacy telephone trunks (T1s) to VoIP ([define](#) - [news](#) - [alert](#)) networks. Combined with Interaction Dialer, Interaction Gateway provides high-volume outbound contact centers accurate predictive call analysis capabilities.

According to Yankee Group senior analyst Ken Landoline, Interaction Gateway is unique in that it provides advanced outbound call analysis, such as distinction between answering machines versus live speakers, and wrong numbers versus network issues, while taking full advantage of the open SIP standard.

Landoline added that combined, these enhancements result in more effective dialing campaigns, simplified deployment and configuration, lower cost, better redundancy and unbeatable flexibility compared to that of traditional outbound dialing solutions.

Interactive Intelligence has positioned the new SIP-based Interaction Dialer as having the ability to lower costs by between 10 and 50 percent compared to traditional TDM-based dialers through the reduction in hardware requirements.

The company claims that Interaction Dialer can reduce costs even further by using Interaction Gateway at strategic locations to ensure that it uses the most cost-effective call routing. In a typical configuration, ISDN PRI trunks from the public phone network are connected to Interaction Gateway. After that point, the entire configuration is VoIP which provides significant geographic independence. <http://www.inin.com>



MobileIGNITE Announces Release v1.0 of Functional Specification for Fixed Mobile Convergence Handover

MobileIGNITE, ([news](#) - [alert](#)) the industry association fostering collaboration to accelerate fixed/mobile convergence (FMC) through interoperability, announced the release of v1.0 of its Functional Specification for FMC Handover.

Developed by the Handover Interoperability Group of MobileIGNITE, the Functional Specification will allow an FMC Service Provider to specify Session Initiation Protocol (SIP)-based technology from vendors that allows a user with a dual-mode cellular/Wi-Fi mobile phone to be able to connect via both WiFi (fixed) and GSM/UMTS (mobile) access networks. The user will receive the same voice services using a single phone number as the user crosses networks — including the seamless continuity of an in-process voice call.

The Functional Specification covers implementation of FMC Handover on current GSM Networks that conform to the 3rd Generation Partnership Project (3GPP) Release 99 and Release 4 reference architectures, as well as IMS reference architectures that conform to 3GPP's Release 5, 6 and the upcoming Release 7. By specifying these guidelines to their vendors, FMC Service Providers can deploy FMC Handover in the short term on their current networks, and be assured of continued multi-vendor interoperability between handsets and network elements during the transition to IMS.

A key goal of the Functional Specification was to ensure that dual mode cellular/Wi-Fi handsets that perform handover on current networks will not need to be modified or replaced when the network evolves to IMS, and becomes compliant with the VCC standard — and can continue to operate with no impact to the user. This removes the risk for handset manufacturers and service providers to deploy SIP based handover capable dual mode handsets for use on current networks and accelerates the market for FMC Handover services. <http://www.mobileignite.org>

Panasonic Unveils Hybrid IP PBX

By Patrick Barnard

Panasonic ([news](#) - [alert](#)) has introduced the KX-TDA600, a full-featured, highly flexible, hybrid IP PBX that can be used to deliver only the services and features a business needs... when they are needed. The integrated system, which serves a maximum of 160 ports (960 ports with DXDP), can be used for either VoIP ([define](#) - [news](#) - [alert](#)) or ISDN. In either case it uses QSIG, a high-level protocol for system-to-system communications, to allow the network to operate as if it were a single, cohesive unit.

The system can also be used to quickly set up a wireless network that enables employees stay connected anywhere within a coverage area — the system is capable of handling up to 512 wireless handsets. When used in conjunction with the gateway and extender or IP handsets, it enables home workers and employees at remote branches to access all the features delivered by your company's central communication platform.

Also making the KX-TDA600 attractive is the fact that it can easily be expanded. With its free slot architecture, one can easily insert expansion cards and access new features, as well as expand the system's capabilities. The system's modular design also makes it much easier to service and maintain.

The system is particularly useful in call center applications, having "a built-in UCD feature that allows calls to be distributed and organized according to purpose and priority, making a call center more efficient while keeping the customer's needs at the forefront," according to Panasonic. "Calls can be queued while lines are in use and music or a prerecorded promotional message can be played for waiting callers to help reduce lost calls and missed business opportunities. Calls can also be assigned to an additional back-up destination for those not answered within a specific amount of time."

"Panasonic designed the KX-TDA600 as a long-term solution for businesses," said Larry White, national marketing manager for Panasonic. "This power and versatility allows a business to manage calls effectively, keep employees in communication with each other, and let them all concentrate on their business, instead of worrying about missed or dropped calls, or busy phone lines."

<http://www.panasonic.com>



Bracken Bay Kitchens Selects Amcat

By Anuradha Shukla

Bracken Bay Kitchens will use Amcat's ([news](#) - [alert](#)) Contact Center Suite solution to extend its customer contact capability and improve appointment setting for its free customer kitchen design service. Initially, the kitchen specialist will use the technology to support 25 outbound agents and extend to 45 over the coming months.

Bracken Bay Kitchens wanted a system that was easy to manage in-house, and was user friendly for its agents. The company also wanted to extend its customer reach. By deploying Amcat's extensive data management capabilities, Bracken Bay Kitchens is expecting to grow and take greater control over its operations.

"Amcat's friendly and extensive IT support was also a major factor in our choice of system," explained Christine Fleming, director at Bracken Bay Kitchens.

Bracken Bay Kitchens has eight branch offices across the UK and Scotland, with its contact center based at Barnet, North London.

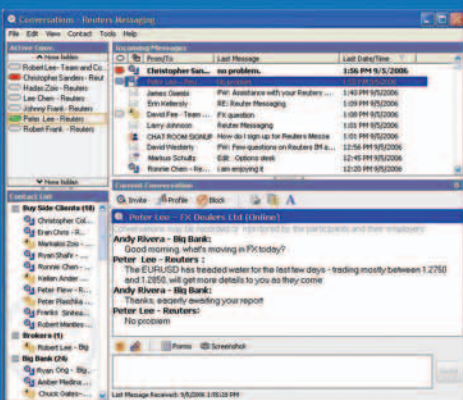
In future, Bracken Bay Kitchens plans to integrate its central database of over five million contacts with the Amcat system. In-house analyses of data will allow the company to monitor the success of specific campaigns by geographic location. The kitchen specialist will then pinpoint the successful areas via postcode and create new outbound campaigns to specifically target customers in those areas.

<http://www.amcat.com>

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David Gurlé leads the team responsible for the business and technical aspects of collaboration services including Reuters Messaging product development, service, marketing and sales initiatives. Since joining Reuters in early 2003, Much of this success has come from connecting Reuters Messaging with other communities and improving workflow productivity of financial information workers.

David has been recognized by CNET, VON Magazine and the securities' market as the thought leader for his achievement in establishing a very successful enterprise Instant Messaging service.

David brings more than 10 years of experience in the European telecommunications market and has earned the ETSI service award for his outstanding work in creating Europe's IP telephony initiative, TIPHON standardization working group. In addition to, David also co-authored 4 books on VoIP and IP Telephony.

David served in the advisory board of WebEx, eDial, IMLogic and currently sits on Akonix's customer advisory board. During his spare time David is an avid reader of science related books, runner, skier and cyclist and a devoted scholar of golf

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Mobile Call Centers from Five9 and Smart Partnership

By Susan J. Campbell

The call center market in the Philippines is set for further growth as [Smart Communications](#), ([news - alert](#)) a division of PLDT, and [Five9](#), ([news - alert](#)) a provider of on-demand telemarketing, customer service, and call center solutions for customer interaction management, have announced an agreement to establish call centers in the Philippines provinces.

The agreement provides that Smart will transform its Smart click Internet cafes — 40-foot air conditioned container vans that each houses 15 rentable computer terminals — into mobile call centers. Smart currently operates 20 similar Internet cafes in several Philippines cities and provinces.

Tina Z. Mariano, Smart Communications' head of Public Access Group, noted that with Five9's on-demand call center solution, Smart plans to deploy 1,000 call centers throughout the Philippines over the next year. After reviewing several options, Smart selected Five9 for its easy use, comprehensive features and the ability to work well in the mobile environment.

Thanks to a wireless connection, Smart Internet cafes provide high-speed Internet services up to one Mbps to residents in far-flung communities. The mobile design of the cafes is intended for the easy transfer in the case of natural calamities such as typhoons, which are common in some provinces like Batanes, without losing Web connection. Smart Click Internet cafes will now be provisioned with the revolutionary Five9 Virtual Call Center product that enables Internet cafes to operate as call centers.

By providing fully hosted call center solutions that enable companies to run contact centers without the large capital investment normally associated with premises-based call centers, Five9 has established itself as a formidable force in the industry. Small and medium-sized enterprises can take advantage of the Five9 Virtual Call Center to enter the industry quickly and with no upfront capital investment.

<http://www.five9s.com>

<http://www.smart.com.ph>

Echopass Telecenter Now Part of Salesforce.com On-demand CRM Platform

By Erik Linask

Hosted IP contact center provider [Echopass](#) ([news - alert](#)) has announced its Telecenter application is now available for salesforce.com's AppExchange. This collaboration seamlessly integrates the multi-channel contact center capabilities of Echopass and the on-demand CRM features of salesforce.com.

With the incorporation of Echopass, [salesforce.com's](#) ([quote - news - alert](#)) customer base gets a pre-integrated, on demand solution offered on a per user, per month basis, which means, first and foremost, that in-house integration costs are eliminated. In fact, with Echopass hosting the entire solution, the entire complexity associated with application deployment is circumvented. On the customer side, all that is required is a PC with a browser and a network connection — no high initial investment or recurring overhead costs, no continuing maintenance fees, and speedy deployment. Also since the Echopass service based on a monthly subscription, it is easily modified or scaled as necessary.

"The EchoSystem platform makes call center services affordable and more readily available for companies that want to avoid the significant implementation and upgrade costs of premises-based solutions," said Vincent Deschamps, CEO of Echopass. "Our platform was designed to meet evolving customer needs through a scaleable, end-to-end solution comprised of market leading technology integrated with our high value, always on contact center as the core."

The Echopass solution includes features to streamline lead generation and qualification, as well as general customer service and contact management. Echopass Telecenter includes the automation of both inbound and outbound contact interaction management and is specifically designed to improve the productivity of customer service and help desk teams. With the real-time visibility Echopass offers, it becomes easy to manage all customer issues. Echopass also integrates best-of-breed partner technologies and services, providing an even greater level of flexibility and reliability.

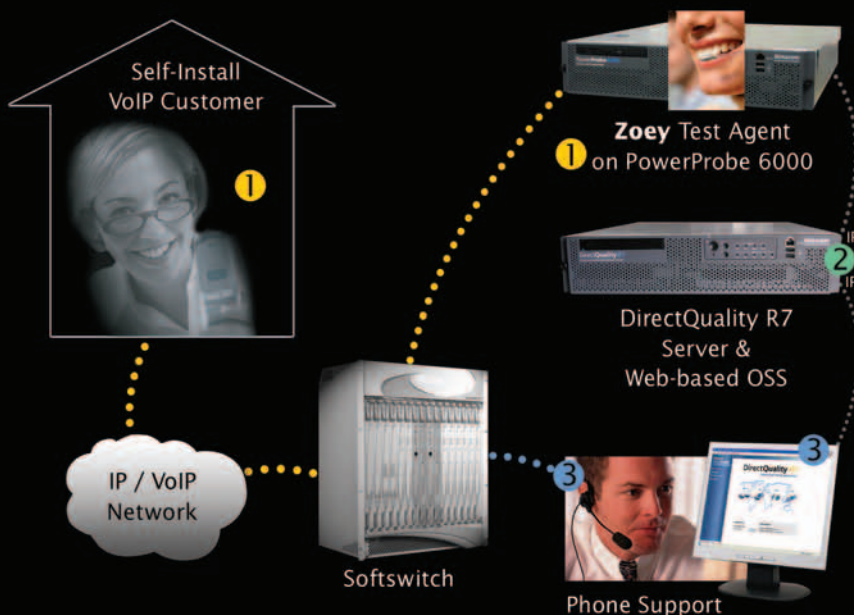
<http://www.echopass.com>

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3 If required, customer transferred to support. Test results on Web-Based OSS lead to quick problem resolution.

Offering self-install VoIP? FAQs on your web-site can help subscribers get to a dial tone, but who helps them if their caller ID is blocked, their friends are complaining about echo, or when their voicemail and fax don't work?

Minacom's Zoey is an automated IVR VoIP test agent customers can call to test their own service quality, 24/7. Subscribers interact with Zoey to check caller ID, echo, noise, speech quality (MOS), touch tone and fax transmission to discover if their handset or installation is the problem. If there's really an issue, Zoey transfers the call to your support team - with the test results they need to get your customers talking.

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Service Level Test Automation

VoIP-PAL Becomes Vonage Reseller

By Cindy Waxer

Just days after changing its company name, [VoIP-PAL.COM](http://www.voip-pal.com), ([news](#) - [alert](#)) formerly known as VoIPMDU.COM, has made a move that the company hopes will strengthen its current revenue base. Specifically, the broadband telecom company has announced that it has become a reseller of Vonage's VoIP products and services online. In addition to offering local and long distance VoIP services, VOIP-PAL.COM provides turnkey solutions for all of its voice/video/data applications.

The company's forward step as a [Vonage](#) ([quote](#) - [news](#) - [alert](#)) reseller marks an important benchmark in its progress to expand the VoIP-PAL subscriber/customer base and to create a larger, sustainable revenue base. VoIP-PAL.COM will link retail customer transactions for Vonage products from its Web site with direct contact to Vonage for order fulfillment.

<http://www.voip-pal.com>

<http://www.vonage.com>

CenterBeam to Sell CallTower's Hosted Voice and Data Services

By Patrick Barnard

[CallTower](#), ([news](#) - [alert](#)) a provider of "always on" hosted communications and collaboration solutions, recently entered into an agreement with CenterBeam Inc., an IT outsourced services company, which will enable CenterBeam to sell CallTower's hosted voice and data services.

CallTower's Enterprise Services and Application Suite offers a full range of services including Internet, VoIP, e-mail, fax, calling plans, network administration, single-wire connectivity, call center functions, Cisco CallManager (softswitch) provisioning, Microsoft Exchange integration, presence management, disaster-proof access to all data and voicemail, 24/7 customer support and full integration multiple offices and remote users. By providing communications services through a hosted system, SMBs can get enterprise class voice, data and application capabilities while at the same time saving money on network equipment, maintenance and service costs.

"With CallTower, companies can intensify their business process transformation and use their telephone and email services to create an integrated communication and collaboration system that increases revenue, saves time and capital expense, and delivers a stronger and more consistent experience," said John Trimmer, CallTower's president and CEO.

"CenterBeam's ([news](#) - [alert](#)) foremost value is Customer First, and one of the promises we make to our customers is to continuously improve the levels and types of service we deliver to them," Francis said. "Understanding the growing role that integrated telephony, voice, and data are playing in today's market, it was our goal to find a provider that offers the best technology solution and aligns with our priorities of service quality and exceptional customer satisfaction," explained Kevin Francis, president and CEO of CenterBeam.

<http://www.centerbeam.com>

<http://www.calltower.com>

Sphere Authorizes NEXTUSA as Spherical IP PBX Distributor

By Mae Kowalke

[NEXTUSA, Inc.](#), ([news](#) - [alert](#)) has become an authorized distributor of [Sphere Communications'](#) ([news](#) - [alert](#)) Spherical IP PBX. Through its network of value-added resellers and online partners, NEXTUSA will be distributing both the IP PBX and related support services.

"Sphere's powerful IP PBX combined with our broad array of standards-based telephony devices provides our resellers with everything they need to deliver scalable enterprise communications solutions," said NEXTUSA CEO Tom Boone.

Sphere Communications provides software-based solutions for enterprise telecommunications. The company specializes in IP PBX technology for service oriented architectures.

NEXTUSA, which has been serving the telephone industry for more than 30 years, has a network of more than 5,000 dealers around the world. The company's distribution channel consists of independent dealers both in the U.S. and abroad.

<http://www.spherecom.com>

<http://www.netxusa.com>

Skype and Thomson Partner on New Family of Consumer Products

By Stefania Viscusi

In a collaboration effort between [Skype](#) ([news](#) - [alert](#)) and [Thomson](#), ([news](#) - [alert](#)) the two companies have announced a partnership to develop a family of new consumer products. Their first joint offering is the GE DECT 6.0 Wireless Handset.

Digital Enhanced Cordless Technology (DECT) is included in the Skype-certified handset, meaning callers not only enjoy improvements to quality of their cordless telephone experience, but are also able to use the phones to make calls over the Internet.

This new combination further drives the adoption of Internet telephone communications in the home by making it accessible to users right from their handheld telephones.

Cordless telephones have in the past been noted for providing not so perfect communications including static and popping. With the DECT 6.0, these worries are resolved because technology built into the device offers optimal voice quality, free of interferences.

According to the companies, "The new GE DECT 6.0 Wireless Handset for Skype uses power management technology and boasts up to 120 hour standby time and 10 hour talk time."

"The fact that one of the top telephony providers in the world is offering a handset specifically designed for Skype is an incredible testimony and validation of the global popularity of Internet voice communications," commented Stefan Oberg, General Manager, Desktop and Hardware at Skype.

<http://www.skype.com>

<http://www.thomson.com>

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Iwatsu and Aizan Provide Hosted Enterprise Messaging Application

By Mae Kowalke

Iwatsu Voice Networks, ([news - alert](#)) which specializes in communications solutions for small and medium-sized businesses (SMBs), recently took a look at the needs of its clients, and concluded that more focus on hosted solutions was needed. Previously, the company was focused strictly on customer premise equipment (CPE), but, the hosted model has become attractive to many Iwatsu customers.

"We recognize there are applications that CPE equipment is simply incapable of supporting," said Iwatsu President David Carissimi, in a statement. "Ignoring these opportunities is not a viable option, not for Iwatsu, and certainly not for our dealers."

In order to broaden its portfolio into the hosted market, the company announced a partnership with Aizan Technologies. ([news - alert](#)) The deal allows Iwatsu to offer its clients access to Aizan's hosted Enterprise Messaging Application (EMA) capable of delivering messages targeted to groups of any size. Aizan specializes in designing, developing, and delivering solutions for voice, fax, e-mail, and SMS broadcast. The company's EMA uses high-capacity, hosted telephony technology to provide message broadcasting useful in a variety of applications.

"With the capability to broadcast thousands of messages per minute, EMA has given our business partners another way to accommodate their customers," Carissimi said.

One of those customers is United Space Alliance, NASA's main contractor for its space shuttle program. Using EMA, Iwatsu provided United Space Alliance with an emergency accountability application.

<http://www.iwatsu.com>

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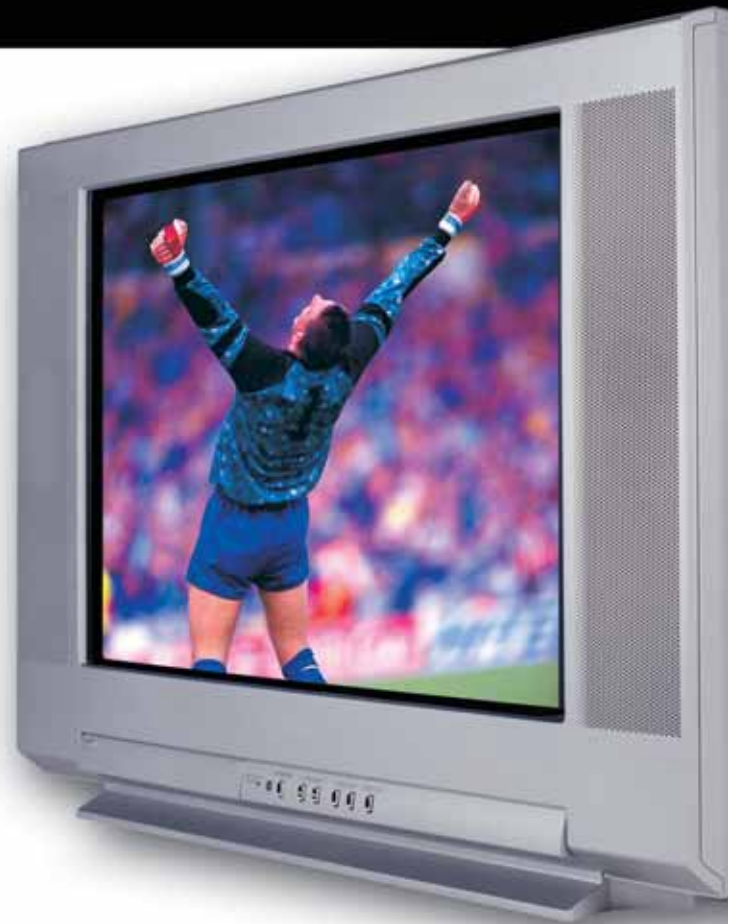
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By Marc Robins

VoIP Mash-Ups in a Web 2.0 World

A great deal has been written about the concept of “Web 2.0” — with much of it in search of a workable definition. The term has certainly become wildly popular, with many millions of citations in Google. But there is also much disagreement about what it means — while some dismiss it as a creation of marketing and PR hypesters, others embrace it as the new model for Web-based businesses and services.

According to Tim O'Reilly in his seminal piece “What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software,” he writes that the concept of Web 2.0 “got its start during a brainstorming session between O'Reilly Media and MediaLive International a few years ago, when web pioneer and O'Reilly VP Dale Dougherty noted that far from having ‘crashed’, the Web was more important than ever, with exciting new applications and sites popping up with surprising regularity” (see <http://www.tmcnet.com/378.1>).

Indeed, it's clear that the rise of “Web 2.0” has created a dazzling array of new companies, business models and services. *But it is also creating vast new opportunities for Web-based IP communications services, allowing service providers to leverage a toolkit of Web 2.0 technologies, including XML, SIP, RSS, REST, and AJAX, that allows them to integrate their communications services with other Web-based services so that they can interoperate in seamless and quite powerful ways.*

So what is a “Web 2.0” application? While it means many things to many people, we can safely say that at the most basic level it involves the use of a variety of Web-based technologies to provide highly flexible, feature-rich, personalized services delivered to end users. To make it all happen, these applications rely on a high-degree of integration and interoperability among an “ecosystem” of Web sites that allow them to share applications and data. The term “mash-up” was conceived as a way to illustrate the way APIs and data are combined to create brand new applications and services — for example, mashing up Google Earth satellite maps with specialized databases to create maps of home values (homevalues.com), or crime rates in specific Chicago neighborhoods (chicagocrime.org).

In his definitive piece mentioned above, Tim O'Reilly envisions the “Web 2.0” concept being bounded by seven guiding principles that are demonstrated in part or in total by true Web 2.0 applications. These include “The Web as Platform”, the “Harnessing of Collective Intelligence”, “Data is the Next

Intel Inside”, “End of the Software Release Cycle”, “Lightweight Programming Models”, “Software Above the Level of a Single Device”, and “Rich User Experiences.” *It is no accident that many of the breakthrough web-based IP communications services in operation today garner check marks for many of these principles.*

VoIP 2.0, a term championed by TMC, hints at the convergence of Web 2.0-based technologies and real-time IP communications services. It makes perfect sense, *since in a pure IP environment like the Web, IP Voice and video are treated like just another network application. Therefore, the possibilities for innovative Web 2.0/VoIP/IP video mash-ups are endless.*

Recently, there have been a number of early-stage VoIP mash-ups: tglo, the [VoIP \(define - news - alert\)](#) division of theglobe.com, announced a few months ago the availability of its tglophone for users of Monster.com. Job seekers at Monster will easily be able to enable their resumes and accounts with “click to call” capabilities. Recruiters can review resumes and immediately connect with job seekers for free around the world. In another tglo “mash-up”, Craigslist.com “phone icons” will appear next to product listings allowing for click-to-call connections between buyers and sellers. The eBay/Skype combination aims for the same synergies.

In the longer term, look for voice and video to be further integrated into our online existence — click-to-talk buttons that are part of the standard feature set of all software applications, Second-Life avatars that speak, rather than text chat, to each other; the spread of podcast-infused reviews of products and services. . . The list can go on and on. IT

The term “mash-up” was conceived as a way to illustrate the way APIs and data are combined to create brand new applications and services.

Marc is Chief Evangelism Officer of RCG (Robins Consulting Group), a leading marketing, communications and business development consult-

ing firm dedicated to the IP Communications industry. He welcomes your comments regarding examples of new Web 2.0/VoIP mash-ups making their way to market. For more information about RCG, email marc@robinsconsult.com, call 718-548-7245 or visit <http://www.robinsconsult.com>.

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By Tony Rybczynski and Greg St. James

IT Convergence Transforms the Unified Communications Landscape

IT convergence, the bringing together of telecommunications and IT technologies, represents an industry inflection point that will take Unified Communications beyond the early adopter stage to becoming mainstream in enterprises.

Unified Communications represents the unification of presence, real-time communications (IM, telephony, video, and application sharing) and near-real-time communications (email, voicemail, short message services) into a single user experience. It addresses the growing complexity of managing, securing, and using multiple modes of communications, to support increasingly mobile, global organizations. It is personal and intuitive, flexible and trustworthy, convenient, accessible from anywhere, on any device, and integrated with collaboration tools. But the definition of Unified Communications goes beyond integrated communications to communications integrated with business processes.

Unified Communications is Business Transformational

When Unified Communications moves from being solely an end user productivity tool to allowing communications-enabled business processes and applications, it becomes truly business transformational.

For example, time-to-decision is critical, whether applied to new product introduction, crisis management, or customer service. Gartner estimates that 85% of business processes are impacted by human delays. Communications enabling an application such as supply chain management allows it to more quickly resolve supply chain issues, by setting up a collaborative session at the earliest possible time (e.g. based on presence, location, and calendar information) with all stakeholders (e.g. the project manager, any of three project engineers, someone from accounting) and delivering relevant information to these participants. Vertical applications, such as clinical Point of Care and hospitality facility management systems, can also be communications-enabled.

This broader view of Unified Communications addresses the needs of three key stakeholders in the enterprise environment:

1. The end user through role-based communications capabilities (e.g. delivering business-grade telephony and information access for the retail service worker, and rich collaboration any-

time, anywhere for the knowledge worker and mobile executive) with a high degree of personalization and reachability control.

2. The Line of Business (LOB) or Business Decision Maker (BDM) through Unified Communications-enabled contact centers for new levels of customer service, transforming the contact center into a more effective up-selling and cross-selling vehicle; and through communication-enabled business processes across the enterprise and to partners, to minimize human delays and accelerate time-to-service, time-to-product, time-to-resolution, and time-to-revenues.

3. IT through optimal use of capital and operational resources by delivering SLA-based Unified Communications services and capabilities to end users and LOBs on a common software platform, over an application-aware network that delivers robust and secure operation, and consistent Quality of Experience (QoE) for all users.

From Vision to Execution

Few would dispute the transformational nature of the software-centric approach to Unified Communications in delivering rich collaborative tools to employees anytime, anywhere, in transforming contact centers, and in minimizing human delays in business processes. The vision is clear — execution is paramount.

There are four real-world business realities that must be addressed if an enterprise is to accelerate the realization of this vision, while minimizing the business and technology risks of adopting these transformational solutions.

Firstly, business telephony is at the heart of real-time communications today and going forward. They are very reliable, feature-rich and deliver high quality. The enterprise must have the flexibility to pace its evolution to IP telephony (an important first step), to Unified

Communications and to communications-enabled business processes, in line with business priorities.

Secondly, the Unified Communications platform needs to be scalable and reliable, have operational characteristics that will minimize Total Cost of Ownership (TCO), and be part

**Time-to-decision is critical,
whether applied to new product
introduction, crisis management,
or customer service.**

of a large open ecosystem to offer optimal agility in communications-enabling business processes. The path to lowest TCO is a common software-centric platform for Unified Communications, integrated into enterprise directories and into data center environments.

Thirdly, the reliability, security, and QoE risks associated with rolling out Unified Communications over the enterprise IP network must be eliminated. This drives the need for intelligent application-aware wide area, campus, and data center networks.

Finally, in accelerating the realization of the business benefits of Unified Communications, enterprises may need to complement in-house skills and resources by turning to a trusted partner who can assist in such tasks as transitioning an existing telephony system to IP telephony, incorporating the latter into a Unified Communication system, setting up an SLA-driven management environment, and integrating Unified Communications into business processes.

IT Convergence Changes the Communications Landscape

The recently announced Innovative Communications Alliance (<http://www.innovativecommunicationsalliance.com>), is unique in that it brings together leading telecom and software suppliers in a first-of-its-kind relationship to accelerate the business-driven transformation of voice, video, data com-

munications into software-centric Unified Communications, while ensuring the highest quality of experience.

Through IT convergence, Unified Communications increases user productivity via people-centric communications; transforms multimedia contact centers to reach experts across the enterprise for more engaging customer service; and increases business effectiveness through communications-enabled business processes. It eliminates the barriers between private and public networks through secure seamless mobility; and extends real-time collaboration beyond the enterprise to federations of partners, suppliers, and customers. Superior and consistent quality of experience is delivered through highly resilient and reliable application-aware networking, while lower total cost of ownership is delivered through common software-based platforms integrated with the data center.

Creating a three- to five-year plan of user groups and business processes targeted for Unified Communications can help you make the right technology, architecture, and partnership decisions right now! **IT**

Tony Rybczynski is Nortel's Director of Strategic Enterprise Technologies and has over 30 years experience in application of packet network and convergence technologies. Greg Saint James is a Senior Director of Marketing at Microsoft ([quote](#) - [news](#) - [alert](#)) and manages the Innovation Communications Alliance.



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By Hunter Newby

Blaze Your Own Trail...

As we all head in to the autumn season, some things change and others remain the same. It all depends on where you look. Just as there are regions of the country and world that enjoy the colors of fall foliage and the feeling in the air of holidays to come, others must contend with looming snow storms, ice, and cold. Indeed, there are regions that experience little change, and for those who enjoy a more pleasant lifestyle, a year-round 80 degrees with little rain and plenty of sunshine, life is bliss. But with the good comes some consequence: a blissful constant climate engenders insulation, contentment, and a general inability or aversion to dealing with the harsh realities of other climates. For example, many Floridians I know refuse to visit New York from October through April because they can't handle the cold and simply don't own a winter coat. Likewise, in business, it is not wise to ignore reality, or expect your environment to never change. If and when it does, you may not be ready for it.

It is interesting to see the parallel between earth's nature and human nature. One has a profound impact on the other and it carries through to almost everything that we, as interacting people, do. The nature of some people dealing with VoIP ([define](#) - [news](#) - [alert](#)) Peering is very much like those that can handle change and those that cannot. There are many who embrace it, thrive in it, and actually drive it to where it is going. On the other end of the spectrum, there are many who choose to sit and wait, or just outright ignore it. In the middle, there are adopters trying not to be psychologically held back by the naysayers, but they are also fearful of both the guides ahead of them and whether they're being led down the right path, or a path leading to some entity's desired and optimal outcome and not their own.

As time passes and the market heats up, more so-called "expert" guides show up at the foot of this VoIP Peering Mountain and the risk of getting lost on the way to the top increases. It is as if anyone with a voice or IP network background can claim to have the experience to navigate you through the perils of the Himalayas and there happens to be a blizzard going on. Do you trust them, pay them as a guide and follow, or do you go it alone, or perhaps sit and wait for others to go ahead while you lose time? Before you answer that question, it is necessary to understand the different kinds of VoIP Peering, what their purpose is, and

how your network fits into the master plan. Picking the proper guide has everything to do with who you are, what you do, and where *you* want to end up.

First off, VoIP Peering is not a single thing or service type. It is not solely about "free" on-net calls. Anyone that tries to base the utility of VoIP Peering on the amount of reachable IP-enabled endpoints is too narrowly focused and is missing the significantly large value opportunities in TDM trunk-side replacement and other beneficial uses of the interconnection method. Attempting to dismiss the relevance of VoIP Peering by stating that only a handful of numbers (ENUM) are actually accessible is like saying you've been to New York and there wasn't much to do, but

in fact you were there merely for the purpose of transferring flights at JFK International Airport. There's a whole lot more to it!

Connecting without any added costs or (significant) delays is important because the end game is always about the best "way" to get to the "destination." The destination with VoIP Peering may be going from the same point A to B that your TDM minutes do today; for

instance from Carrier 1 to Carrier 2, but now rather than using TDM DS3s and circuit-switched minutes trunked between the carrier voice switches, IP is used to carry voice (as VoIP) over Ethernet trunks. This is simple, yet effective and the best part is that it has nothing necessarily to do with

First off, VoIP Peering is not a single thing, or service type. It is not solely about "free" on-net calls.

free calls. Replacing the trunking technology produces savings in both local loop consolidation and elimination and lower equipment costs.

Another beneficial facet of VoIP Peering that has nothing to do with endpoints is protocol conversion. It is fairly well known that SIP dominates the VoIP landscape today, but there still remains H.323 and even flavors of SIP that may need to be mediated. This would be analogous to a currency exchange service within international airports, but actually is much less complex. (There are far more currencies in the world than VoIP protocols.) Do you Yen for Euros, or want to SIP on it? Translations in these businesses are a necessary evil. Currency is not the actual flight itself just as the VoIP protocol is not the actual call, but they go hand-in-hand. Conversion, or protocol translation, is a type of VoIP Peering service that is very real and robust as a business model feature. Any report stating that VoIP Peering services will not have a significant impact on voice networks disregards this fact.

**Conversion, or protocol translation,
is a type of VoIP Peering service
that is very real and robust
as a business model feature.**

The important point here is to be informed and not be confused by the misinformed, or narrow-minded who like to try their hand at educating. Who knows what the various agendas out there are. Whether they are intentional, or just ignorant, it won't matter much if you are aware of the current events and implementations of VoIP Peering and the reasons why network operators employ them. Once you've reached that plateau of knowledge you will be educated enough to independently pick the right path for you over VoIP Peering Mountain and be less reliant on the "expert" guides just trying to sell you on a ride. IT

Hunter Newby is chief strategy officer for telx. ([news](#) - [alert](#)) For

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By Max Schroeder

The Shift to Managed and Hosted IPT Services

An interview with Allan Sulkin, Founder and President of the TEQConsult Group and a member of the Enterprise Communications Association (ECA) Board of Directors. Sulkin has more than 25 years of telecommunications industry experience and is recognized as the foremost market analyst for premises voice systems and applications.

Max: Network hosted services have been around for some time, dating back to Centrex. They then entered a prolonged slow period. Why the resurgence of interest in these services?

Sulkin: From a telephony perspective, one key reason is the complexity of managing an IP communications system. Initially, it will be more difficult than managing a traditional circuit switched telephony solution because it is more susceptible to LAN/WAN failures. Also, there is a scarcity of in-house technical expertise because this market segment is expanding rapidly, which makes third party service options very attractive. Other incentives include the following:

- Lowering their total cost of ownership while leveraging third party expertise.
- Increased security and reduction of business risk with a 24 x 7 monitored solution.
- Refocusing attention and resources on core competencies.

Max: How big is the managed services market?

Sulkin: End user spending on all types of managed services for telephony systems was estimated to be slightly greater than \$3.3 billion during 2005 and is likely to double with the next six years.

Max: How do you define network-provider hosted services?

Sulkin: Network hosted IPT is an IP-based management/maintenance service usually bundled with network transmission services.

- Call telephony servers and trunk gateways are housed in a service provider's operations center.
- Core system is scaleable, shareable across many users.

Network Hosted IPT delivers PBX-like functionality as a service, available over the Public Service Telephone Network (PSTN) and/or the Internet.

- Fundamental functions of a hosted service are similar to those of hardware systems installed at the user's premises.
- Primary difference is that hosted IPT customers don't buy, install, or maintain any PBX equipment.
- Early targets have been SME customers with KTS/Hybrids or Centrex services.

Another new alternative is a CPE provider hosting offering such as Avaya's Avaya on Demand (AOD) that is distinguished by two key differentiators:

- Avaya provides all customer premise equipment (e.g., telephones, media gateways).

- The offering is not bundled with network transmission services.

A third, new alternative is an integrated telephony system/managed services solution such as the NEC Managed IP Telephony (MIPT) solution which consists of CPE equipment managed by the vendor.

Max: What is the target market or "sweet spot" for Hosted Services?

Sulkin: The demonstrated sweet spot for network hosted services has been small business customers (i.e., fewer than 100 employees). However, medium and large customers are now being targeted by products like Avaya on Demand.

Max: How then do you define managed services?

Sulkin: A true Managed Services Provider (MSP) is capable of assuming responsibility for either one task (e.g., maintenance services) or the entire system operation (i.e., planning, design, installation, operations, administration, and maintenance). Managed Services can be provided for the core telephony system and/or any communications application.

Max: What is the target market or "sweet spot" for MSP Services?

Sulkin: To date, the MSP sweet spot has been large enterprises with relatively complex communications requirements.

Max: What is the opportunity for a VAR in this market?

Sulkin: The biggest opportunity for VARs is to offer a selection of managed service offerings to supplement traditional system solution sales.

If you would like to obtain additional information on this subject, please note that Allan Sulkin is the author of the *2006 ECA Converged Communications Systems Market Report* (<http://www.encomm.org/eca-market-intelligence.htm>). The *2006 ECA Converged Communications Systems Market Report* is the industry's most definitive and independent report on the converged communications market and covers the Managed Services market in much greater depth. IT

Max Schroeder is the SVP of FaxCore Inc. ([news - alert](http://www.faxcore.com)) (<http://www.faxcore.com>) and a member of the ECA Board of Directors. As chair of the ECA Media Communications Committee, he is also the liaison for TMC.

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By Rich Tehrani & Max Schroeder

Continuity Planning 101

The Interop Factor

In his book *Disaster Survival Guide for Business Communications Networks*, Richard “Zippy” Grigonis, the Executive Editor of TMC’s IP Communications Group, devoted an entire chapter to data management and storage technology. The chapter opens with, “The quandary of Data Management is that business (or just about any organization for that matter) needs instant and constant access to data. . . .” Based on Zippy’s admonition, we decided to allocate some time to data access, security and backup techniques in this month’s column and visited Interop New York 2006 to see what’s new in the data world.

Interop began back in the 1980s with a technical lab format to allow engineers to test and perfect their data WAN solutions. Novell became the dominant LAN player by the early 1990s and had its own event, Networkworld, which was more products-focused. The two shows combined in the early 1990s. A number of years have passed, but the event is still anchored by interoperability labs and data-centric exhibitors.

To backup data you need both primary and backup servers. WideBand Corporation (<http://www.wband.com>) showed how their Gold Server line of products provides for both primary and mirrored units in a 100% redundant, mirrored network storage unit — two servers in one bundle. Extending the continuity solution even further, WideBand offers off-site data backup, remote network monitoring, server failure detection, and other critical disaster planning services.

WideBand ([news - alert](#)) also partnered with another Interop exhibitor, Secure Key LLC ([news - alert](#)) (<http://www.s-key-co.com>) to provide a multi-factor authentication system integrating Secure Key’s new S-Key USP device. S-Key utilizes a method of Secret Key distribution and randomly-generated Session Keys to provide for secure transactions over LANs and the Internet without ever sending the user’s ID or password information over the net. For example, when a remote web server requests verification of a user by a match of a fingerprint, the person’s fingerprint is compared to the print already stored inside of the key. The remote server is informed that the print is a match, but does not actually receive a copy of the fingerprint data. This eliminates one of the major objections to having fingerprint and other personal data used for ID verification.

Note, if this is an area of interest, you may also want to visit our July DPCF column (<http://www.tmcnet.com/379.1>) where we covered the KoolSpan ([news - alert](#)) (<http://www.koolspan.com>) line of products with a Smart Card-to-Smart Card architecture that allows for the pre-provisioning of secure primary and secondary network communications.

Another new security introduction at Interop was OneSign Physical/Logical by Inprivata ([news - alert](#)) (<http://www.imprivata.com>). This product enhancement enables location-based authentication by linking an employee’s physical access authentication to network and application access. OneSign Physical/Logical will ship as an appliance pair with built-in failover and should be available by October 2006.

([news - alert](#)) Citrix (<http://www.citrix.com>) introduced their WANScaler 8000 Series which boosts acceleration of application delivery to branch offices or, in a hosted services deployment, customer offices. The series uses a new breakthrough dynamic multi-level compression technology with extended disk-based history. Application response times can be improved by 5x, 30x, or more at peak compression efficiency. So, you ask, how does this protect your company? A simple technique to ensure business continuity is to have a mobile or distributed workforce and the key to success with a distributed workforce is to make the working experience as pleasant and efficient as possible. In a corporate environment, the WANScaler 8500 is a 1U appliance with fault-tolerant RAID disks, making it ideal for deployment into medium and large branch offices. The WANScaler 8800 is a 2U appliance designed for datacenters delivering applications throughout the enterprise; it also fits well in a data vault deployment. The WAN Scaler 8000 series also supports the company’s WANScaler Client to support all remote users, including those situated in micro branches, home offices, and on-the-road. For additional information on Citrix’ disaster planning solutions please visit: <http://www.tmcnet.com/380.1>. IT

A reminder to visit <http://www.tmcnet.com/channels/disaster%2Dpreparedness/> to view additional information provided by DPCF members, TMC and the ECA.

Max Schroeder is a board member of the ECA, media relations committee chairman, and liaison to TMC. He is also the Sr. Vice President of FaxCore, Inc. ([news - alert](#))

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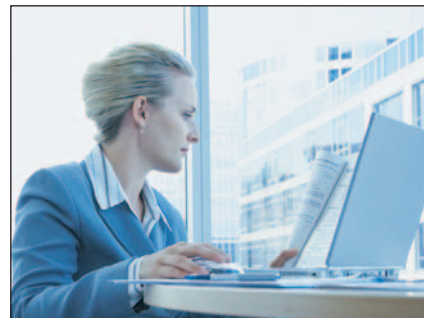
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Nortel and Microsoft Innovative Communications Position Paper <i>Nortel</i>	Value Proposition of VoIP Phone Service for SMBs <i>Packet 8</i>
Moving from IVR to Voice Self-Service: Seven Key Strategies <i>Genesys</i>	Aberdeen Study Finds Effective IT Outsourcing Requires Oversight <i>Interactive Intelligence</i>
A New Model for Integrated Customer Contact: By Datamonitor sponsored by Amcat <i>Amcat</i>	Remote Management: Critical to a New Generation of Digital Service Providers <i>Texas Instruments</i>
Building Next Generation Network Services - The Data Management Infrastructure <i>Solid Information Technology</i>	Next-Generation Residential Gateways: Flexibility and High-Performance will be Critical <i>Texas Instruments</i>
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By John Cimko

Communications Lifelines for Disaster Victims

Jeff Pulver and Tom Evslin — two Internet trailblazers — have come up with an interesting idea. The FCC should take a close look.

The federal government, they say, should require carriers to make sure that temporary alternative means of communication are set up quickly for people in areas hit by hurricanes or other disasters.

The problems caused when communications systems break down were starkly illustrated last year by Hurricane Katrina. In Katrina's aftermath, the FCC has focused on finding better ways to provide disaster victims with alternate means of communications while the existing communications infrastructure is repaired.

Katrina was a wake-up call. Our landline and cellular systems are not robust enough to withstand the fury of a hurricane like Katrina and the massive flooding that follow in its wake. According to Ken Moran, the Director of the Office of Homeland Security at the FCC, Katrina knocked out more than three million phone lines in Louisiana, Mississippi, and Alabama. In testimony before a Senate committee a month after the hurricane, Moran said the wireline and wireless telecom networks had sustained enormous damage. Millions of telephone calls simply could not get through.

Even though telephone company workers labored mightily to restore service — and the FCC took extraordinary measures to clear away regulatory obstacles so that restoration work could proceed — hundreds of thousands of people were without service for extended periods.

The staggering impact of Katrina prompted the FCC in January to set up an "Independent Panel Reviewing the Impact of Hurricane Katrina on Communications" to aid the agency in figuring out what regulatory steps should be taken to ensure that people affected by hurricanes or other disasters have access to communications facilities.

This is where Messrs. Pulver and Evslin come in. In March, they filed a petition for rulemaking with the FCC, making a proposal to "mitigate the effects of long-term telephone outages in the event of natural disasters or other public crises."

The petition argues that the FCC should require carriers obligated to provide E911 service to set up alternative communications service for customers affected by disaster-related outages. Carriers would be given a choice. They could activate a voicemail service that could be accessed by incoming callers dialing the customer's phone number. This would enable customers who don't have any outgoing phone service to receive incoming calls or record an outgoing voicemail message providing information about their status and location. Or, the carriers could provide expedited local number portability to customers whose service has been knocked out. This would enable customers to quickly port their phone numbers to alternative providers (including IP-based providers and providers outside the affected area) and thereby reestablish communications links with their families and friends.

Pulver and Evslin propose that the FCC should enforce the new rules by requiring carriers to certify their readiness to implement the alternative measures for temporary communi-

cations service. If a carrier can't do this, then it should be treated in a manner similar to VoIP carriers that do not provide E911 access — that is, the carrier should be barred from marketing to new subscribers in areas where it can't provide the required emergency service.

The FCC has sought comment on the Pulver-Evslin proposal and, in a separate action, has launched a rulemaking based on recommendations made by the Hurricane Katrina Independent Panel. This latter rulemaking seeks comment on rules for pre-positioning communications carriers and government agencies to better deal with disasters, for improving recovery coordination efforts, for improving the operability and interoperability of public safety communications to cope with disasters, and for improving the communication of emergency information to the public.

The communications industry has reacted negatively to the Pulver-Evslin proposal, arguing that it doesn't make sense to impose additional requirements on carriers in the wake of a hurricane or other disaster. These requirements, they contend, would deflect network and human resources away from restoring full communications service. Carriers also say that it would be expensive to establish emergency voicemail for all customers nationwide, and that the proposed requirement for expedited porting alternatives has some downsides, including overloaded trunks, misdirected call routing, and potential billing disputes.

These criticisms don't seem to offset two points supporting the Pulver-Evslin proposal. First, the proposed requirements are intrinsically sensible. Setting up an alternative voicemail system, or enabling customers to port their numbers to temporarily restore service, would help address one of the major problems exposed by the Katrina disaster. When disasters strike and people's communications links are cut off, these links to family, friends, and sources of aid and assistance must be restored as rapidly as possible. While it's true that efforts to restore permanent communications facilities should not be diverted or slowed down, there still should be an emphasis on taking measures that will provide disaster victims with immediate temporary communications arrangements.

Second, the Pulver-Evslin proposal recognizes that there is a role for government to play. The FCC should be proactive in working with the communications industry to set up plans and mechanisms to promote and accommodate temporary "fixes" to meet disaster victims' communications needs. The Pulver-Evslin proposal provides the FCC with an opportunity to accomplish these goals. IT

John Cimko served for 15 years at the FCC, and currently practices law at [Greenberg Traurig LLP](http://www.gtlaw.com) ([news - alert](http://www.gtlaw.com)) an international, full-service law firm with more than 1,200 attorneys and governmental professionals. The views expressed in this article are solely those of the author and should not be attributed to his firm or its clients. For additional information, visit the firm's website at <http://www.gtlaw.com>.



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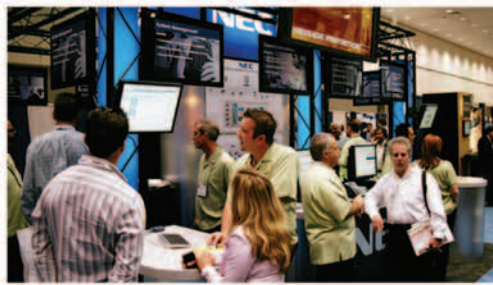
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By Mike Katz

Mobile Video Applications are “Ready to Rock”

Many editorial pundits have opined that the value of watching TV on your mobile phone’s “tiny screen” is, at best, tedious and, at worst, impossible. However, a large number of industry analysts (Ovum, Informia, Datamonitor, Yankee Group), several major equipment vendors (Alcatel, Ericsson, IBM) and operators (Docomo, SKT Telecom, Telecom Italia, 3, Verizon, Cingular) all state that we are just on the cusp of a dynamic new era in which we can catch the latest newscast, watch last night’s episode of *Desperate Housewives*, or be entertained by a first-run movie, all on our mobiles.

This is indicated in the Mobile TV Revenue Forecast chart from Datamonitor (see next page). If true, then we must ask: Is the mobile video application experience just about the “lean back,” non-participatory event of watching, or can it be both a “lean back” and “lean forward,” interactive, participatory experience? My position is that it *has to be both!* Yes, the tiny screen audience represents a very big interactive opportunity for monetizing content. As always, content is king, and in mobile video, interactivity is the key to monetizing that content. Further, mobile video business models that rely solely on content delivery without supplementary revenues from sources such as advertising will have a hard time staying viable.

So if mobile video interactivity is important, what applications are leading the charge when it comes to market forecast and relevance?

According to information from market forecasters, such as Ovum, Datamonitor, ABI, and Informia, the number one mobile video application is Video on Demand (VoD), or more simply, video clip download or streaming. Video on Demand usually has a limited user interface and is subscription-based. The technology types behind it include fast 3G networks, either IP or circuit-switched (3G-324M), and emerging Digital Video Broadband — Handheld (DVB-H). Examples in the United States include Verizon VCast and direct-to-mobile download from sites such as Comedy Central.

The second application is pure Mobile TV. Mobile TV is normally live-streamed to the handset via either an IP connection or over 3G-324M. In the distant future, DVB-H handsets will accept streams from network broadcasts to enable a very “TV-like” experience.

The third most forecast application is See What I See. This application is eminently useful for all of us that are fashion-

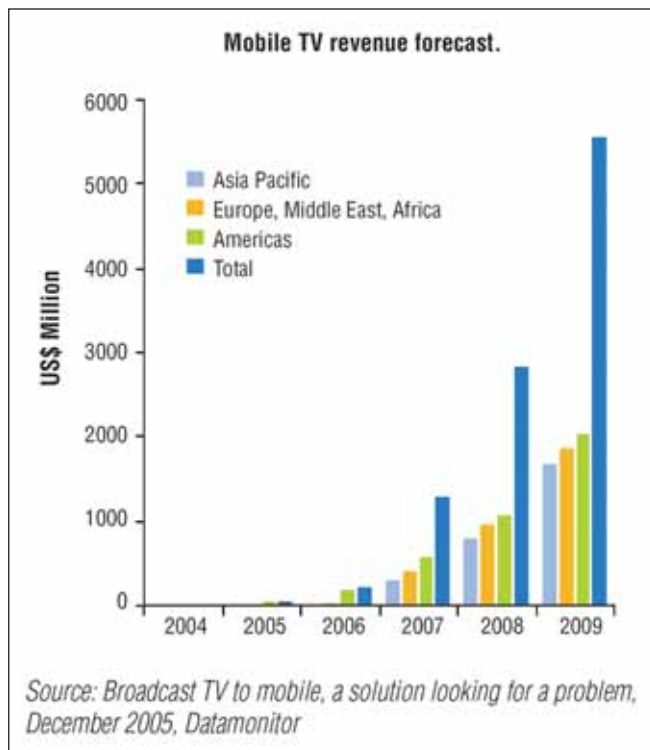
challenged. I, for example, often need help in picking the style of a suit or tie (as my wife is quick to point out), but I don’t always have a fashion consultant on hand when shopping. With See What I See, I can make a mobile video call to my fashion consultant (read: my wife) on her PC or desktop phone and show her what I’m looking at in real time. She can comment and help set me straight regarding that great polka dotted bow tie I wanted to buy.

The fourth application on this list is emerging rapidly as the most viral in all of mobile video — Mobile Video Sharing and/or Vlogging. Here, mobile video subscribers can take part in a community of users that share common interests. A good example of the effect of viral video is the rock group “OkGo.” In early 2005, they were unknowns that had just inked a record contract. Being young and very mobile- and Internet-aware, OkGo knew about sites like YouTube.com and MySpace.com. Seeing the opportunity, OkGo created a low-budget backyard video of the band dancing to one of its new songs. Its record company told them not to post it. Of course, they posted it immediately on YouTube.com and linked it to a MySpace.com fan page.

It became an instant hit. No one expected what happened next. Fans from around the world began posting their version of the “OkGo” dance, and today there are nearly 200 versions on YouTube as well as a contest for the best version. Mobile Video enables viral video. . .

The fifth application is IVVR (Interactive Voice and Video Response). An example of an IVVR application is Universal Music Mobile’s “Label Studio TV” deployed by SFR and O2 in the UK. Most of us are familiar with traditional IVR and its ability to help monetize audio content. What is happening today is the monetization of mobile video content and the up-selling and cross-selling of that content to end

The number one mobile video application is Video on Demand (VoD), or more simply, video clip download or streaming.



users. This application uses circuit-switched mobile video (3G-324M) to help monetize Universal Music Mobile's global catalog of music videos, albums, wallpapers, ticket sales, etc. Users make a short code video call to the service and are immediately connected to an interactive video portal experience.

There are many other applications that you would expect to be mentioned on this list, such as mobile video conferencing, videomail, video chat, conversational video, video call centers, etc. According to research, these applications ranked lower, not necessarily because they have less value to consumers but because they are not forecast to be as large in terms of operator revenues.

So is the future of mobile video a "lean back" or a "lean forward" experience? I say it's both. IT

Mike Katz is director of product marketing for NMS Communications. ([news - alert](#)) For more information, please visit the company online at <http://www.nmscommunications.com>.

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By Kelly Anderson

Customer Management

Boy, have things changed for us veterans. Cable companies have telephone customers; ILECs are serving television consumers; and mobile carriers are catering to teenagers with online gaming. Many of us (my household included) have so many services from one provider that we get bills in full length envelopes with additional postage. We have so many discount programs, promotional offers, and FCC reminders that the once simple bill has become nighttime reading material.

Honestly, I have been in telecom for over 13 years in the billing and OSS space and, embarrassingly enough, I couldn't explain my friend's bill to her upon request. Is this really the personalization we strive for? Are our newly acquired capabilities around data collection, customer relationship management, and bundled billing seeing the payoffs promised?

Understanding your customers and the types of things they want to see is all about understanding and interpreting data that will be portrayed to them in a meaningful way. With so many of the new IP services being provided by the same provider, the opportunities to communicate to their customers are not just part of the invoice messaging anymore that has been typically linked solely to the ordering and billing system. The most useful information is data that tells you how your customers use your services. Could you imagine what would happen in the "Amazon" model of customer information management if they knew their users' behavior? Personally, I have ordered nine books from Amazon in the past two months and most of them were for my son's college classes. Consequently, every time I log onto Amazon, I get bombarded with ads for new philosophy books. I am wondering how long it takes to shake off that image. . . maybe I'll order a book on Metals Used by Medieval Knights just to throw them a curve ball.

Customer usage data is the most important aspect of creating a comprehensive strategy to reach your customers. For far too long, service providers have relied on ordering data or pure billing data to determine marketing messages to their customers (i.e., what messages to put on a bill, etc.) In today's 'flat rate' billing world, it's no longer acceptable to use this data in marketing to customers. There is a goldmine of 'hidden' data in your network that few have the sophistication or knowledge to use extensively.

Integrating your back office systems, such as ordering and billing functions, with service cost data and your network information is no small task, and neither is keeping your customers in the face of multi-tiered competition. However, finding data in your network need not be as complex as it seems. The data is usually available and quite easy to record and track, as the requirements for data are known. A crucial piece in defining the data required involves understanding the crucial points of service used by customers. In an [IPTV \(define - news - alert\)](#) service, anticipate that your customers will use both broadcast and recorded viewing, purchase and watch movies, use the guide function, and possibly keep the television on when they are not watching programming. When we build specifications in our working groups, use cases always

begin and end with a consumer's behavior and experience. They should be the building blocks from which all things are driven, whether it be ordering processes or how services should be introduced.

Many times over the past 10 years, competition has been based on price. I told a story a couple of months ago about my long distance company offering me a plan for \$24.99 for unlimited calling. That plan got my attention and I sang the merits of my provider until last month, when I had to call my local provider for a customer service issue. I discovered that if I switched my service to them and bundled my wireless, I could get it for \$10.00. Needless to say, I now have a new provider for my long distance calling. Price doesn't buy loyalty, but good service and good products do. Alternatively, I've had several offers from other providers for my wireless service, but the Blackberry benefits I get from my provider are enough to keep me from even entertaining the thought; in fact, I never even think about switching. If my provider could trend and predict future behavior so as to give me better service or faster downloads on my Blackberry, I would probably buy it without thinking too much about it. I often work remotely, and ways of more seamlessly making me appear as if I'm in the office are very important to me.

Understanding your customers' "buy buttons" is important to them as well. Customer usage is a mandatory component to serving your customers, whether that usage is billed for or not. I hear so many times from very competent and knowledgeable architects in the industry that crucial usage data is either not recorded or 'thrown away' when billing is not needed. There are few service provider architects and managers who understand the wealth of the data they have right at their fingertips, or how to obtain it. I believe we all have to wear a marketing hat in today's world and fundamentally decide what it will take to obtain and retain profitable, high-valued customers. Using information obtained for usage data is needed for the boardroom to make positioning strategies, content decisions, and product offers.

When the back office, network, and front managers work together to define and implement a data strategy that serves the company overall, success stories will be plentiful. In the market in which we all work today, short-sidedness will not cut it. As I stated earlier, consumers need products and services that are valuable to them in order to give loyalty. I believe that loyalty will be the holy grail indicator of health in the communications industry in the coming years. IT

Kelly Anderson is President and COO of IPDR.org, a collaborative industry consortium focused on developing and driving the adoption of next-gen IP service usage exchange standards worldwide.

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CounterPath's Donovan Jones

Rich Tehrani's Executive Suite is a monthly feature in which leading executives in the VoIP ([define](#) - [news](#) - [alert](#)) and IP Communications industry discuss their company's latest developments with TMC president Rich Tehrani, as well as providing analysis on industry news and trends.

The entire communications industry is experiencing colossal change as both businesses and consumers continue to adopt IP as their primary means of communication. Much of this change is being driven by SIP-based converged communications. In fact, at ITEXPO in San Diego last month, hardly a moment passed when the terms "convergence" or "mobility" went unheard. Indeed, they were the subjects of many a keynote and conference session.

As a developer of SIP-based softphones for the service provider community, CounterPath ([news](#) - [alert](#)) is among the many companies that has enjoyed recent growth, driven by the changes and developments in the communications industry. The Vancouver-based firm is also keenly aware that change is certain to continue and that developers and service providers alike must remain focused on what ultimately matters — the end user experience.

I recently had a chance to speak with Donovan Jones, who heads up the sales, marketing, development, and operations activities at CounterPath.

RT: Your company has gone through a period of growth. To what do you credit that progress?

DJ: We've had five quarters of consecutive 20% growth, so we are pretty excited, and I think there are four real factors driving that growth. There's the strength of our engineering team; we really have some of the most capable guys in the industry, and when you have a core set of people like we do, they can really punch above their weight. We're able to do a lot of things that we wouldn't necessarily do with other teams.

We also have a high quality product, which has been in the market since 2003 — the founders focused on SIP very early. Many people face challenges six months to a year after launching a product, because it gets laden down with bugs, but through

a lot of comprehensive testing, we have beaten the bugs out of our product pretty well. Our product also has been downloaded more than two million times, so it's got a following, a recognized brand. When you look at SIP, it allows you to interoperate with the large infrastructure providers, like Alcatel, Siemens, Lucent, Nortel, Cisco.

Change in the market has also been a factor. Everybody talked about IP taking off from a telco perspective and from the consumer perspective a few years ago — we're seeing it now and we are positioned very well to take advantage of the growth. There are all kinds of statistics, but a 50% year over year increase in broadband households in the U.S. shows how adoption is being driven from the consumer level.

The fourth factor is probably our strategy. Five quarters ago, we said we

were going to focus on service providers, cable companies, OEMs, and large ITSPs, and we were going to build around our core engineering team and our core products. We were going to build capabilities to deliver to those segments, with our customer engineering team, our sales team, and our support team all serving them — and we've had pretty good success.

RT: You've recently had some major customer wins. Can you talk about them briefly?

DJ: Tying into our strategy of focusing on large service providers, cable companies, and OEMs, I'll mention three. British Telecom is one of the world's most recognized brands and certainly one of the leading brands in Europe; we launched product with them in late June. They've got a softphone, called BT Softphone, and it's our technology powering it. This is the start of something really significant with BT, which is in the middle of a complete network and architecture refresh, a project called 21CN.

At the end of July, coinciding with our 10k filing, we disclosed Cisco as a customer. Our software development kit is being used in a number of their offerings, including the Uni-Pipe Communicator product. We are very excited about that relationship. Then, in September, we helped AT&T bring its softphone, part of the Call Vantage service line, to market, adding another globally recognized brand.

These new relationships are truly a testament to our engineering team, which was able to give each of these companies a carrier-grade product that really fits with what they're looking to do in the market.

RT: How does your relationship with Intrado benefit your customers and fit into your business plan?

DJ: Intrado is really pioneering E-911 solutions, and is at the heart of recent FCC requirements for carriers. Given our strategic focus on helping these large carriers get the right kind of SIP-based products and solutions in the hands of their customers, it's a natural fit. It allows our customers to get a solution out quickly — and the Intrado solution works.

In terms of our business model, we see ourselves focused on delivering carrier-grade SIP applications to carriers. These need to go through substantial interoperability testing, and they need to meet all of the high-level feature requirements as well as basic core requirements, like 911. When you think about what the technology does, it enables our softphone to integrate directly with Intrado's systems to automatically know when a 911 call is made.

RT: How has the growing demand for mobility and wireless IP services affected Counterpath?

DJ: This is driving a lot of the interest in this space and a lot of what you hear around fixed/mobile convergence, a lot of what is being touted by the new IMS providers. We've had a product, the Pocket PC, in the market for some time. We're really focusing on tightening up our desktop offer around Windows, Mac, and Linux. We're focused on the next step, which is an embedded solution.

Windows Mobile 5 is certainly at the forefront there. We've got several partnerships with FMC-focused companies on delivering kind of a converged user experience across an application running on the desktop and an application running on a mobile device. So if you think about Windows Mobile 5 and then Windows XP and you blend the experience, so that wherever you are, you get to have all of your contacts, you get to have all of the way you've set up your experience independent of devices. We're very much focused on pushing our application onto mobile devices.

RT: IPTV is at the forefront of many service providers minds. How does that fit into your product set?

DJ: This is actually an interesting question. We actually recently demoed an IPTV solution running in our application.

We see IPTV as a natural extension of the real power of a SIP-based application streaming content to a panel or a flat screen or a monitor running off of a very high powered server. So this, for us, is certainly an interesting opportunity.

From the market perspective, I think we are not quite there. I think that the kind of server that you'd need in your house in order to really deliver the high-quality content isn't quite there. That set-top box is a little further ahead, but, in terms of IPTV, it's absolutely on the roadmap. Our carrier customers are looking at ways of working with their customers set to stave off, if you will, the cable companies who are coming at them from the voice services side. They want to come at them from the streaming content side, and that is very interesting for us and you will see more in the coming months and quarters.

RT: What can we expect from Counterpath in the coming months?

DJ: You're going to see continued execution of our plan. We've, for five quarters, been locked on this plan, which is to build solutions and support capabilities around our core product and focus them on large carriers and OEMs. This is going to continue to roll out. On the product side, you're going to see Frontier, which is a code name for a new version of our user interface. That will be very interesting.

Frontier has a contact-based look and feel. I-Beam, the product that's out there now is a dial-pad centric user interface. We think that it will create a lot more flexibility, in terms of creating different integration with, say, CRM packages or streaming content like IPTV through the user interface. We don't have the same challenges that we had with I-Beam, where the dial-pad is kind of static and everything happens on the wings. This you can collapse, you can expand, you can create, you can take it down to just a toolbar, you can actually, from the user side, use the software however you like. We are pretty excited about that.

RT: How do you envision the IP communications world evolving in the next five years?

DJ: I think it's going to be more about the consumer, the end user. Traditionally,

you've seen this IP space evolve such that the providers have tried to replicate a TDM or legacy experience using VoIP. They've, in fact, taken what I think is a far superior technology and dumbed it down, almost making it appear cheaper, completely changing the value proposition. What I actually think they are missing is it actually is about the experience. When you create the richness of an application and then you start to use it, it becomes very interesting for how things are going to evolve.

The other thing that's important here is once users become more receptive to applications, it will open up the way people communicate. You'll get to select exactly how you prefer to communicate. You'll be able to use whatever presence-enabled device you like, then you can do what people are talking about, which is to go from your LAN at home to an EV-DO network while you're in transit to your high-speed LAN at work.

You'll be able to use applications to do file transfer, file sharing, you'll be able to integrate with your CRM package like our product does now where you'll be able to make calls from within the CRM package as well as integrate it with what you're doing. You'll be able to do multiple IMs, multiple chats, video conferences at the same time, put them up on a plasma screen, have presentations. It's really going to be about the flexibility that's afforded by the technology and then by what the user really wants.

I think the users are going to have more and more control in determining how an infrastructure company, like Cisco, builds. From the service provider perspective, there's going to be a real initial influx of different kinds of service, all going after the same set of users. It's going to be quite interesting.

Initially it will be a proliferation and then we probably will start to see some consolidation, but it will be centered around what people want. The companies that are going to be successful are really going to need to understand the needs of consumers and the needs of businesses and really deliver tight value proposition around those needs, because the access to information and the access to choice is really going to be more and more in the hands of consumers. IT

How's Your IPT IQ?

By Richard Zimmermann

IT departments are facing a barrage of information in the marketplace about the benefits of deploying IP telephony. There seems to be a groundswell of advice in technical and commercial magazines trumpeting the benefits of IP telephony, and it's easy to feel that you are getting left behind if you haven't yet deployed IP telephony in your environment. But is there sufficient substance behind the hype to justify a serious look at IP telephony (also known as IPT)? What are the business and economic drivers for deploying IPT? And what factors need to be considered during the implementation process to ensure a successful deployment?

Test your IP Telephony Intelligence Quotient (IPT IQ) by reviewing the following statements about IP telephony and comparing your answers. Then read the explanation below each question to see how well you understand the subtleties involved in a successful IP telephony deployment.

1. The primary economic driver for deploying IP telephony is reduction in long distance charges. True or False?

While it is true that toll avoidance was a key factor in driving the deployment of IP telephony systems a number of years ago, the economics around toll charges have changed significantly. IP telephony systems still allow companies to reduce long distance charges by carrying voice traffic over their corporate data networks. However, long distance carriers have responded by drastically reducing corporate toll charges in an

effort to maintain revenue and avoid stranded capacity on their installed networks. Consequently, the potential savings in this area have been reduced, but not eliminated. For instance, in a recent business case justification, a major medical equipment manufacturer identified a total of \$5.9 million in cost savings attributable to the deployment of an IP telephony system over the five-year planning period, but only about 13% of these savings were due to toll avoidance.

2. Telephony manufacturers are not developing any new features on traditional TDM PBX systems. True or False?

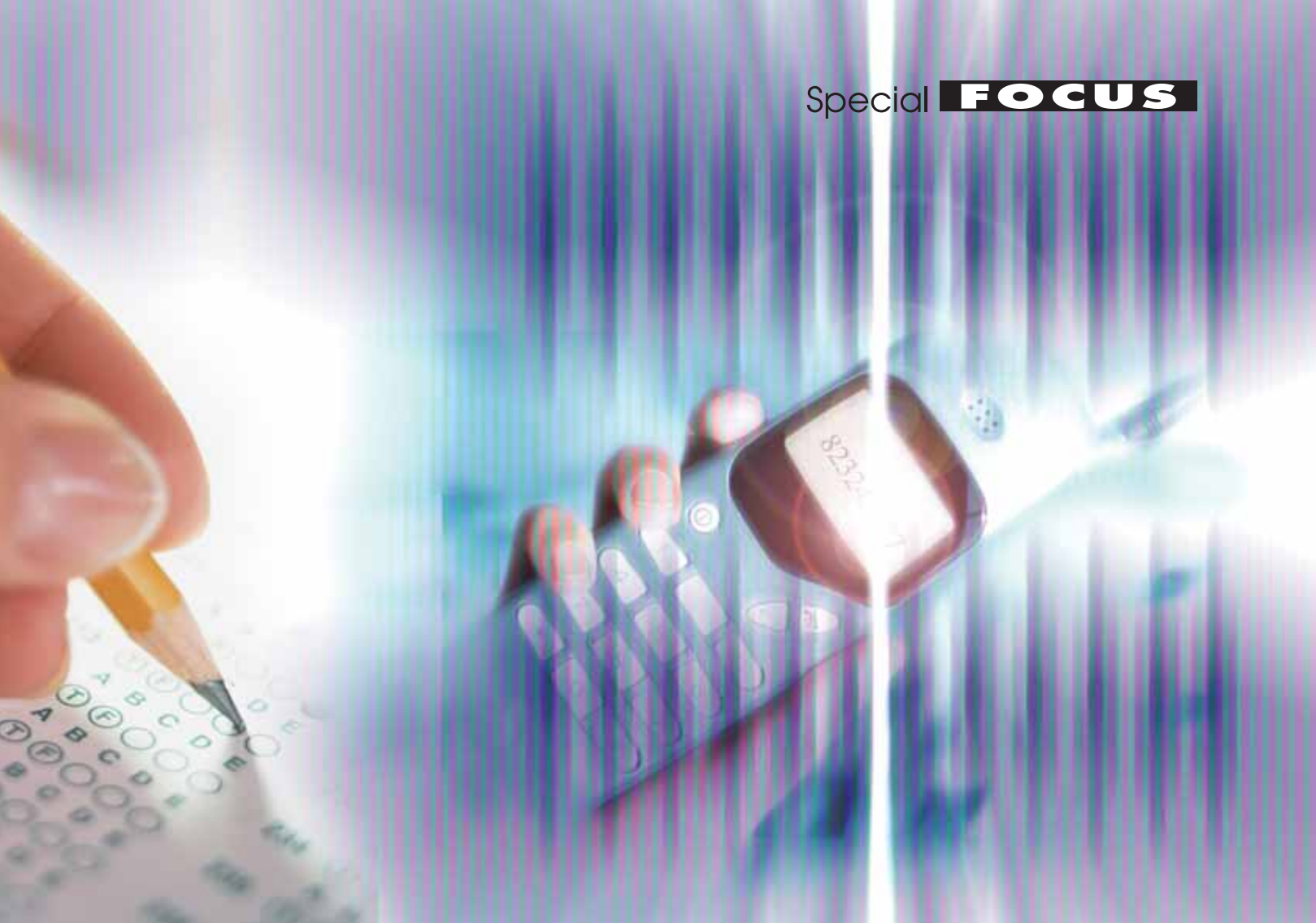
Most industry analysts agree that 2005 was the year that, for the first time, the value of IPT equipment shipped was greater than the value of traditional legacy phone, also known as TDM (Time-Division Multiplexing)

PBX (Private Branch Exchange) equipment shipped. This trend is expected to accelerate in future years so that by 2009, 98% of all telephony equipment shipped will be IP telephony equipment. Not surprisingly, manufacturers' research and development dollars are being invested in IP telephony equipment, while feature development on analog PBXs ([define](#) - [news](#) - [alert](#)) has been frozen. In addition, a host of third-party application developers have sprung up in the past few years and are bringing innovative, vertical-specific features to market that operate across IPT platforms. These features are helping companies realize additional business efficiencies through the use of their IPT systems.

3. IP telephony is just another application on the network. True or False?

The primary rationale for deployment of IP telephony is still true—it is more efficient to run voice and data over a





single, integrated network than it is to maintain two separate networks. However, due to its time-sensitive nature, adding voice traffic to an existing data network brings complexities that traditional data applications do not. Consequently, additional care must be exercised in planning and deploying IPT networks. A thorough assessment of the underlying data network must be undertaken to determine its ability to handle the additional voice traffic. This network assessment is a standard component of an effective deployment methodology. *In fact, it is commonplace for experienced, high-level service providers to decline to participate in IPT engagements with customers that will not agree to an assessment of their underlying network before deploying IPT.* Repeated experience has indicated that a thorough validation of the underlying data network is essential to a successful IPT deployment. Too often, a service provider is called in to troubleshoot an IPT network after the fact, only to find

out that the customer neglected to do an assessment of their data network prior to deploying IP telephony. Typically, problems with the performance of IPT systems are not technical issues, but design issues. IPT networks that are designed with the appropriate Quality of Service (QoS) parameters on a properly provisioned data infrastructure generally provide the satisfactory end user experience and financial return expected by customers.

4. Realizing the promised financial benefits of IPT implementations requires a heavy reliance on soft costs. True or False?

In conservative ROI analyses, the economic benefit is derived solely from hard, identifiable cost savings. These cost savings generally come from reduced depreciation expense, lower maintenance costs, lower cost of Moves, Adds and Changes (MACs), and toll avoidance, all of which can be quanti-

fied and validated. However, this is not to say that soft costs or anticipated increases in business efficiencies should be ignored. In many cases, the enhanced capabilities enabled by IPT provide companies with opportunities to drive significant reductions in cost or increases in efficiency. For instance, studies (e.g., Sage Research, 2005) have shown that unified messaging systems, where users can access voicemail, email, and fax messages through a single, unified mailbox, save business users an average of 45 minutes per business day. Similarly, integrated conferencing systems, which combine audio, video and Web conferencing into an integrated email interface, have enabled customers to significantly reduce travel expenses by providing an "almost like being there" conferencing experience. Take the example of a mid-sized national company that has used this system internally for its quarterly sales reviews for the past two years. Instead of flying sales teams from several dozen locations into headquarters

four times a year, three of the meetings are conducted via an integrated conference, and sales teams travel to headquarters once a year.

5. IP telephony deployments impact all areas of a customer's IT environment. True or False?

Many customers underestimate the impact of the loading voice traffic onto their data network. Perhaps the most obvious consideration involves security. It is possible for Denial of Service (DoS) attacks to be launched against the signaling protocol used with IPT, resulting in forced disconnects or false busy signals. Users also need to be alert to toll fraud, identity and information theft, and service disruption. The components of IPT systems, such as call managers, IP telephony switches, routers, and gateways need to be protected from viruses, worms, DoS attacks, and unauthorized access. Another less obvious impact of IP telephony is on the enterprise's storage requirements. With unified messaging, voice, fax, and email messages are contained in a single store. Based on the size of the enterprise, this dynamic can have a significant impact on the company's storage requirements. A comprehensive IPT implementation plan must take into account and properly plan for storage requirements. Finally, the customer's server environment must also be taken into consideration. Although the implementation of an IP telephony system impacts all facets of a customer's IT environment, careful planning of the implementation will properly take all of these factors into consideration to deliver the full business benefits of the technology.

6. Maintenance of IPT systems is easier and less expensive than that of traditional PBX systems. True or False?

It is true that IPT networks typically offer significant maintenance savings for multi-site customers by consolidat-

ing distributed applications like contact centers and Interactive Voice Response (IVR) into a single, centralized component. It is also true that IPT networks offer significant savings by reducing charges for Moves, Adds, and Changes (MACs), since much of this work does not need to be performed by specialized technicians. For instance, relocations of telephone stations no longer require a visit to the wiring closet, since any phone can be plugged into the network at any location, and it will register itself with the network to accept calls at the new location. However, the effort and skill required for ongoing maintenance and administration of the system should not be underestimated. The legacy staff responsible for maintaining a TDM PBX may not necessarily be qualified to support an IPT system. Most corporations are wrestling with issues associated with the inevitable merging of their voice and data departments. Many have successfully educated their staffs to be able to administer and maintain their new IPT systems. However, given the rapid advances in technology, these employees will require ongoing training to ensure that they remain capable of administering the system to its full potential.

7. IP telephony systems enhance an enterprise business continuity/disaster recovery environment. True or False?

The distributed architecture inherent to IP telephony lends itself well to business continuity and disaster recovery planning. Call managers are typically deployed in clusters to provide for maximum redundancy, so an outage at a single location will not have an impact on the performance of the system. In addition, survivable remote architecture enables individual branches to maintain full connectivity even if the connection back to the call manager cluster is interrupted. Finally, the ability for users to access centralized system applications from any corporate location provides

Industry studies have shown that the basic financial savings that are attributed to IPT are not realized by IP-enabling a traditional PBX.

additional flexibility for the rerouting of traffic and employees in the event of a localized interruption.

8. Customers can reap the financial benefits of IP telephony by "IP-enabling" their current PBXs. True or False?

Industry studies have shown that the basic financial savings that are attributed to IPT are not realized by IP-enabling a traditional PBX. Traditional PBXs, by nature, require a higher capital outlay and more operational costs to maintain. Simply IP-enabling a PBX perpetuates a more costly operating model and fails to exploit the financial benefits offered by a true IP telephony solution.

Well, how did you do? Hopefully, you were able to sort through some of the hype and learn some of the underlying methods and procedures required for a successful deployment of IP telephony.

Much of the hype around IP telephony is well justified — it is a technology that holds the potential to enable almost unlimited increases in business efficiencies while lowering operational costs. However, the benefits do not necessarily come easily. They require a systematic design and implementation methodology, and comprehensive management of all facets of the IT environment. But, if managed properly, the business payoff can be worth the effort. IT Richard Zimmermann is vice president, network and security solutions of Forsythe Solutions Group ([news - alert](http://www.forsythe.com)) (<http://www.forsythe.com>) and has more than 20 years of experience in the IT communications industry. He also serves as chairman of the board of the Enterprise Communications Association (ECA), an industry forum promoting the deployment of converged voice, video, and data communications solutions in the enterprise.

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Multimedia Conferencing — Power and Purpose

By Martin Milner

Multimedia conferencing solutions come in many shapes and sizes, but they all aim to facilitate, accelerate and support your day-to-day business processes. Conference any time, anywhere, with anyone using these easily accessible and highly functional products.

The Whys and Wherefores

Conferencing and collaboration products today are on the ascendancy because they support, accelerate, and enhance fundamental business processes within the enterprise by:

Saving Time by cutting down and compressing project schedules and timelines.

Reducing travel expenses and associated costs by connecting team members in different places around the world and inhibiting the effects of dispersal in today's businesses. This results in an overall lower cost of service delivery and considerable savings, depending on the size of the company.

Genesys Conferencing polled one of its international Fortune-50 clients about this, asking how many business trips they had avoided during the previous six months as a result of using the Genesys Meeting Center. The results were astonishing. The average was 5.6 trips at an assumed cost of \$1000 per trip. Multiplying this by the 3,306 responses received reveals that the company enjoyed savings of over \$18 million.

Allowing users to conduct more effective communications making 'phone tag' a thing of the past by broadcasting messages that can be picked up

when a user returns to his computer or providing instant messaging enhanced with presence functionality.

Improving overall productivity by keeping people connected and collaborating. They can also facilitate project monitoring, supply feedback into business processes leading to improved decision-making, and foster better availability and use of information and company resources. For example, subject matter experts can be identified and accessed more quickly and questions can be answered without having to wait for a return email or a telephone call. The use of these products can also improve client satisfaction, the overall quality of a product or service and help a company to quickly recover its return on investment. Many, by virtue of their scheduling and organizational features, also facilitate the creation of teams and their assignment to specific projects, thereby shaping work flows.

Miercom reviewed three very different conferencing and collaboration products in September 2006, all of which achieve the above aims but which also bring something of their own to the conferencing and collaboration market. Testing was by way of interview, product demonstration and

hands-on testing.

LINQware Communications presented its Collabrix product, Genesys Conferencing its flagship Genesys Meeting Center and WebEx Communications its high impact webinar-ready product, Event Center. The main features of the submitted products are presented in Table 1 in the online version of this article.

All products reviewed offered the following features with varying implementation differences:

- An interface that has been purposely designed for conferencing (and collaboration).
- Means to start, stop record, replay, report on, and archive the results of conferencing and collaboration activities.
- The ability to present information in full screen mode (sometimes called Presenter Mode).
- A high level of security, often as high as that required by financial institutions.
- Ability for users to share and collaborate via application sharing technologies on most MS Office documents, including PowerPoint, Word, Excel, and, in some instances, Adobe Acrobat.

Genesys Conferencing — Secure, Global and Powerful

"The Genesys Meeting Center is easy to deploy to my end users and the Genesys moderator interface and tools are intuitive and incredibly easy to use."

—Craig Donald, IT Director, Veritas

Genesys Conferencing, based in Vienna, Virginia, showed its powerful Genesys Meeting Center. Services are specifically aimed at the larger enterprise customer and are rich in features that large companies care most about, with particular emphasis on the quality and the customization of feature set and interface based on specific needs, including branding, feature activation and deactivation, and integration capabilities. Genesys' (news - alert) own R&D departments work extensively with their clients during service implementation.

The company has more than 18,000 clients worldwide, presence in 25 countries, and product available in 20 languages. Audio conferencing is available in 15 languages and help/support delivered 24/7 in the local language. Genesys also offers a global high quality video conferencing service allowing connection to multiple system types and platforms.

Genesys provides a fully hosted multi-media conferencing and collaboration service, the Genesys Meeting Center, incorporating comprehensive voice, Web, and desktop video conferencing features. Additionally, the company owns the distribution technologies for its services and can deliver these globally. It claims 2 billion collaboration minutes per year with more than 100,000 worldwide users and is a global powerhouse. Genesys also offers an Event Service that provides operator-assisted service for its clients' large scale and high profile events.

The flexibility and ease of use of Genesys Meeting Center are amply illustrated in the number of ways in which a meeting can be initiated:

- A single click on a desktop icon.

- Via integration with existing desktop tools including links from MS Outlook Calendar and Lotus Notes.
- Via the Genesys.com public Web site, private extranet site and a client's intranet.
- Via a link in an email invite sent by the meeting organizer.
- By an MSN Instant Messenger or Lotus Notes SameTime IM client link (and by the end of this year, Genesys will have support for MS Communicator).
- Genesys' Xpress Meeting is suitable for a quick meeting not requiring the full features of the Genesys Meeting Center interface, useful if all colleagues need to do is to quickly share an application without using a browser.

First-time users have access to quick start windows that help them to initiate and run their meetings. As familiarity increases, these can be turned off.

Participants can join in a call using a regular phone, a VoIP phone, or by using streaming technologies. The Genesys Meeting Center can also be configured

to dial out to conference participants.

Genesys' comprehensive meeting services have been designed to respond to company-wide meeting requirements and offer capabilities that all departments within the larger enterprise can use, including support for:

- Daily meetings (All departments, e.g. progress meetings)
- Interactive demonstrations (All departments)
- Training programs (Training)
- Internal communications (Human Resources)
- Product launches (Engineering and Marketing departments)
- Sales presentations (Sales and Marketing departments)
- Help desk support (Information Technology)

Security for its Worldwide Customers is Paramount for Genesys

Genesys Meeting Center provides users with high-level security throughout all phases of conferencing including presentation, storage, delivery and collaboration. Three types of security are used:

Access Security: Every account holder



Figure 1. The Genesys Meeting Center showing the video viewer panel, activity in the chat window and the delivery of an online poll.

is assigned a PIN (personal identification number), a password can be set and required on a per meeting basis, meeting organizers can also “lock the door” on a meeting; participants will then be defaulted to a waiting room. Meeting organizers can also dismiss one or all participants. In the audio conference, notification tones inform of the arrival of new participants and can require the participant to record their name to be played on meeting entry. Unlike some systems, the meeting organizer has a specific account; other individuals do not have access to the same account or PIN numbers.

Application Security: The product currently uses “unsigned” Java applets, known as “sandboxed applets” which mitigate against access to a participant’s file system or Windows registry. In version 4.0 (available Q4 2006), the Genesys Meeting Center will be migrated to AJAX (see note below). Genesys employs a proprietary compression method and file format to protect all voice calls.

Network Security: Genesys offers 128-bit SSL encryption for all presentation content, login, password information, and application sharing, the same level of security used by online financial institutions.

All Genesys Meeting Center features are firewall transparent; the system adapts to the security policies of firewalls for which regular Web browsing is enabled, with TCP or HTTP protocols, using Port 80 or Port 443 (if SSL is enabled).

Pre-Event Features and Functionality

As one might expect, Genesys Conferencing offers the complete pre-event service, including: Event planning and coordination, content consulting, and training.

With regard to training, the company provides both “Getting Started” and “Enhanced” training sessions for which participants can register through the company website. Genesys also offers training at the client company’s site and

15-day trial accounts can be created for up to five users to test the product before making a decision to buy.

Genesys Meeting Center’s accessible and user-friendly interface includes an area for showing PowerPoint slides, viewing Web pages and includes a chat window by default; settings can be changed by a moderator. Also included are an attendee roster and a free floating frame, which can be resized as required, to show video input. The interface is customizable so that hosts can make available the components that they need to fulfill the requirements of a given meeting. While developing the product, a conscious decision was made to make the color scheme, fonts, buttons and graphics look and feel similar to other products users may have encountered.

Genesys Conferencing provides an excellent reporting feature offering Web Summary, Meeting Usage, Survey, Quiz and Archives reports, as follows:

Web Summary: attendance details including who attended, starting and ending times, and connection duration, **Meeting Usage** offering all of the above plus telephone numbers and how connected (telephone, streaming audio or VoIP), **Survey** showing survey results, **Quiz:** If a knowledge assessment quiz has been used in a training presentation, displays overall or individual quiz results including: pass/fail grades, score, questions correct and missed, and **Archives:** Views of archived presentations, giving date and time of viewing.

Important Note: Genesys Release 4.0 — Scheduled for Q4 2006 — includes an optional single download that will provide meeting organizers with all they need to run a meeting. Participants will not have to download anything and will be able to join via more browsers and operating systems including IE 6.0 or higher on Windows, Firefox 1.5 or higher on Windows, MAC OS and Linux and Safari 2.0 or higher on MAC OS. There will also be a major transition of service to 100% standards-compliant AJAX (which is faster on slower

machines and provides for more dynamic web pages). Included also will be further presence, corporate directories, and calendar features, a move to dedicated media servers to improve scalability and allow the deployment of services such as speech recognition, further greetings customization and an enhancement of VoIP capabilities that will see the introduction of a service using a client’s own VoIP network, and one-two-one IP to IP and IP to PSTN capabilities.

Also, Genesys pricing is based on the *Multimedia Minute*. This is a flat rate per participant per minute for integrated voice, Web, and desktop video. This service, offered on a pay-as-you-go basis makes it easy to track usage by departments and, where required, bill back expenses. The current rate is 18 cents.

EDITOR’S NOTE: Because of its large size, only the first half of this article is printed in this issue. To read the article in its entirety — which also contains an examination of LINQware’s Collabrix and WebEx Communications’ Event Center — please go to the online version at <http://tmcnet.com/381.1>. IT

Martin Milner is a Senior Research Associate with Miercom ([news - alert](http://www.miercom.com)) (<http://www.miercom.com>) and can be reached at mmilner@miercom.com.



**COMPANIES MENTIONED
IN THIS ARTICLE:**

Genesys Conferencing
<http://www.genesys.com>

LINQware Communications
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Cable Telephony — Good Enough for the Enterprise?

Quality has always been a big factor when it comes to cable telephony. Indeed, cable MSOs (Multi-Service Operators) tested VoIP “to death” before they finally deployed it, carefully working out the whole environment, including the architecture, back office, price points and service set.

Cablecos were in no hurry, since in the late 1990s, their competitors, the telcos, were not exactly thrilled about selling IP voice, because it would undercut the profitability of their own circuit-switched operations. Besides, most telcos at the time were more infatuated with the problem of competing with cablecos in terms of video, of having to distribute standard and HDTV across suburbs either over ancient, existing copper wires or a new, expensive fiber-to-the-home (or to-the-neighborhood) infrastructure.

Cable companies realized that the opportunity was waiting for them and they continued to tinker and test until they were happy with the technology. (A few took an easier route by reselling somebody else’s VoIP service.) Initially, cablecos were so conservative that some became suspicious of VoIP itself, adopting, instead, TDM-based, constant bit rate (CBR) systems, such as those from Tellabs. In North America, Cox had over a million lines of TDM-based voice, and then there was EastLink and

AT&T Broadband, which eventually was acquired by Comcast. Ultimately, however, softswitches and CableLabs’ PacketCable architecture and Line Control Signaling (LCS) scheme won the day, and pretty much all of today’s cable operators offer VoIP.

Not that cable operators like to call their voice services “VoIP” — each cableco uses a different name for Cable VoIP. We’ve seen “digital voice” and “cable phone.” Some just call it “local service” in an effort to make it psychologically reassuring and imbue it with the confident, serious ambiance of conventional circuit-switched phone service.

Whatever they call it, as the world adopts IMS (the IP Multimedia Subsystem), along with triple and quad-play services, all cable companies and telcos will ultimately move to an all-IP framework.

But before that great day arrives, cable companies even now are venturing from their traditional residential market, and have begun offering [VoIP \(define - news - alert\)](#) service to small and medium-

sized businesses (SMBs).

For example, Vidéotron, Quebec’s leading cable operator (the third largest in Canada) has been rolling out VoIP service to both residences and businesses. Knowing that the world will be saddled with an IP/PSTN hybrid network for a couple of decades, they needed end-to-end equipment that could handle both IP and PSTN communications flawlessly. So, when Vidéotron decided to expand telephony services to their 1.5 million customers, they chose Nortel (<http://www.nortel.com>) as their primary VoIP technology and professional services provider.

[Nortel’s \(quote - news - alert\)](#) Director of Cable Marketing, Elaine Smiles, says, “Vidéotron will be using our Nortel Communication Server [CS] 2000-Compact softswitch, which is fully PacketCable qualified — an important criterion for cable operators. They’ll use it in a central location and will roll out services to the entire province of Quebec. They’ll also be using the Nuera BTX 4000 media gate-

way that's bundled and sold through Nortel. Vidéotron will use both PacketCable and SIP protocols to create a comprehensive offering of residential and business services. Vidéotron's VoIP service will leverage their existing Optical DWDM and SONET network, which is based on the Nortel Metro Ethernet Networks portfolio including the Optical Metro 5100 and Optical Metro 3500. These will provide IP voice transport and business services to more than 16 locations in the Quebec-Montreal-Toronto corridor."

"Fairly often we find that cable operators don't want to emphasize Voice over IP in the name of their voice services just because they want to differentiate their offerings from a Vonage type of solution," says Smiles. "What they're deploying with the PacketCable standard architecture and with Nortel is a rigorous, carrier-grade quality of service [QoS], fixed-line service. The common residential subscriber isn't going to jump up and exclaim, 'Hey, this is PacketCable-compliant instead of regu-

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lar VoIP!'. In fact, because the market often looks upon regular VoIP merely as a best-effort service, many cable operators choose to emphasize the 'phone' aspect and de-emphasize the 'VoIP' part. In the case of Vidéotron, they just call it 'local service'."

"Of course, a key factor in Vidéotron's selection was that we could do the PacketCable residential deployment, but another was that we could help in their business services area, thanks to our softswitch," says Smiles. "That's a real differentiator for our softswitch in the cable space. Smaller vendors have created custom products specifically for cablecos with residential features. But an operator can leverage the same Nortel softswitch that can be used in both cable and telco markets. If you look at the keynote topics in most of the symposiums running this year, they're all about how to get cable telephony into businesses. That was certainly important to Vidéotron. They needed a platform that could not only serve legacy business services, but one that could also pull in SIP and SIP multimedia services for both business and residential as they evolve toward IMS. After all, Vidéotron is an integrated communications company engaged in cable television, interactive multimedia development, Internet access services, residential telephone service, and wireless phone service."

Good Enough for Business?

Minacom (<http://www.minacom.com>) builds service level test systems for telcos and cable MSOs, and ITSPs (Internet Telephony Service Providers). Minacom's (news - alert) automated test systems help maintain the integrity and quality of large-scale multi-service deployments, including Voice, VoIP, IPTV, Caller ID, voicemail, conferencing, fax, dial-up modem, video conferencing, and IP services from Ping and DNS to audio and video RTP streaming.

Minacom's Director of Marketing, Scott Sumner, says "We saw a VoIP sur-

vey by Brix that indicated that one in five VoIP calls was unacceptable. They were conducting tests using their <http://www.testyourvoip.com> portal. We realized that their study was actually based on analyzing peer-to-peer (PC-to-PC) Internet phone service, similar to what's offered by Skype, Google Talk, MSN, and Yahoo Messenger, none of which have the quality or reliability of the kind of VoIP services offered by telcos and broadband VoIP providers."

"We asked ourselves whether that trend is true with cable VoIP," says Sumner, "which is a managed VoIP service, as opposed to something like Skype that goes from computer-to-computer, which is essentially what Brix was testing using a Java applet. We tested several different local cable VoIP providers here in Montreal. Our tests took 12 months and revealed the opposite — VoIP call quality had actually increased steadily over the past year, with an average Mean Opinion Score [MOS] of 4.2 — 5 is best — compared to 3.9 for the PSTN. It had just broken through the PSTN quality 'barrier'. Amazingly, based on Brix' own MOS threshold of 3.6, only 1 out of 50 calls in North America were considered to be unacceptable — 1 in 10 worldwide — while more than 85% of VoIP calls exceeded average PSTN quality over the same period. Call studies by Minacom and other companies indicate that cable VoIP — or 'managed enterprise VoIP' — is actually a serious challenger to wireline."

"As amazing as those figures are," says Sumner, "we believe that cable VoIP will continue to improve. There are a few things on the horizon, such as wideband codecs, for example, that really deliver high-fidelity voice calls. We're starting to test wideband codecs now, and operators are considering deploying them for enterprise VoIP, especially for conference calls, in which case you'll be able to do stereo conference calls."

"In our market, we're already seeing cable operators starting to offer enterprise VoIP," says Sumner. "There are

two ways they do this. First, for small businesses, they're using a standard cable line along with new appliances made by Scientific Atlanta and Motorola that have four or five MTAs [Multimedia Terminal Adapters] in a box, and it yields something like a 10-line phone system. They can gang them off of one cable line. It's an interesting appliance — it's like installing five residential phone services in a company. Second, the cablecos are moving into larger environments with full-fledged session border controllers, and things like an EdgeMark device, which will give priority to voice packets over data packets so as to achieve larger multi-line counts."

"Cablecos have done well in the residential market," says Sumner, "so they're going up the food chain to the enterprise, and that will really start to hurt the telcos. SMBs are the immediate target — an EdgeMark device can handle up to about 50 lines. With these new managed services you can remotely connect to these boxes and check quality and various things from an EMS [Element Management System]. It's an interesting offering. We've been working with other companies that are doing managed services for larger telcos, and that's the approach they're using as well."

"We work with probably all of the leading U.S. providers and I would say that they all have a lot of room to grow," says Sumner. "Comcast was a bit behind on the VoIP numbers but now they're eating market share incredibly fast. A recent survey listed Cablevision as first, Time Warner as second, and Comcast as third; Comcast had half the VoIP subscribers of Cablevision, but it grows at an incredible rate."

Interestingly, Comcast is going to initiate a 'self-install' VoIP pilot project in Silicon Valley," says Sumner. "You'll be able to go to a store such as Wal-Mart and buy an MTA, take it home, and plug it in yourself. That's something they've never done before; in the past, Comcast always sent a technician to

Cable companies realized that the opportunity was waiting for them and they continued to tinker and test until they were happy with the technology.

your house to do an install. Other companies, such as Cox, don't believe in self-installs. But I think most companies will be forced into this model, since the fastest way to deploy and capture market share is to have customers install their own device and service, which is predominantly what's already happening in Europe. The big guys over there, such as Liberty Global, have completely self-installed subscriber bases. They don't send technicians to your home unless there's a problem. That trend will gradually come to North America. Even now you can go to a Circuit City store and buy a set-top box, take it home, plug it in, and it will work with many cable services out of the box. Also, people now install their own satellite dish systems, so these things aren't as intimidating as they used to be."

"To respond to this self-installation market, we at Minacom have created a new IVR [Interactive Voice Response] VoIP test system called 'Zoey', which you can call on your phone. Zoey walks you through a series of tests of your caller ID, echo, noise, MOS score speech quality, touchtone, fax transmission capabilities, and 50 QoS metrics to determine if your handset or installation is having a problem. It also works for companies like Vonage or companies that are offering a 'pure Internet' telephone service. It's basically a test probe, but there's no technician at the end of the line. If there's a problem, Zoey transfers the call to the service provider's support team along with the test results to get the customer up and running. The test results are stored on one of our DirectQuality R7 servers and are accessible by operations staff, field technicians, billing systems, and so forth."

Onward to IMS and FMC

No tour of cable telephony (or any kind of VoIP) would be complete without a sit-down with the IP behemoth, Cisco (<http://www.cisco.com>). Cisco ([quote - news - alert](#)) is a very large player in the cable voice market. Their immense portfolio ranges from equipment in the customer premise itself,

through things like Linksys devices, all the way up through the network infrastructure. Cisco's CMTS (Cable Modem Termination System) is a Cisco uBR (Universal Broadband Router) that's able to communicate with a DOCSIS (Data-Over-Cable Service Interface Specification)-compliant HFC (Hybrid Fiber Coaxial) Cable network via a Cisco MCxx cable modem card. Additionally, Cisco's BTS 10200 is one of the leading softswitches in the cable voice market and is directly responsible for generating a great deal of revenue seen by service providers.

Jonathan Rosenberg, a Cisco Fellow in the Service Provider and Routing Technology Group at Cisco Systems, says, "To be frank, VoIP has been a resounding success in the cableco world. Many operators report excellent take rates. VoIP has a direct impact on the bottom line of these companies. It shows that the triple play model of voice, video and data services is compelling to customers."

"Cisco is almost a top-down infrastructure provider in the cable telephony space," says Rosenberg. "We cover almost all aspects of the network architecture, ranging from the access device itself to the CPE to the IP network from the access side, backbone, interconnect networks, interconnect networks, call control, and PSTN interconnection."

"Most cable efforts are at least triple play," says Rosenberg, "but the big looming issue in the industry is... what about quad play? What about that fourth, mobility aspect? Many cable operators want to get to mobility as another angle of that service, but it's pretty much 'up in the air' as to how exactly they're going to get there. Much of it has to do with whether or not strong business relationships can be forged with cellular operators, or whether the cablecos will go their own way and build their own infrastructure, or lease it, or whatever. We're still in the very early stages. Several MSOs, including Comcast and Time Warner, have announced a joint venture with Sprint,

targeting the addition of that wireless component. Then there's the MVNO [Mobile Virtual Network Operator] model, where the MSOs become virtual network operators, and 'lease' a logical piece of the wireless network. Finally, people hear rumors about acquisitions all the time. I even hear stories about operators building out networks, whether it's traditional cellular-to-WiMAX or WiFi meshes or whatever."

"None of these plans are cheap or easy," says Rosenberg. "This isn't like installing a little box in the network. It will take time to sort out."

"Bridging services to wireless of course suggests IMS and FMC [Fixed/Mobile Convergence]," says Rosenberg. "But nothing's black or white. IMS is a whole huge suite of technologies, so cable operators will most likely work incrementally toward IMS, adding little bits and pieces of it as necessary to support whatever application or business problem happens to be sitting at your front door. IMS is a sort of target blueprint toward which an operator builds. But IMS by itself is not a business proposition — it's an architecture. To do six-layer convergence will require some pieces of IMS supporting SIP line-side interfaces, for example, and supporting some application interfaces to support the anchoring server needed for an application."

"We at Cisco are moving into the IP network from the access side to the backbone," says Rosenberg, "encompassing interconnect networks, call control, PSTN interconnection, and so forth. We're continually evolving out products. As operators devise new applications they want to deploy, we'll be right there with them to support them and their billing infrastructure." IT

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

IPTV — What's Not to Love?

Before we examine the current IPTV scene, let us define our terms.

IPTV is a high-quality service, the successor to conventional pay-TV. It's a couch potato's dream: Fast channel changes, interactivity, services that will catch you by surprise (Caller ID and email notification appearing on your TV screen, multiple picture-in-picture windows, a super-sophisticated program guide, and much more). IPTV is designed to appear on your TV (not your PC) and it's brought to you by major cable companies, such as Comcast, and equally major telcos, such as AT&T, Verizon, Bell South, Bell Canada, etc.

Internet Video, on the other hand, is any video that travels over the Internet and reaches your PC via your broadband connection. It could be streaming video. It could be something that's downloaded in its entirety before it's run. The video is most likely free and may have some kind of advertisement inserted in it. Internet videos generally are more 'free form' than IPTV. Some are backyard efforts by teenagers or would-be Hollywood cinematographers. Some are commercial or corporate in nature. Consider the difference between broadcast TV and any other video (including the one taken of your wedding). Now you get the idea.

As cable companies began to offer voice service, telcos were spurred on to invade the cablecos' "turf." While the giant RBOCs either pretended that

nothing was happening or were wringing their hands while looking into the matter, examples of innovation sprouted up in rural areas of the U.S., the same areas where softswitches had first gained a toehold some years ago.

Indeed, there is still much activity occurring in the American hinterlands. [Falcon Communications \(news - alert\) \(http://www.falconcommunications.com\)](http://www.falconcommunications.com) recently announced IP/Complete, an all-in-one, end-to-end IPTV delivery system ("from bird to box") that targets the 1,500 Tier-2 and Tier-3 telcos found in the rural U.S.

IP/Complete includes 145-channel selection (with 30 HDTV channels coming in 2007), local off-air RF HD Channels (four channels included and standard in the system), a fully secure and encrypted signal throughout, a 5-meter dish (not 3.8), a one-call, full-

Falconite service team response on any part of the network, and much more.

Of course, vendors are not just targeting innovative smaller operators, since IPTV trials (and deployments) have been increasing throughout 2006 among larger operators too. Innovation is now occurring everywhere. For example, [NDS \(news - alert\) \(http://www.nds.com\)](http://www.nds.com) and [Jungo \(news - alert\) \(http://www.jungo.com\)](http://www.jungo.com) have also partnered to offer IPTV operators a new way to store and access content, and to provide distributed DVR (Digital Video Recording) capabilities to their subscribers, based on NDS Synamedia Metro middleware, which is based on NDS' MediaHighway. Jungo's Open RG residential gateway software has been integrated into Synamedia Metro, resulting in an IPTV solution that doesn't require a set-top box with an internal disk drive, and so a nearly unlimited amount of content can now be stored and accessed on other home network devices, such as a PC.

The integration has also led to ShareTV — a peer-to-peer content sharing solution that allows users on the network operators' network to share encrypted content. A subscriber who missed an episode of his or her favorite



series and forgot to record could now request the episode from other subscribers using the Share TV facility.

IPTV and IMS

Few network operators, be they cable or telco, will solely deliver IPTV. Rather, it's expected that triple-play and then quad-play services bundles will become the norm, all of which will be supported by IMS (IP Multimedia Subsystem) that will serve as a common service architecture for both wireline and wireless operators.

At [IntelliNet Technologies \(news - alert\) \(http://www.intellinet-tech.com\)](http://www.intellinet-tech.com), Arun Handa, CTO, says: "IntelliNet has helped its customers to accelerate revenues in new network domains with a multiservice signaling platform and convergence elements. These days, if IMS isn't in your strategy then there's something wrong — how can you be in the telecom industry? IntelliNet has been around since 1992. We've focused on the very niche area of signaling and how it enables all the services that exist in

the core network. We've enabled various platforms and applications in the core network space. That work has spanned both traditional and converged networks. From this we can see that IMS is indeed becoming the platform of choice for the next-generation network. We've made a smooth transition to developing IMS solutions."

Handa continues: "If someone were to ask me, 'What is the next killer app?' I would say that it will be video-based, and that precisely fits into one of the original objectives of IMS, to enable multimedia communications everywhere."

Dan Wonak, IntelliNet's Director of Marketing, adds, "Working within the IMS domain, we provide enabling building blocks so providers can put together some of these services. But we're not 'media guys'. When you look at IPTV for example, it involves a lot of streaming. We don't have anything that does streaming or anything that could take us into the content business. Instead, our objective, especially with IPTV and the work we're doing in the

IMS space, is to see how effectively we can work on making a rich set of features. Basically, of course, IPTV doesn't need IMS, and IMS doesn't need IPTV from a technology perspective. If you talk to any contrarian out there, he'll tell you 'What's the big deal about IMS? I can do IPTV without it.' But when you put the two of them together, you really get a synergistic result greater than the sum of its parts. Both IPTV and IMS by themselves are indeed struggling for a very strong and compelling business case. IPTV doesn't just relate to streaming video. IPTV is fully functional and available as a service with the guaranteed quality of the service level agreements [SLAs] that are required for video distribution. However, how can we make IPTV more desirable? How can we provide the user with a more multimedia experience? This is where IMS helps."

Ironically, some of the smaller operators that were so innovative in terms of adopting IPTV may not be so keen on IMS. Brian Naughton, the VP of Architecture and Strategy at [Axiom Systems \(news - alert\)](http://www.axiom-systems.com)

(<http://www.axiomsystems.com>) a U.K. company firmly entrenched in the OSS space, says: "Take what some people are calling SDP [Service Delivery Platforms]. IMS is this all-encompassing architecture, it allows you to do multiple access and all that kind of stuff. But the SDP market seems to be, at least in terms of what we're doing, the common platform for triple-play in smaller carriers. They don't really care about fixed/mobile convergent offerings. They just want an application server on which they can deploy new services across an IP network that they own or else a different provider wholesales it through them. IMS right now doesn't really play in their thinking. It's just an application architecture to get new services out the door. Mobile operators, however, are getting excited about IMS because it bridges them into fixed communications, and fixed operators are excited because it bridges their services into the mobile world. IMS does have a profit-altering effect on those operators by bringing them into new markets."

"IMS, in one sense, is a walled garden approach to managing IP services over personal devices," says Naughton. "It also allows these operators to bridge into either mobile or fixed markets. The promise is that you have an application that abstracts away all of the mess underneath, that allows you to get into the two areas with new services. I haven't seen that become a reality yet. We're still seeing people deploy services in 'silos'. IPTV application servers are still being deployed in a complete stack on top of an IP network. And we're still seeing people deploy voice offerings in a complete silo on a softswitch-type architecture, and so on."

Tests and More Tests

Unlike Internet video aficionados, IPTV subscribers expect high video and audio quality since they're paying a premium for the service. Ensuring high quality entails sophisticated testing equipment, software and procedures.

At **Psytechnics** ([news - alert](http://www.psytechnics.com)) (<http://www.psytechnics.com>), Benjamin Ellis, the Director of Global Marketing, says, "The IPTV market is in a curious stage at the moment. There are two dif-

ferent dimensions to getting it right in terms of quality. The first thing people notice are set-top boxes. The industry is increasingly standards-based — MPEG2, MPEG4, AVC, etc. — but there's quite a bit of difference in quality between the different devices because quality is not just based on algorithms; it goes all the way down to the chips they use, and how well the software deals with network issues — individual set-top boxes are quite different in that respect. So there's a considerable amount of vendor testing going on there as IPTV becomes a reality."

What's interesting for us and the industry is what you'd might call 'in-service quality assurance'," says Ellis. "The first category is what we call 'content assurance.' We tend to use 'active testing' or 'full reference-based testing' in such cases. We'll take the video content as it arrives at an IPTV provider — the reference source — and we'll compare that with the version of the content that ends up streaming out of the IPTV service. Psytechnics has great diagnostics that tell you what the user's MOS [Mean Opinion Score] should be, which is the classic benchmark for the user's perception of quality. Our diagnostics can be used either to go back and re-encode that content a different way, or give some insight into whether you're going to be able to receive that content or not."

"The second category of in-service quality assurance occurs in the network," says Ellis. "At the moment in-network testing is a lower priority for operators, but I think it will skyrocket in importance as operators expand from serving a few hundred thousand users to millions, which will load up the networks tremendously, creating traffic congestion. The way you deal with this is with 'passive testing', which means that you're testing something without comparing the signal to the original material or with no control of the original material. In such cases we use our passive measurement tool, our Psytechnics Video IP monitor or PVI, as

our network customers call it. The PVI examines network statistics, plus a lot of other statistics on the IP level, and it predicts with a very high degree of accuracy what the impact will be on the user's perceived experience. So PVI can sit in the network and report up to us what the quality of experience the user gets based on the condition of the IP video stream."

"The third category of testing to which the market is evolving, is to conduct measurements inside the set-top box," says Ellis. "I had previously mentioned vendors that test set-top boxes when they design it and build them. That's obvious. We've helped vendors improve the quality of their set-top boxes. But what's more interesting for the network operators is that, once they've got the set-top boxes deployed out there, they can get quality of experience data right from the set-top boxes themselves, right at the point where the user is watching the TV program."

Mobile IPTV?

A couple of years ago, **Riverbed Technology** ([news - alert](http://www.riverbed.com)) (<http://www.riverbed.com>) and Peribit Networks (now part of Juniper Networks) became involved in Wide Area Network (WAN) optimization over the fixed line. There were a couple of acquisitions by Cisco and Juniper in this area, driven by the demand for better Quality of Service (QoS) by end users. As video moves into the mobile environment, a similar optimization/infrastructure overhaul is occurring, yielding better performance, a better user experience, and more control by network operators.

For example, take **Venturi Wireless** (<http://www.venturiwireless.com>) and its patented Adaptive Airlink Optimization™, which optimizes TCP applications for efficient transport across wireless networks.

Venturi's ([news - alert](http://www.venturiwireless.com)) CEO, Bret Sewell, says: "Our technology focuses on mobile broadband services optimization. We have a great interest in the mobile space, and we work closely with

One company involved in IP video distribution that is as comfortable with IPTV as it is with Internet video is thePlatform

mobile operators to take their IP services and optimize them for the mobile experience. The benefits are twofold: First, an enhanced customer or subscriber experience, because our technology allows the subscribers to enjoy faster speeds, quicker download times, more consistent connections and greater reach as they travel through the mobile/cellular network. All of that adds up to a much more enjoyable user experience. Second, it allows operators to make better use of their network infrastructure and the spectrum that they've bought, so that they can afford to put more users onto the same network, and, therefore, lower their cost of service delivery."

"That, in a nutshell, is our value proposition," says Sewell. "We've created an architecture that we call Adaptive Airlink Optimization that uses a couple of different techniques, such as caching and compression, but the 'secret sauce' and the core value that we drive is in what we call the VTP, or Venturi Transport Protocol. TCP/IP was not originally designed to travel over wireless networks. Fortunately, Venturi's VTP enhances the TCP/IP connection over the RF link and gives you the performance benefits I mentioned previously."

Adds Paul Obsitnik, Venturi's VP of Marketing and Business Development, "We've taken a look at various types of multimedia services, both download and streaming, and we've done some interesting things in adapting our solution to, for example, some of the handsets out there. We're working with Samsung, for example, to drive optimization so 'mobile TV' becomes viable. A lot of people now understand the idea, but there are questions about how quickly the adoption will occur. The closer you get to delivering 30 frames per second and a clear image, the more interest you'll see from the users and, therefore, there will be more revenue for the operators. So, we're in discussions with various companies in the ecosystem, such as handset OEMs, the operators, and even folks like [MobiTV \(news - alert\)](#)

(<http://www.mobity.com>) and other companies in the multimedia sphere."

Playing on Both Sides of the Fence

One company involved in IP video distribution that is as comfortable with IPTV as it is with Internet video is [thePlatform \(news - alert\)](#) (<http://www.theplatform.com>). Its flagship product, the Platform Media Publishing System™ (MPS) is really part content management, part policy management and part publishing engine; it's designed to handle the workflow of taking content and making it available over broadband or mobile networks. It enables media, entertainment, and enterprise customers to publish digital media over any network and to any device. You can monetize the content through advertising, premium pay services or syndication. Customized feature enhancements and seamless systems integration are made possible by using thePlatform's web services MPS-SDK.

Recently thePlatform unveiled Connectors. Built on MPS, this scalable Web-based service accelerates the technical execution of digital media licensing agreements, letting content providers reliably publish digital audio and video to broadband media sites and mobile carriers. One of the first companies to adopt Connectors is Airborne Entertainment, a pioneer in producing and publishing original digital media content for the mobile marketplace with over six years of experience. Additionally, thePlatform announced it has built Connectors for such broadband media sites and mobile carriers as Amp'd Mobile, Cingular Wireless, Comcast.net, GoTV, MobiTV, MSN Video, QuickPlay Media, Sprint TV, and Verizon Wireless.

Ian Blaine, CEO of thePlatform, says, "We have two main constituents as customers: First, there are content owners who want to distribute their material or build their own destination sites for broadband and mobile consumers. Examples include CNBC, Scripts

Networks, ABC News, NBC, and companies such as those, that want to extend the 'shelf life' of their content via digital distribution."

"On the other side," says Blaine, "we power many distributors, be they a telco, MSO, or a portal company that's engaged in a broadband or consumer play. In that area we have Comcast as a customer for their broadband video services, Verizon Wireless for their VCast, Telstra in Australia that uses us for a movie download service — Starz uses us for a similar purpose. You can see the breadth of things we can handle and what we have announced with the connector service is a layer on top of MPS that really streamlines distribution for content owners. We've gone out to distributors we work with in the market, such as mobile carriers, and we've built 'connectors' to them so that our content owners can put their content in our system once, and we take care of all of the transformation of the media — so you receive it in the right format and bit-rate. The producer can take care of the metadata, so that the content can be searchable and is formatted in a way that the outlet expects, and you manage the policy, so that you are assigning rules to the content so that when it's published, it's done in a way that meets the needs of both the content owner and distributor. So, in effect, for someone such as ESPN, one of our first customers for this, they can put a piece of content in our system, they can choose the distributors they want it to go to, such as Sprint, Cingular, Verizon Wireless, and all they have to do is check off some boxes, and we take care of everything else that is necessary to get that content to those carrier decks." IT

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Real-World IPTV Deployment Concerns

The Top 10 Things You Need to Know to Successfully Deploy IPTV

Internet protocol television (IPTV) is creating new business opportunities for broadband service providers. You, the operator, now can introduce exciting revenue-enhancing triple play (voice/video/data) services. Your subscribers will be able to get all the services from you, conveniently bundled into a compelling package.

IPTV ([define](#) - [news](#) - [alert](#)) is a hot growth sector of the telecom equipment industry and has suddenly attracted many companies competing in this space. You face a dizzying array of solution architectures, equipment combinations, and applications.

You have no doubt given considerable thought to the new services you will offer — basic and premium digital television (DTV) channels, video on demand (VoD), personal video recording (PVR), gaming, Web access via TV, and targeted advertising. You have analyzed required capital investments and have projected revenues. You have seen vendors' proposals, roadmaps, and their visions into further communications and digital home services. You have developed vendor evaluation criteria, checked references, and perhaps even visited other deployed providers.

Have you overlooked anything? If you have not deployed video services before, you may not know where the "land mines" lie — the "unknown unknowns". Some vendors' short track record leaves

even them learning. However, doing 80+ IPTV deployments over six years has taught Siemens where these issues are, and how to either eliminate them or minimize their impact. Consider the following IPTV real-world fundamentals. You are well advised to investigate these before you select an IPTV solution.

1. Disruptive Innovation

IPTV is still new and has the potential to be disruptive with respect to established TV and communications usage modes, content distribution and control, regulatory restriction, and more. Changing the establishment is a daunting and risky prospect for the operator. A more certain approach might be to first replicate existing TV viewing fundamentals.

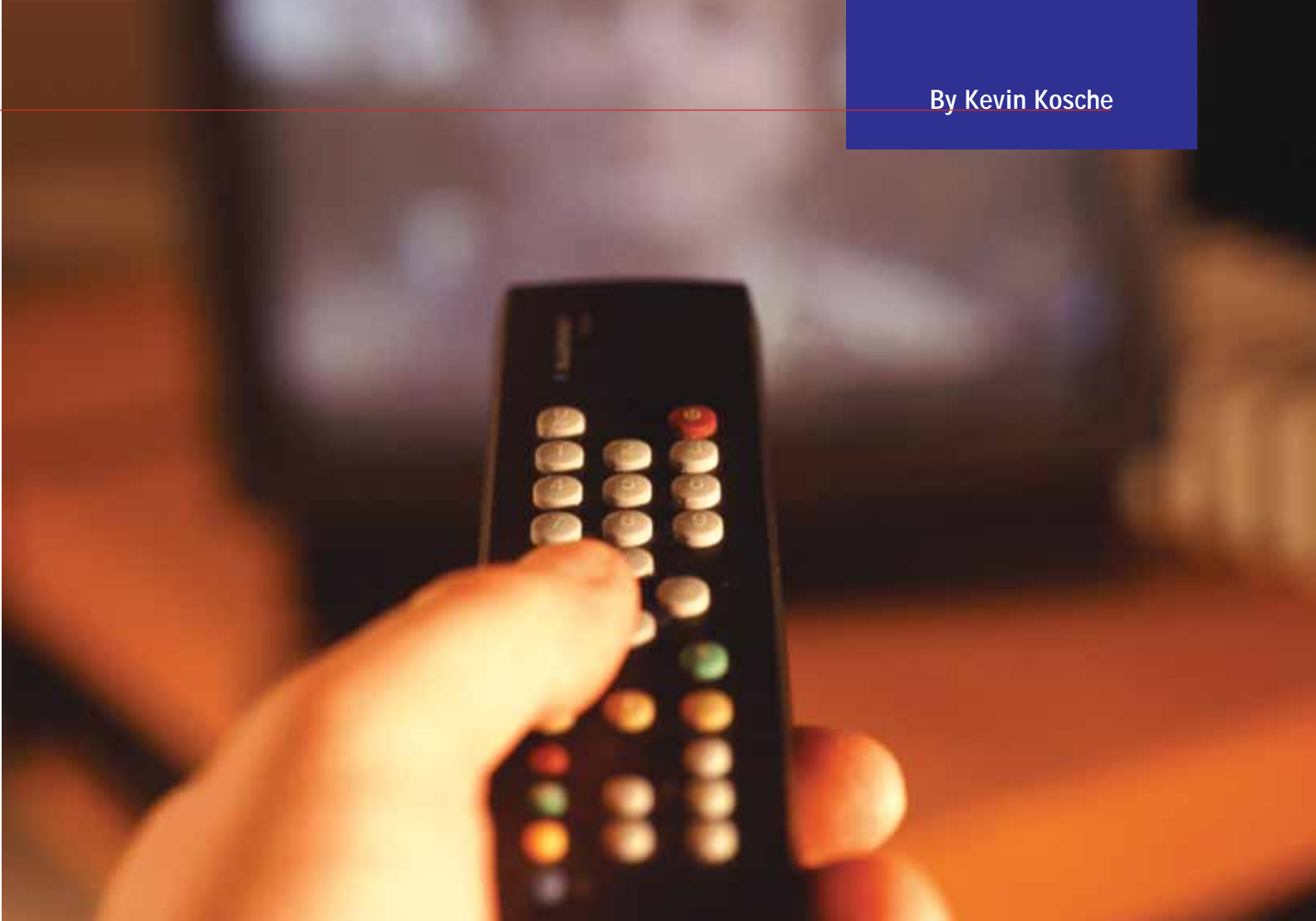
Your consumers range from small children all the way to the very elderly — some technically savvy and some not at all. Don't assume that all your subscribers are computer literate. There is a large demographic of television viewers — roughly, the 39- to 50-year-old age

bracket — the massive passives — that is happy to view broadcast television without interaction and without controlling what flows over the screen. These viewers' habits will not change overnight. What would happen if the basic TV interface suddenly changed? Can you afford that many service calls? You should first "do no harm" to basic viewing, while introducing enhanced services in an intuitive, easy-to-navigate manner.

There are companies that control the production, licensing, and distribution of content. They have established rules about content distribution and advertising, and these rules will not change overnight. You can't circumvent them, and you are not likely to single-handedly change their business models. What you can do is work within their business models, expanding their distribution, and creating more revenue for all.

2. Content Acquisition

"Content is King!" Abundant premium content is key to your rollout. Incumbent video services providers,



your competition, will take defensive measures, including enhancing their own content, so your content offering has to instigate the churn of many of their customers.

In your pursuit of content, you can quickly become mired in an onerous process of establishing contacts, negotiating licensing, and responding to multiple technical questionnaires and subsequent clarifications to convince content owners of your IPTV implementation's level of security. This could introduce many months' delay into your rollout.

Can your IPTV solution vendor facilitate this? Do they have a proven process to guide you through these steps? Have they been "certified" by the major studios? Do they have relationships with content owners and aggregators? Most importantly, do they have multi-vendor encryption and digital rights management solutions? You should expect the answers to these questions to all be "YES."

3. Branding

The user interface (UI) displayed by

the client software can offer opportunities to present and promote your brand and create loyalty for your service. You should expect that the look and feel of the UI can be customized for this purpose. There should be flexibility on all screens and at all menu levels to accommodate your trademark colors, fonts, layouts, logos, etc.

The displayed brand should be yours, not your vendor's. Why would your vendor's brand need to be seen by *your* subscribers? Is your brand stronger than your vendor's? Are they intending to reach *your* subscribers directly?

4. Architecture Scalability

Many IPTV solutions are quite new and have not yet been commercially deployed. Rather, they have been demonstrated in controlled laboratory scenarios or perhaps been used in limited trials involving friendly, non-paying users. These vendors are still waiting to "land the big one." Do you want to be their first?

System scalability troubles will *not* surface in a lab or trial. You might

encounter scalability limitations when your IPTV subscriber base numbers in the tens of thousands, and then again at hundreds of thousands. Poor scalability will manifest itself in the form of excessive network demands, (necessitating very expensive bandwidth upgrades), compromised quality of service, and your architecture expanding into hundreds or thousands of servers. It will certainly invalidate the capital expenditure projections that you did as part of your business case. Are you prepared, financially, and operationally, to build and maintain a large server farm and numerous facilities?

How do you mitigate this risk? Careful analysis of the scalability of solutions you are considering. Proof, as evidenced by large-scale success of your vendors' reference customers. Visit those customers and ask them about scalability.

5. Multicast vs. Unicast

Many viewers will be watching the same popular channels at the same time. Multicasting is the most efficient technology for video delivery, reducing

required bandwidth in your network. If your solution does not multicast, each channel has to be replicated in the transport network for each viewer watching it, significantly wasting network resources. With multicast, each video channel is transported *once* through your network.

With the efficient networks afforded by multicast, basic services such as broadcast TV can be introduced at a very reasonable cost. This efficiency then leaves precious bandwidth available for other applications that must necessarily be delivered unicast, such as video on demand and online gaming.

6. IPTV Applications vs. Web Browser-based Client on the Set-top Box (STB):

Some IPTV solutions are based on a Web browser client/server architecture, wherein the processing for rendering menu screens, guide navigation, etc., is performed by servers installed at your central office. With a browser-based client, the STB's job is simple — it simply renders pages sent from the server, much like an ordinary computer rendering a Web page, and, of course, decodes the incoming video stream. Browser-based clients offer the advantage of a smaller SW footprint requirement in the STB. A less powerful, less expensive STB might better operate with a browser client. However, this architecture incurs two distinct disadvantages. The first is that a browser-based client requires unicast communication with the server in response to virtually any action performed by the user. For example, if the user opens a program guide, that displayed guide page is presented only after a unicast request to the server followed by a unicast page sent from the server to that STB. This sequence may result in sluggish response, depending upon how many people are accessing the application, to user key clicks. Think about your favorite website. Is the responsiveness of that site always predictable?

Note also the impact to service if your server should go down or otherwise lose

connection to the network — your users' TV experience will be interrupted. If your network is not 100% available, you risk a compromised user experience. If you intend to deploy a browser-based client, consider carefully the bandwidth that you must allocate to its unicast communication. The second major disadvantage to this type of client is the amount of back office hardware required to support it. If you add servers and allocate their capital and operational cost over your subscriber base, then your STB savings may evaporate.

Conversely, an IPTV application on the STB puts the processing for these operations into the STB. The result is that the required STB hardware resources may need to be slightly greater than that needed with a browser-based client. An IPTV application on the STB, however, can operate mostly autonomously from the central servers. Application execution is done without server participation. User interface navigation is performed locally on the STB. Guide data is resident on the STB. Unicast communication with the server is minimal, required only for such things as VoD rental transactions. The user can still watch TV even if the server is off line. Because of superior communication/scaling and service level performance, the IPTV application on the STB better fits into telco network environments.

7. Integration to 3rd Party Systems:

IPTV deployments require integration between the IPTV solution itself and numerous other essential legacy systems, including systems for OSS/BSS, Caller ID, emergency alert system (in the U.S.), ad insertion systems, etc. These systems all likely came from different sources, and you cannot just assume that they will naturally play together.

They come to work together through a deliberate integration effort. But, you can benefit if your solution vendor has, through prior deployments, already encountered this specific third-party equipment and already done this specific

integration. If so, great! If not, your solution must accommodate these other systems, most likely through external application programming interfaces (APIs). You need to understand what data needs to be passed and in what format. These APIs should be present, well-documented, and conform to applicable open standards. You should also ascertain the flexibility and cost of all parties to tailor these interfaces as needed.

8. Set-top Box Choice

You will need choices — more than one — in set-top boxes (STBs). Some of your subscribers will need a PVR box, others won't. Some with premium services may need a more powerful box than others. Some will take high-definition programming. Over time, boxes may be discontinued and new ones introduced. Thus, you may very well have a mixture of boxes in your deployment.

You are buying the features and services touted by your solution vendor. Do all features run on all their compatible STBs? The economic reality of a large deployment is that the boxes *dominate* your capital expenditures; thus you may be economically compelled to deploy low- and middle-range boxes. Don't be fooled by demos of very jazzy functionality that in fact won't run on real-world boxes — the ones that work for your business model.

An STB model doesn't just by chance work with your IPTV solution. It has to be integrated to the solution, either by the box manufacturer or the IPTV solution vendor, or both. Depending on the client software design, its portability, and its maturity, this may be a relatively straightforward or very grueling process. So how is this performed, by whom, and how long does it take? This will pace the timeline between a new box introduction and its deployment. Does it require custom code development, or is the client portable from box to box? Do they have a defined process to certify new boxes? How many new boxes do they tend to introduce in a given year?

Once you make a substantial invest-

ment fielding boxes, you want to keep those in usage for years. Each box model that your vendor has certified and continues to support represents a potential support and backward compatibility burden. Over time, older boxes may lack the processing power, etc. needed to run ever more complex, newer applications. How long will your solution vendor commit to support old boxes? Does their history confirm that?

9. Operator Usability

Much is said about the end user experience, and rightly so, but consider also the daily operation of the system from your perspective. Your personnel will be using the system's back office components. What about the solution's administrative features?

Consider the tasks associated with defining service packages, pricing, and assignment of packages to subscribers. How do you define DTV channel line-ups? How do you define various types of packages that can be offered? Does the system provide for regional variances in channel line-up and package definitions? Does it permit subscriber attributes to be defined so that you can manage subscribers on a groups/classes basis? The sophistication of these features will impact the efficiency of your support staff.

How do you manage content and its associated business rules? Your on-demand content will have defined distribution windows, and outside of these you will be prohibited from distributing it. You may receive content well in advance of the dates in which you are legally authorized to offer it to your subscribers. Then, some time later, you must cease offering that content. Failure to properly manage content could result in loss of current and future content rights, or worse. How does the system manage the receipt, encryption, storage, pricing, activation, deactivation, and deletion of content? With potential libraries containing thousands of content items, you cannot manage this manually.

How are new subscribers provisioned?

Do you intend a truck roll to install the service to each new subscriber, or will you mail an STB, cables, and instructions to them? Will you have to manually manage the STB/subscriber association, or will the system auto-provision that box when it is connected to your network? Wouldn't it be nice to brand, market, and sell your video and other services in existing retail outlets? Make sure your deployment can support auto-provisioning.

10. Maintenance

Maintenance difficulties and expense incurred by poor system scalability has already been mentioned, and there are more operational realities that can become burdensome with a poor design or if key operational features are lacking.

Is the solution vulnerable to viruses? Your business case did not include the expense and maintenance for virus protection to each of hundreds of thousands of STBs. Some operating systems have a history of virus attacks. What operating systems will your servers and STBs rely on?

How will you troubleshoot a user problem? Does the system provide for remote diagnostics, logging, and status query, or will you have to do a truck roll to the subscriber's home — and, thereby, also delay satisfying that customer? Does the design provide friendly error messages to the subscriber so they don't call you over simple errors, such as unplugged network cables?

How does the solution perform client software upgrades? Are upgrades administered centrally by the operator or do they require that the user do the upgrade? Are STBs all upgraded in unison, or one-by-one? How long would it take to upgrade a quarter-million boxes? Are services interrupted during that time? How does the upgrade effect network load? Can you query the loaded software revision for a specific box?

What happens after a widespread power outage? When power is restored, and all your STBs are simultaneously trying to boot, what will your network

Choosing the wrong solution or vendor could cost you significantly in terms of competitiveness, delay, investment, and, perhaps, career.

load look like? What documents/files do the STBs need to retrieve from your central servers? Are these files delivered unicast, duplicated for each of your hundreds of thousands of boxes? How long would that take? Your system will recover more elegantly if the client software resides on the STB, and the STB needs only minimal data from the server. Additionally, those files should be multicast to the STBs.

Regardless of the solution you ultimately select, the system integration demands that your technical staff have or acquire new skills. Build-up, maintenance, and expansion of IP-based services are not trivial and may be a significant departure from the technologies you have "grown up with." You need IP experts. Your network also needs to be rock-solid and 100% compatible with your IPTV solution. If there is any weakness in your network, video will find it! Does your planned solution provider offer advanced training for technical personnel? If not, how do you intend to get these employees up to speed?

Your triple play plans are based on solid reasons. You need to get it right the first time. Choosing the wrong solution or vendor could cost you significantly in terms of competitiveness, delay, investment, and perhaps, career. Think it can't happen? Search the Internet for the major announcements of your potential IPTV vendor's account wins. How many of those are deployed?

Nonetheless, there are solutions to help in getting your solution deployed as planned and on schedule. Choose well, and get a commanding head start! IT

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