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TMC INTERNET TELEPHONY®

The IP Communications Authority Since 1998™

VOLUME 13/NUMBER 7 JULY 2010

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Latency Matters

Cloud Computing, Rich Media & Financial Industry Drive Changes in Data Center, Colo Space

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TMC Labs Announces Innovation Awards Winners

Sizing Up Telepresence

Optics Watch:

- Industry Coalesces Around MPLS-TP
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Business VoIP, Barcodes, Social CRM and More

I couldn't decide on just one subject for this issue's letter, so this column will be a grab bag of sorts this time around.

First, it would be remiss of me not to mention the North America Business VoIP Services Leadership Matrix recently released by our friends at Infonetics Research.

The report says there are now more than 100 service providers offering business VoIP services in North America, with many that have fewer than 10,000 IP Centrex subscribers of IP lines or trunks. And it names the top IP connectivity service providers as AT&T, Cbeyond, and Verizon Business.

"This year the top ten providers in both the IP Centrex and business IP connectivity markets represent a broad mix of incumbents, cable operators, and competitive service providers," says Diane Myers, directing analyst for service provider VoIP and IMS at Infonetics Research. "This cross-section of providers offers a good set of options for businesses looking at voice over IP services. Service providers hoping to succeed in this fast-growing market, particularly with hosted PBX, need to know that the most critical factors for success are financial stability, proven experience in hosted PBX deployments, and quality service and support. At this stage in this market, the fundamentals are much more important than the bells and whistles, especially when going after larger enterprises."

On an entirely separate note, there are some fun and interesting developments on the social networking front that seem worthy of note.

One is the intersection between barcodes, smartphones and social media.

I'd like to invite you to attend The Social Customer Summit at the upcoming ITEXPO West 2010, Oct. 4 through 6 at the Los Angeles Convention Center.

As I discuss in the feature article "The Big Mo is in Mobile Advertising" later in this issue, everybody from upstart Stickybits, which just got a $1.6 million infusion, to relative old timers like Verizon, are talking up the idea of using barcodes to promote and share information about products and experiences.

Speaking of social media, have you heard about NBC's new Fan It initiative?

The network in mid May launched Fan It, which invites viewers to earn points that can redeemed for rewards by discussing NBC shows on Facebook, MySpace, MyNBC or Twitter. Rewards range from NBC merchandise and sweepstakes entries to tickets and props from popular NBC series.

While we're on the subject of social media, I'd like to invite you to attend The Social Customer Summit at the upcoming ITEXPO West 2010, Oct. 4 through 6 at the Los Angeles Convention Center.

The largest buzz in the call/contact center space recently has been about how to incorporate social media into the way companies communicate with their customers and prospects. The Social Customer Summit will delve deeply into how companies can take advantage of social media in providing customer service, updating customers and keeping in touch with prospects. **IT**

Why Google Sought Out GIPS

I first met the company called Global IP Sound around 2002 at TMC's ITEXPO and Pulvermedia's VON expos. What differentiated the company was it ability to power wireless VoIP calls over PDAs – specifically Compaq iPAQs via a low-bandwidth codec.

As you can imagine, at the time, the codec needed to be not only low-bandwidth due to the slow wireless connections, but also super-optimized because processors in PDAs at the time were not powerful.

Over time, the company supplied technology that allowed Skype to popularize rapidly its Internet telephony software and service. The company's narrowband iLBC codec is widely used, and its newer wideband codecs power HD voice solutions.

A few years back the company broadened its focus to address video, and subsequently changed its name to Global IP Solutions.

A recent article indicated this acquisition of GIPS is about Google competing with Skype. However, just how this purchase helps the competition with Skype is unclear, other than removing some of the competitive technology in the market.

This purchase, and Google's move to acquire codec company On2, remind me of Google's history in the search market. For many years, VCs and many in the media espoused the virtue of building Web portals, while search was relegated to the backseat. It was during these years that Yahoo decided to license search technology from Google while it focused on building out its portal strategy via e-mail, horoscopes, a financial page, etc. In the end, the company with the best search technology won the day.

Collaboration over IP is where the market is heading and as it continues, voice and video technology that optimizes compression regardless of network quality is invaluable. In fact, to compete in the information technology space, collaboration has to be something you are great at. IBM has solutions in this space, as do Microsoft and Cisco. This acquisition actually puts Google in the position of supplying codecs to its competition.

Although the GIPS deal is cheap by tech M&A standards at just over $62 million, I can't see Google picking up the company to make the competition come crawling to them. Then again, GIPS has access to much proprietary technology, which powers some of the leading collaboration players in the market.

And one has to imagine the On2 deal has taught the search leader the value of owning codecs on which major players in the market rely. Remember that companies making codecs often have solid patent portfolios as well, and these assets are useful when getting sued, as you can wield them as a weapon in patent countersuits. Anyone remember the Apple suit in which HTC and Google are embroiled? I think there is some intellectual property here that Google can use to its advantage.

The final reason for this acquisition is simply to help Google in its conquest to maximize its chances in the video over IP space – and by this I mean TV and YouTube on all mobile devices. Advertising on video potentially could be the biggest reason for this deal. The launch of the iPad and the coming wave of Android-based tablets likely have shown the company how big a market entertainment on these devices will be.

If I had to bet, I would say Google execs are walking around the company campus with Android-powered tablets with built-in videoconferencing 24x7. Moreover, they are thrilled with what they see, and they feel productivity is skyrocketing. As a result, they realize the value of companies making codecs to enable these devices will skyrocket.

This Google acquisition of GIPS not only allows the company to pick up an asset that will increase in value, it can be used to help defend hardware platforms that use Android and run the risk of being sued by Nokia, Apple and others. At the end of the day, having healthy operating system competition is crucial for Google to have a viable business. A single dominant player could shun Google's services for an alternative, and from Apple's perspective Google is probably a notch down on the friendship meter from Adobe at the moment.

Apparently when it comes to enabling technology, Google's new mantra is it's better to be needed than liked. IT

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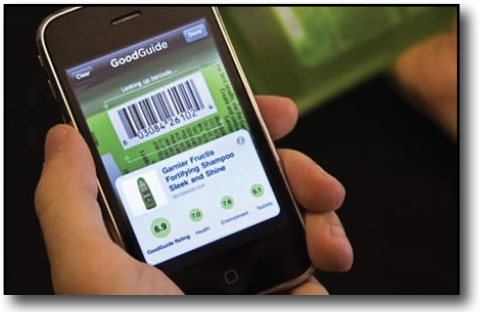

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By Paula Bernier

What's Next in Retail:
Barcodes Get a Makeover

The barcode is making a comeback. It never went away, of course. It's just that recently a lot of pretty important folks have become very excited about the barcode and the new opportunities that can be created when it's married with social networking and mobile technologies.

Indeed, a company called Stickybits offers a solution that allows people to attach barcodes to objects, which creates links between those items and online information.

In mid May Stickybits announced that it has raised $1.6 million in funding.

The dough comes from new investors First Round Capital and Lower Case Capital, as well as existing investors Mitch Kapor and Polaris Venture Partners. Chris Sacca, who was involved with many of the key partnerships early on at Google and was an angel investor in Twitter, also participated in the round. Additionally, the company brought Howard Morgan of First Round onto its board. According to Stickybits, Morgan "has been a Rabbi to entrepreneurs and has better pattern recognition than any early stage investor we know."

Stickybits aims to capitalize on the growing prevalence of smartphones that can read barcodes with built-in cameras and combine that with social networking and location-based services. The company, which launched this spring in Austin, Texas, sells stickers with barcodes on them. Folks can put those stickers on virtually any object and use the company's smartphone application to record a message, which is uploaded to the barcode. Then, when people scan the barcode with a smartphone, they get the message.

These barcode stickers can be applied to anything from a business card to a consumer product.

According to the Stickybits blog: "Since launching in March, we have seen some awesome uses of Stickybits, from a scavenger hunt through London to a photo-tagged family trip to Disney World. Much to our surprise, people are even scanning products in grocery stores and creating social networks around brands. Through all these examples, people are using the Stickybits platform to tell stories about objects and make things more interesting."

Scanbuy is another company offering similar capabilities. As TMCnet, the online site operated by INTERNET TELEPHONY's parent, TMC, recently reported, Heineken recently adopted Scanbuy's ScanLife application to allow users, with the help of their phones, to scan barcodes on Heineken products to download free applications for the iPhone, BlackBerry or Android-based devices.

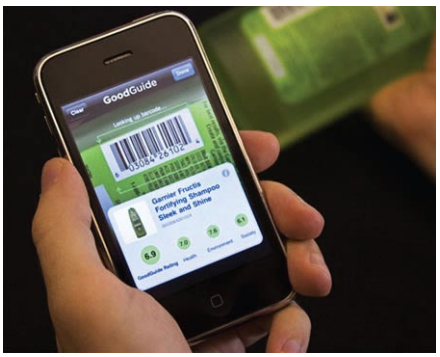
According to Verizon Business, 35 percent of all smartphone users would like to receive coupons on their mobiles, while 29 percent would like to be able to employ the devices to scan barcodes to get more information on a product.

Verizon Business explains that there currently are two types of barcodes: 1-D and 2-D.

The 1-D version, which is used on virtually every product sold worldwide, can be used to identify the product for price and comparison shopping applications loaded on a phone.

"Retailers and even product suppliers are typically not big fans of consumer facing 1-D barcode applications, as the material is pushed out one way to the consumer without the possibility of directly sweetening the pot with a promotion or coupon," according to Verizon Business.

2-D barcodes, however, allow retailers and suppliers to identify the product and govern the service that the mobile phone uses, the company explains. That provides the ability for the seller to offer targeted promotions and coupons when a consumer scans a product, the company explains.



Of course, this is just another version of mobile advertising, an area that's been hot for some time, as communications companies, advertising firms and retailers move to make hay from the fact that most folks carry their mobile devices wherever they go and that location-based technologies enable them to reach those consumers wherever they are.

"Mobile advertising has enormous potential as a marketing medium, and while this industry is still in the early stages of development, AdMob has already made exceptional progress in a very short time," Susan Wojcicki, vice president of product management at Google, said in November when the search giant announced its intention to buy the mobile advertising outfit for $750 million. "AdMob is the quintessential Silicon Valley startup – generating impressive year on year revenue growth – and we're excited to welcome this talented team to Google."

Nikesh Arora, Google president of global sales, said at the recent International Advertising Association conference in Russia: "The advent of the iPhone, the Android devices and the BlackBerry have finally given people reason in the western world (to) start using the mobile data. And as you see that go up, you begin to see the relevance of advertising in those applications."

Ken Lee, director of product marketing for the Oracle Communications Service Delivery product family, says CMOs at service providers are interested not only in monetizing applications, but also in delivering advertising over mobile connections. IT

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By Paula Bernier

Payment via Mobile Device?

There's An App for That

Virtually everybody carries a mobile phone these days. Wouldn't it be nice if we could lighten our loads by using these wireless devices as virtual wallets to make payments at various retail locations?

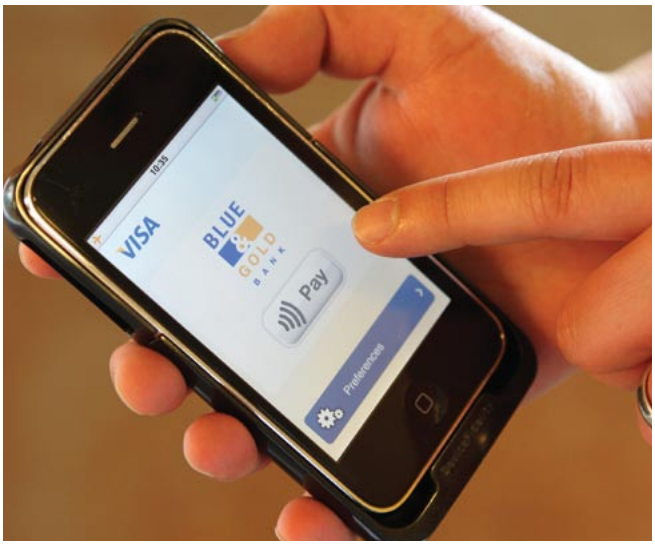
Right, we've all by now heard about the prospects of mobile payments. But despite years of talk, this concept has yet to materialize in a significant way in the U.S. That may soon change, however, given new momentum in this space as important companies like Apple, eBay, MasterCard and Visa have announced, or delivered, tools to help enable new initiatives on this front.

For example, in mid May, DeviceFidelity Inc. made available its In2Pay solution for the iPhone. The application lets iPhone users buy stuff by waving a specially-equipped iPhone in front of a contactless payment terminal.

The solution, which involves placing the DeviceFidelity product into a special protective iPhone case, was expected to be in trials starting last quarter. Visa has collaborated with DeviceFidelity to combine its own contactless payment technology, known as Visa payWave, with the solution.

"Visa is working to bring the security and convenience of digital currency to mobile users around the world," says Dave Wentker, head of mobile contactless payments at Visa. "Our collaboration with DeviceFidelity can extend the reach of Visa mobile payments to millions of iPhone users."

Meanwhile, PayPal is expanding its horizons in a big way – and you won't necessary have to be on your computer to use the payment service. That's the word from John Donahoe, CEO of eBay Inc., which owns PayPal, who discusses mobile payments and related matters in a recent report.



As part of the strategy, PayPal is making it easier for software developers to create applications using its payment engine. About 30,000 developers are already working on such apps.

The interest around PayPal shouldn't come as any surprise, given it claims 84 million active accounts around the globe. Neither should it come as a surprise that there's already an iPhone app in this category.

PayPal recently released a new Send Money application for the iPhone. Version 2.0 of the PayPal Send Money app offers users secure mobile access to their money and other helpful features. Using Bump, users can put two iPhones together to transfer funds quickly between their PayPal accounts. This, for example, could enable two users to split the cost of a shared meal. Collect Money is a way to allow people to collect funds from a group, such as taking up a collection to buy a teacher an end-of-the-school-year thank you gift.

"Today, you leave the house with three critical things: your phone, your wallet and your keys," says Osama Bedier, PayPal's vice president of platform and emerging technology. "PayPal Send Money lets consumers access their wallets through their phones. Because with PayPal, the wallet lives in the cloud – the mobile phone is just one device customers can use to access it."

Meanwhile, another big name in the payments industry, MasterCard, in late May issued an invitation to developers to use its payment technology in third-party applications and on cellular phones.

"You're seeing quite different ways people are paying for digital goods, but you haven't really seen that translate into physical goods," Josh Peirez, MasterCard's chief innovation officer, says. "It's still really hard to buy a physical item from your phone."

In an effort to change that MasterCard is now offering an open platform that allows developers to embed its payment capabilities into various applications, which could run the gamut from straight e-commerce apps, to social networking sites, to virtual games. This is an improvement over MasterCard's previous set up, which required developers to get a merchant agreement, set up the payment part and then require the end user to resubmit his or her payment information with each transaction, according to a recent report on the matter.

While the idea of using a mobile device to make payments at retail institutions and to do banking remains a new idea here in the U.S. (at least to those outside the communications and payment industries), where it has yet to see widespread acceptance, it's much more popular abroad. About 8.5 million people in the Philippines and 4.5 million in South Africa use mobile banking today. And that's expected to grow over time.

"One billion consumers in the world have a mobile phone but no access to a bank account," says Gavin Krugel, director of mobile banking strategy at GSM Association. IT

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By Gary M. Lee

Used Car Report Outfit CARFAX Updates Web Site with Crescendo ADCs

The economy has tightened the belts of car shoppers, and many are opting for pre-owned vehicles over new models to save money. To make sure they're getting a reliable vehicle, many used car buyers turn to CARFAX for a Vehicle History Report before making their final purchase decisions.

CARFAX is used by millions of buyers and sellers each year to research used cars and light trucks. The company offers one of the top five Web sites that consumers rely upon for vehicle information. With just the 17-character vehicle identification number, used car buyers and sellers have access to all the information reported to CARFAX for a specific car or light truck with a model year 1981 or later.

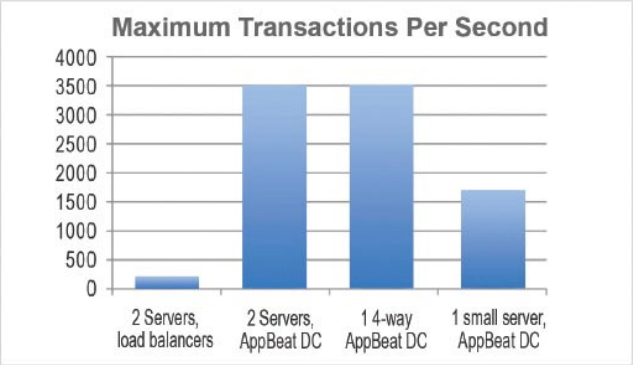
Last year, Carfax.com logged nearly 80 million visits for access to its database of more than seven billion records. Meanwhile, its data centers underwent server installations and refreshes about a dozen times a day.

With Web site traffic growing at a rapid pace, alongside the demand for used cars and consumers' tendency to turn to the Web for nearly all of their needs, managing traffic and reducing network connection has become a mission-critical priority. Like so many other information services, performance, scalability and reliability are essential to our success.

As demand for used vehicle information rapidly increases, so do the number of visitors to Carfax.com. To better manage the load and ensure fast, reliable delivery of vehicle data, CARFAX recently upgraded from traditional load balancing technology to next-generation application delivery controllers to accelerate performance, cut data center costs and boost capacity over existing infrastructure.

With the traditional load balancers used to distribute load among the many servers in each data center nearing the end of their useful life, we began looking for a new way to accelerate and streamline our overall Web application infrastructure. We had simply outgrown the old technology that we felt could no longer effectively support the 50- to 100-million annual visits and close to a dozen data center installations and upgrades we handle each day.

We found the solution to meet our needs in the form of next-generation application delivery controllers. An ADC not only balances load between different servers and data centers, but it also offloads processes from servers, including TCP management and SSL encryption and decryption. It became clear that replacing the outdated load balancers with advanced ADCs could dramatically accelerate data delivery performance, reduce our data center costs and boost available capacity in the existing infrastructure.



In our quest, we evaluated several ADCs for use in our infrastructure based on a specific set of criteria:

Performance and scalability
The chosen solution must not only ensure consistent performance and availability of our system, but also handle continued traffic growth with the same consistency and reliability.

Intuitive user interface
The ADC must be both easy to deploy and reconfigure to support our constantly evolving demand and data center transitions.

Reliable load balancing across data centers
We wanted to not only balance load between data centers, but also be able to take sites and applications offline for maintenance or upgrades without dropping users.

Support
In addition to a great solution, we wanted a partner with the capacity and desire to grow with us over the long term.

Affordability
Budget concerns dictated that the solution must be cost effective and deliver an adequate and relatively quick return on investment, as well as demonstrate the ability to fulfill our needs well into the future.

CARFAX tested several application delivery controllers. Ultimately we chose a somewhat unconventional approach, opting for a smaller, dedicated vendor over big label brands like IBM and Cisco. AppBeat DC from startup Crescendo Networks outperformed other solutions in a series of tests designed to demonstrate performance and reliability.

Crescendo created a test bed with two different servers (one quad processor, one single processor) handling the most traveled URLs on the Carfax.com site and used a load generator to simulate DSL connections to the site. The tests were designed to evaluate both performance under load and reliability when one server is dropped. The servers were not optimized or tuned in any way for the tests.

8x8, Inc.

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Small business VoIP adoption is growing, largely because of the cost benefits, but the fact is that hosted VoIP services for small business, like 8x8's Virtual Office, provide much more than cost savings. The greater versatility of hosted VoIP system allows businesses to customize their telecommunications packages to meet their unique needs, but without requiring large up-front expenditures for equipment,installation, maintenance, or IT staff. For the latest news and information on VoIP services specifically designed for the small business market, visit the Small Business VoIP community on TMCnet, sponsored by 8x8. 8x8 Virtual Office is an affordable, robust and easy-to-manage phone solution with all the premium PBX features and functionality of a traditional telecom system.

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As a baseline, we tested performance of the two servers using an existing load balancer. The two servers together could handle 200 transactions per second before both servers began to fail.

Replacing the load balancer with Crescendo's AppBeat DC, the two servers together handled 3,500 transactions per second — the maximum throughput of the load generator used — and ran at this rate for 45 minutes without any failed transactions. All the while, page load times were 20 percent faster than with the previous load balancer. (See chart on Page 10.)

To test reliability, the team pulled the plug on each of the servers under load. With the small server unplugged, the larger, four-way server handled the entire 3,500 transactions per second with 250mbps of traffic with zero failures. Even more impressive, when the larger server was unplugged, the small server alone managed 1,700 transactions per second without failure — better than eight times more than the baseline performance of both servers with a load balancer. In our tests, only AppBeat DC was able to provide this level of performance.

Crescendo Networks outperformed other ADC solutions because of its specialized hardware platform and the unique manner in which it offloads and manages TCP connections for the server. AppBeat DC deployed on our network maintains the highest TCP connection ratio possible and shields our servers from the effects of heavy load.

Crescendo also impressed on other counts, including ease of use and cost, and it backed up its high performance solution with dedicated, expert support. When it came down to the final choice, Crescendo had the most complete package.

The Crescendo team created an application delivery product specifically for our environment. It eliminates the need to add more servers to handle demand and provides peace of mind without requiring our engineers to constantly monitor servers. We're ensuring fast and reliable access to vehicle history information that our customers expect. IT

Gary M. Lee is CTO of CARFAX (www.carfax.com).

Coke Taps into Personalization Trend with Freestyle Beverage Platform

By Paula Bernier

Coca-Cola is tapping into the hot trends of self-service and personalization with a new product and brand it calls Coca-Cola Freestyle. Freestyle is a proprietary, self-service fountain dispenser entering market testing this summer.

According to the company, the touch-screen operated fountains, which have been in development for nearly four years, will be able to dispense more than 100 brands, including different varieties of waters, juices, teas and sparkling beverages that have never been sold in the United States. A report in The Wall Street Journal also says that customers will be able to create their own drinks using Freestyle.

"Coca-Cola Freestyle brings to life the refreshingly positive outlook that has always been associated with Coca-Cola," says Chandra Stephens-Albright, senior director of marketing and business development for the brand. "It brings back the magic of the fountain of the past, re-imagines it for the future and then takes it a step farther by celebrating the idea that consumers can truly have their say at the fountain -- with choices tailored completely for them."

Pilots are planned for select quick-serve restaurants in Orange County, Calif., and Atlanta this summer. A wider introduction is expected early next year.

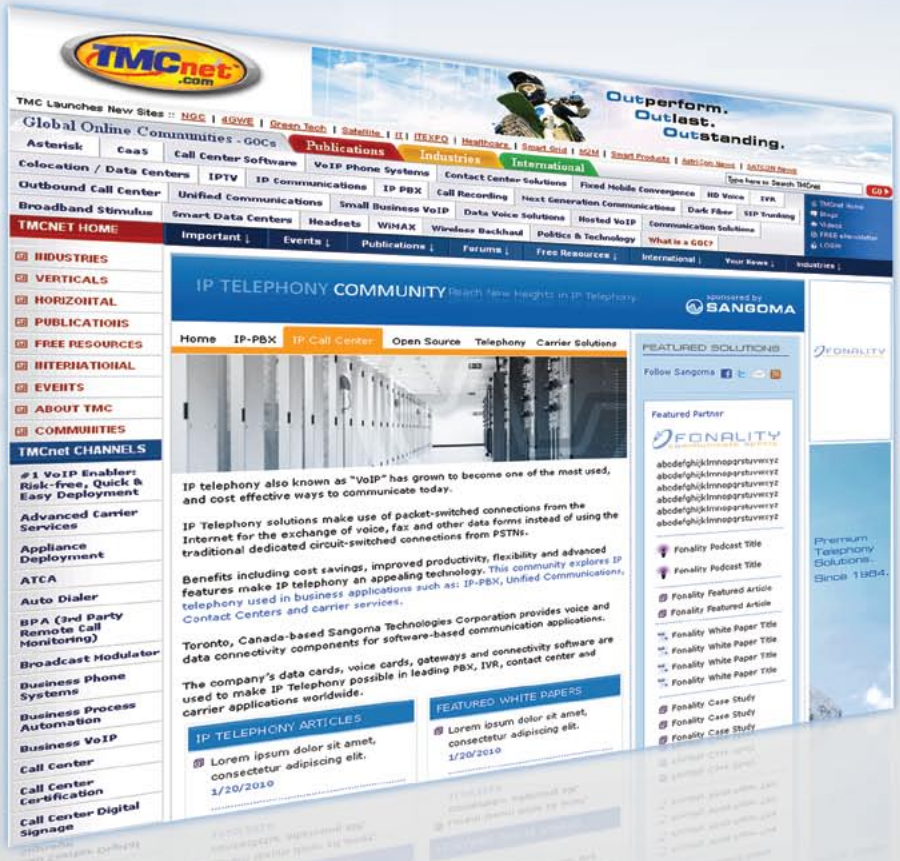
Personalization came back into vogue when, with the spread of the World Wide Web and e-commerce, companies such as Amazon.com opened our eyes to what a personalized shopping experience could be like.

Of course, this idea of personalization is not really new, but rather a back-to-the-future-type concept. In the days before malls and big box stores, shops would cater to the individual needs of customers. Amazon brought that back by remembering our past purchases and offering suggestions on what we might try next.

Now Coca-Cola is taking this trend in a new direction by allowing customers a personal touch related to our beverage choices. IT

Announcing The IP Telephony Community

On TMCnet



IP Telephony has grown in the recent years to become one of the most prevalent ways to communicate. Benefits including cost savings, improved productivity, flexibility and advanced integration capabilities make IP telephony an absolute must!

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Integrator's Corner

By Kevin Gift & Cliff McGlamry

Retail Customer Upgrades Telephony System for Numerous Benefits

While some organizations are leery of the upfront cost of upgrading their telephony systems, it's almost always a worthwhile transition that brings multiple benefits to a business, including a lower total cost of ownership.

We recently worked with an East Coast retailer that used a traditional large PBX vendor telephony system at its company headquarters, which included about 700 employees. The system was fine, but management was building a new headquarters and wanted to deploy a more comprehensive and innovative system to encompass all corporate employees across multiple office and distribution center locations. The company also needed to improve its help desk call handling process and reduce its number of vendors.

After studying the company's requirements, we recommended and worked with the customer to implement a telephony refresh, which included new IP telephony equipment and replacement of the old system. The new systems permitted voicemail integration with Lotus Notes, offered unified messaging, in-house collaborative voice/Web/videoconferencing capabilities and wireless phones.

We also installed a new small contact center application and wrote custom scripts to maintain needed functionality from the old system, while providing new features to optimize call handling and improve efficiency for agents who worked at the highest grossing retail locations.

Due to customer timelines, we implemented the new systems over two years. The first users were in a brand new distribution facility, and the new telephony system enabled us to provide additional features at a much lower cost than possible with their TDM system. We then implemented upgrades for all IPT equipment to the entire corporation later the next year.

In transitioning from TDM to IP telephony technology, the customer consolidated its voice vendors. We also supplied formal training on the new systems to the customer's technology staff and lead telephony engineers. This increased confidence for handling any on-going systems issues, and reduced maintenance support costs, which was a significant driver for the customer's conversion.

In the end, the customer has new systems that provide higher functionality, better integration with its other technology systems (data network equipment, corporate directories, corporate e-mail, video endpoints), and lower overall on-going maintenance costs. It also has acquired additional licensing for other advanced features (presence status, PDA integration), which it will roll out to its users next year. IT

Kevin Gift and Cliff McGlamry are master consultants at Forsythe Solutions Group (www.forsythe.com).

UC Unplugged

By Mike Sheridan

Looking Back on Customers' Unified Communications Journeys

In talking about unified communications, I often explain to business evaluators that unified communications is a journey, not a destination. Here are three different companies that have benefited from unified communications in similar, yet subtly different ways.

Global Management Firm

As a consulting company, the bulk of employees spend most of their time at client sites. As a result, mobility costs for this company were extremely high. Also, it was sometimes difficult to get cell phone signals, and it was challenging for consultants to collaborate with colleagues using just a mobile phone. This company realized it needed a more cost-effective way to manage those costs, while at the same time increasing flexibility. After deciding that a unified communications deployment would be the right path, the company immediately saw the cost advantages by enabling consultants to make VoIP-based calls.

A Regional Airport

This airport had a dispersed workforce spread across multiple terminals, the traffic control tower, and various hangers, creating communication challenges that can be critical in this industry. Following the rollout of unified communications, user adoption was quick and enthusiastic. Everyday tasks that had previously required multiple trips back and forth across the company's property are now seamless with unified communications. For instance, the engineers in charge of the terminal drawings can now share those through their desktops, when before they had to print the drawings and hand deliver them for legal discussion, followed by mark-ups and then back-and-forth conversation. This has greatly improved communications and increased productivity.

Large Military Contractor

Faced with an aging PBX telephony infrastructure, this company was in need of a replacement solution that would allow it to work better together and be more efficient, while keeping security at the forefront. It also needed to reduce travel and communication costs across a 586-square-mile production complex. Following deployment the company saw a sharp reduction on travel costs, as well as an increase in collaboration and productivity. There are a large number of application developers within this organization, and they spend a lot of time going back and forth to make updates or solve problems. Conferencing with IM sessions and desktop sharing has allowed developers to share information securely with multiple employees to get the job done. IT

Mike Sheridan is executive vice president of worldwide sales with Aspect (www.aspect.com).

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By Tom Skidmore

Remember Transaction Taxes in Business Case for Data Centers

Business cases for building data centers with the intent to begin offering revenue-generating services will normally include items such as income taxes, energy and labor expenses[1]. The impact from transaction taxes for such a service may not be as obvious, but this should also be included in a business case.

One of the main differences between transaction taxes or property and income tax is that transaction taxes apply when an exchange is made regardless of whether the seller made a profit. Determination of applicable transaction taxes will depend on several factors:

1. Is the offering considered a regulated service or general item of tangible personal property?
2. Are you considering tax liability from the perspective of the company offering the service (seller) or purchasing the service (buyer)?
3. Do both parties that participate in the exchange have a physical presence in the same state?
4. How will the buyer access the service?

Let's review some possible scenarios for each of these factors.

First, the difference between telecom and general TPP is that telecom applies if the FCC declares such a service is under governance of the FCC. (This is what many people feared would be the fallout from the appeals court decision in favor of Comcast in a dispute with the FCC for imposing involuntary bandwidth restrictions against BitTorrent.) A state or local telecom tax may also apply if the jurisdiction rules that such tax is applicable. For example, states differ on whether VoIP is a telecom service. Some states require all services to be taxed unless specifically exempt. Other states take the opposite approach and list only the services that will be taxed.

Second, there are some taxes that can only be assessed to the buyer, while others only apply to the seller. A data center business case needs to include taxes for the seller in its financial analysis. These may include sales tax, gross receipts tax, or business and occupation taxes that are clearly the seller's liability and cannot be imposed on the end user. Additionally, it may be more likely for a jurisdiction to pursue a seller if there is a substantial amount of money at risk and a means to discover the seller. For example, one means of discovery is viewing a Web site that can be used to describe the seller's services and locations for operation centers.

Third, if the seller and buyer are located in different states, then the question of who is responsible for the resulting taxes needs to be considered by determining nexus. (Nexus is lawyer-speak for significant ownership of property or facilities within a jurisdiction's boundaries. Each state has its own interpretation for what is required to be considered significant.) Nexus is the criterion used in deciding which jurisdiction has the right to assess taxes. Some states may be limited to assessing taxes only on the buyer when the seller has nexus in a different state.

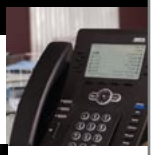
Taxes may only be a small piece of the business case, but they need to be treated with respect. Expenses incurred for audits, penalties, and interest can be greater than the amount originally owed if taxes are mishandled.

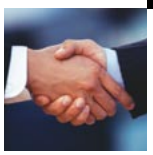
Fourth, another factor to be considered is the transport manner by which the service is provided: public Internet or private line. If a service is available anywhere in the United States by means of public Internet, it probably will not be considered a telecom service. Alternatively, if the customer is required to purchase a private line for accessing the service, then a telecom component may apply. However, with the FCC attempting to exercise the right to regulate broadband services, there may be new rules created in the near future for services offered via public Internet.

Taxes may only be a small piece of the business case, but they need to be treated with respect. Expenses incurred for audits, penalties, and interest can be greater than the amount originally owed if taxes are mishandled. IT

[1] "Yahoo Opens New Nebraska Data Center", John Rath, www.datacenterknowledge.com, Feb. 18, 2010.

Tom Skidmore is regional sales director of BillSoft Inc. (www.billsoft.com).





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Virtualization Reality

By Alan Murphy

Cloud Infrastructure is Driving Data Center Evolution

The core idea behind IT agility is being able to provision IT resources and services to match the business need, rather than the other way around where the business is dictated by IT resources – new OS upgrades, expanding the core network, etc. More and more we're seeing business need driving IT to thinking outside – and beyond – the traditional data center: If the business needs new services that can't be met within the more static traditional data center, maybe the solution is to move beyond the confines of the traditional data center, hence the drive toward the cloud.

2009 was very much the year of the cloud, at least the year we talked about how the cloud would change the enterprise data center. We're half way through 2010, and this year is turning out to be the year we're actually using the cloud. This quick adoption rate is something we're not used to in IT; major data center and infrastructure trends typically take a few years to gain traction before mass adoption. The cloud is different, however. We're seeing companies moving services to the cloud in large numbers, especially where new infrastructure is an issue or new business services and tools are needed.

One of the primary drivers of cloud computing – and what has taken the cloud from early adopters to mass scale deployment in such a tremendously short time frame – is the ability to provision new business services as needed without investing in new infrastructure. Designing and deploying new infrastructure isn't often needed when rolling out a new business service. In fact the goal is to minimize disruptions to the infrastructure as much as possible. For new services that don't map to existing architecture, however, new infrastructure needs to be deployed first, drastically increasing the time and complexity required to spin up that new business service.

Early cloud adopters quickly learned that the cloud can provide new infrastructure as-is without a major data center rebuild (I realize this is a very simplistic way of looking at the various as-a-service solutions that make up the cloud.), which is a big reason why cloud solutions were first deployed by enterprise business groups going around IT. As we see cloud adoption rates continue to grow, it's safe to say that we're moving past the hype. Cloud computing is driving IT outside the data center and fundamentally altering the enterprise data center landscape that's stood for the past 10 to 15 years. IT

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

Next Wave Redux

By Brough Turner

Early Majority and Laggards in SMB Infrastructure

Recently I've had occasion to talk with a number of small firms that provide local IT support for small and medium businesses. The disparities in approach are striking, with implications for everyone selling equipment or services for SMBs.

Take basic Internet connectivity at firms with 20 to 100 employees. By now, early adopters and the early majority have heard of dual WAN connections and realize that two different low-cost services are much more reliable (and faster and less costly) than one supposedly gold-plated service provider. Stand-alone dual WAN routers cost less than $200, and many firewall appliances include dual WAN support. Yet a substantial number of firms continue to rely on one Internet service. Some have moved to a wireless ISP or other competitive provider, but many are buying a single Internet connection via T1 or T1-like services. No wonder many employees have a better Internet experience at home than they do at work.

The cost and reliability of business Internet connections is a major motivation for moving Web sites and externally focused IT applications into the cloud or at least relocating them to on-net data centers. But, again, the disparities in the community are striking. The issue, of course: IT is a support function, not the central focus of the business. IT gets attention when something is broken, but not otherwise. So how do we accelerate adoption of our new products and services?

Some SMBs have one partner or employee who is the in-house IT expert and thus they may never, or only occasionally, pay an outside consultant for IT services. But as the Internet becomes critical for every kind of business, the market for IT consultants is growing. Some are called in only when there is a major problem; others provide on-going maintenance as well as responding to emergencies. In either case, these folks can be key to driving adoption of new products and services, but education is critical.

Not surprisingly, much of the business is reactive, so something as simple as a white paper on dual WAN services can be critical in getting the word out and thus driving adoption of dual WAN routers or new Internet services.

Once the early majority adopts an IT product or service, complexity issues are under control and return on investment is understood. Education is the big bottleneck, and increasingly this means educating IT consultants. IT

Brough Turner is CTO of BigBroadband.net (www.bigbroadband.net).

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Packet Voice Over Wireless

By Michael Stanford

Wi-Fi Goes Mainstream in Phones

The number of Wi-Fi certifications for phones has been better than doubling year-on-year for the past eight quarters. Several factors have been driving this.

First, the power efficiency of the chips is no longer an issue. Second, the carriers have become comfortable with Wi-Fi. The iPhone demonstrated to carriers that Wi-Fi doesn't threaten revenues, and that it can reduce network load. Another carrier concern is support, and there has been a change there, too. There is a teeming variety of access points, and to design a client chip that interoperates smoothly with all of them is technically challenging. The three companies that supply most of the access point chipsets have an advantage. These companies, Atheros, Broadcom and Marvell, now all ship client chips appropriate for use in phones. Again, the iPhone proved the concept. With a Marvell chip in the first model and a Broadcom chip in the current model, Wi-Fi has always been easy to use on the iPhone.

2010 has seen a relative increase in Wi-Fi feature phones as opposed to smartphones. Historically, the ratio of smartphones to feature phones with Wi-Fi has been about 60/40. In the first half of 2010 that ratio flipped. This is because the justifications for Wi-Fi in phones have changed. Wi-Fi used to be for Web browsing, which favors smartphones over feature phones. Recently the industry has recognized that Wi-Fi is useful for streaming photos, music and video from phones to PCs and other home electronics, so feature phones need it, too.

So the Wi-Fi phone market is maturing from a volume point of view. Next come the technical advances: 802.11n has arrived. In March, April and May, respectively, 7 percent, 25 percent and 38 percent of Wi-Fi phone certifications were for 802.11n. This was driven mainly by Samsung, which accounted for more than 80 percent of those certifications, but Acer, LG, Motorola, Nokia and RIM have also certified phones for 802.11n. By the end of 2010 most new Wi-Fi phones will support 802.11n. Further out is 5GHz operation, which currently seems to be languishing. Only six phones have ever been certified for it, none yet in 2010. IT

Michael Stanford has been an entrepreneur and strategist in VoIP for more than a decade. (Visit his blog at www.wirevolution.com.)

Enterprise View

By Max Schroeder

Follow the Money

Statistically, opportunities for upgrading existing infrastructures are much greater than start-up or green-field sales. The revenue per transaction will generally be lower than a green-field sale but the total number of transactions will be much higher. This course is also an excellent customer retention strategy. Clients like to know their resellers are continually looking for ways to make their operations more productive. Even if the customers do not act immediately on the advice, they will still appreciate the reseller's attention.

From a statistical perspective, targeting Microsoft customers is also an excellent course of action. This is one of those unusual situations where a limited selection of compatible products has been deployed across an extensive installed base. Therefore, any skills acquired in the process of introducing customers to add-on solutions or enhancements can be leveraged repeatedly. Remember the adage from the Watergate investigation – "Follow The Money" ¬– and Microsoft has certainly been very successful financially.

The economy has been forcing more businesses to economize yet still operate at peak levels. More organizations are turning to unified communications to increase employee productivity. Fortunately, Microsoft is also focusing on this market with some new product releases. UC can improve access to information and/or speed up communications, but some recent Microsoft product versions have also limited or modified some legacy features.

Case in point, Exchange 2010 UM no longer handles the in-bound fax negotiation supported in 2007 UM. To quote the Microsoft Exchange Team, "We have determined that it was best for specialized partners with deep fax expertise to provide the comprehensive fax capability for Exchange Server 2010. We have therefore established partnerships with several fax vendors to ensure a seamless fax experience…." This provides resellers with a unique opportunity to introduce customers to new Microsoft products plus Microsoft certified third-party applications. Additionally, some of these same vendors also integrate with communications solutions from Avaya, Cisco, ShoreTel and others plus service providers like etherFAX provide integration with Exchange 2010 UM.

For more information use the term Exchange 2010 UM Fax on the TMC site or Internet search engines. IT

Max Schroeder is senior vice president of FaxCore Inc. (www.faxcore.com).

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Ask the SIP Trunk Expert

By Steven Johnson

The Role of an E-SBC

Enterprise session border controllers sit at the edge of the network to provide control over the SIP traffic. Traditionally they were seen as just providing firewalling protection – the security – for SIP-based voice networks. Today's E-SBCs provide that security, which is absolutely a critical function, and have evolved to serve as a crucial element in enabling SIP deployments.

An E-SBC will:

• **normalize the SIP signaling** so that the IP PBX at the customer site and the service provider's network are fully compatible. Additionally, normalization of the SIP signaling allows service providers to support more IP PBXs, or those IP PBXs that are not yet certified by the ITSP to expand its business without the need for extensive interoperability certification with each IP PBX.

• **resolve NAT traversal issues** to enable the adoption of SIP, SIP trunking and full unified communications by securely permitting SIP signaling and related media to traverse the firewall. Without this function, most companies will have one-way audio only.

• **provide security through deep packet inspection**, which can be effective against buffer overflow attacks, denial of service attacks, sophisticated intrusions, and a small percentage of worms that fit within a single packet

• **offer control through authentication** Many service providers require authentication of the user with their network. Some IP PBXs do not support this function.

• **enable disaster recovery** In the event a customer's main office goes down, the E-SBC can reroute SIP traffic to a secondary office to keep business up and running.

• **deliver quality of service** by ensuring that mission-critical voice calls have priority over other Internet traffic, and that call quality remains high

• **provide encryption** for maximum privacy even over the public Internet

• **offer intrusion detection/prevention**, which enables the E-SBC to detect DoS attacks based on SIP, and to block malicious SIP signaling packets designed to attack certain SIP phones, servers or other devices on the enterprise LAN. This secures the enterprise network as the E-SBC handles the attacks while the servers and other SIP devices in the network can still be used. IT

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

E911 Watch

By Nick Maier

Don't Forget Smartphones When Managing Enterprise E911

It's becoming increasingly apparent that the smartphone will inherit the crown as the central voice and data client platform for unified communications. Given that smartphones are highly mobile and can be used on a variety of networks (cellular, Wi-Fi, etc.), IT and telecom managers need to account for the fact that many people within their enterprise will be dialing 911 from a smartphone.

Smartphones bring E911 squarely into the realm of location-based services because of the inherent location determination capability of the smartphone itself. Most smartphones have a GPS chip that can determine the geo-location of the phone, and the chip is leveraged to provide location-based services to the user.

Here are three scenarios that must be factored into your enterprise E911 plan:

If a smart phone is on the cellular network and used to dial 911, the call is going to be routed by the cellular provider to an emergency call center based upon either the location of the cell tower that the phone is connected to or a triangulated location based on multiple cell towers.

If a smartphone is on a corporate Wi-Fi network and connected to the enterprise voice platform, its location can be tracked in real time as it moves throughout the Wi-Fi network. If the smartphone is used to dial 911, the voice platform can send the call to a routing service in the cloud that routes the emergency call based on the actual location of the caller.

If a smartphone is on an external Wi-Fi network, a 911 call can still be sent through the enterprise voice platform to your E911 service in the cloud for routing to the 911 center that services the location of the caller. But, the smartphone must be running a voice client that connects it to the enterprise voice platform.

A new breed of applications running on the smartphone can capture the GPS or triangulated Wi-Fi coordinates of a smartphone when it is used to dial 911. This location data can be sent to campus police to notify them of a 911 call in -progress and deliver a Google map of the location of the caller. In addition to speeding local emergency response, these applications also enable the personalization of E911, giving users the ability to choose who they want to be automatically notified in the event of a 911 call. IT

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

Visit the **Voice Quality** Community

On TMCnet

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

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

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- **Track breaking news about voice quality in VoIP appliances and services.**
- **Read white papers relating to IP telephony.**
- **Get access to case studies detailing successful deployments of Ooma's products.**

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http://voice-quality.tmcnet.com/

By Hunter Newby

The Swinging Slingbox

Forget voice, it is part of video. Forget having to be in front of your TV to watch video. Now there is mobile broadband and because of that there are Slingbox and SlingPlayer Mobile, which deliver your favorite shows and content, in HD, over the Internet.

Here are a few simple observations about what this is and what it will do to what we know.

First, with the advent of the DVR, time shifting has become a reality. If life is but a dream, then we now have control over what happens and when. Reality may very well be a place and time, or a place in time and, if it is the latter, then we have the ability to create our own moment and be in it – virtually. The Slingbox and SlingPlayer Mobile take this concept to a new level, dimension, universe, etc.

We have the ability to create our own moment and be in it – virtually. The Slingbox and SlingPlayer Mobile take this concept to a new level, dimension, universe, etc.

Second, the concept of having to view anything at home where your big screen HDTV is mounted to a wall becomes of less importance, or totally irrelevant, if your HD monitor, or device will do for you wherever you are. Presumably, given that mobile is booming, people prefer the benefit of mobility and they will accept just about anything – even frequently dropped calls – for the ability to have a media session (voice call, video chat, whatever) while they are wherever they are.

Third, if you can watch whatever is on your home DVR, or better yet live HDTV on your iPad, or whatever wherever you are, then the broadcasting companies have lost total control of advertising as it relates to geography. This has huge implications. One example is sports blackouts. Often local TV stations will not carry a local team game to force local people to go to the game to see it, or a particular company owns the rights to the broadcasting and will not allow it to be shown in that area. The entire concept of area is gone. Anyone with Wi-Fi or 3G can go to any bar and turn it in to a sports bar. They can watch their local team, or any team, and they can do so right where they are sitting – no need to strain to look at a TV hanging over the bar in the distance.

Fourth, as this really catches on what will happen to the underlying broadband networks? Not only is the HD video being sent to the home HDTVs and DVRs, it is now being sent back up and out the Internet connection, across the Internet (probably/hopefully as a direct IP peering link) to the mobile broadband provider's network and then to the end user's device. Wow! If you thought YouTube was groundbreaking, if you thought Hulu was revolutionizing video, this is going to cause havoc for network operators.

As history repeats itself, why then should this incredible technology be any different than, say, international wholesale voice? If it in fact follows in the same footsteps, then what will happen next is that there will be a Slingbox Video Bureau, sort of like an Arbinet, where users can register and then subscribe to the central body that has HD feeds from every network in the world as well as every movie ever made on DVR.

Today, the people living in New York that have FiOS can't view any New York Rangers ice hockey games because Cablevision owns Madison Square Garden and the MSG Network that broadcasts the games. That is not so good for Rangers fans, and it is what Cablevision uses to keep people from switching to Verizon. What if you had FiOS, but also the password for a friend's Slingbox that had Cablevision? You could watch the Rangers game in your house over your mobile broadband connection. That is the business of the Slingbox Video Bureau. It is technological arbitrage, just like international voice wholesalers. This is inevitable and unstoppable.

Separating out applications and their uses from the reality of the network and its ability to support the demand creates a chasm. The demand for such a service once it is understood and widely adopted instantly exceeds the ability to supply the users. There is just not enough 3G wireless coverage, let alone 4G. What will come of all of this is to be determined, but one thing is clear, at least from here on out: The applications will drive the demand and business case for physical, transport and transit layer networks instead of it being the other way around. Build it and they will come is yesterday's news – now it is "Build it, they are all waiting". IT

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

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By Peter Radizeski

So You Want to Build a Channel?

One of the most popular topics when speaking to service providers is sales compensation. The other is how to pay agents. It's about more than the number of points. Can you support a channel? The commission schedule gets the agent's attention, but a support structure will keep your agents producing for you (and not your competitors).

Agents require support – as much support as direct sales people.

Everyone selling for you needs to know the clear, concise value proposition for your service offering. Do you want to provide it, or do you want them to make it up? It's your brand.

It is helpful to agents if the carrier identifies the target marketplace – a few select verticals that would most benefit from your service offering and why that vertical would benefit. All too often it is left up to the agent to decide since everyone is a target. Unless you are selling water, in most cases everyone is not your market.

Collateral is a tool salespeople are familiar with. Buyers supposedly need bullet points. Me? I like providing a specific story that demonstrates how another similar business benefited from the service. Either way, some marketing materials will be needed. In addition, order forms will also be required.

Before the order forms are needed, the agent will need a method to obtain quotes. This method should be trackable for your organization (as a funnel) and for the agents. It should also back-end into the order process and the commission tracking system.

What? You don't have those systems?

Many companies do not have a defined sales order process (online or written). Something needs to be in place that can accept an order, offer status reports, and migrate the order to installation then billing.

Because of MasterStream, agents have become accustomed to being able to track orders and commissions. I have a couple of vendors who don't have a system in place to regularly send out commission checks or allow for me to see why the commissions vary every month. This is the skeleton of a sales system. Both indirect and direct sales teams need a support structure to sell effectively and with confidence. IT

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

The Channel & AGENT NEWS

http://tmcnet.com/29643.1

Trio of Data Center Integrators Get Extreme

Extreme Networks Inc. recently announced its partnership with a chosen group of new North American channel partners that specifically address data center network infrastructure. These highly qualified integrators are experts in the delivery and optimization of extremely scalable, virtualized, and energy-efficient data center network solutions. The new integrator partners include TechXtend of New Jersey, PCPC Direct of Texas, and Inacomp TSG of Michigan.

www.extremenetworks.com
www.inacomp.net
www.pcpcdirect.com
http://techxtend.com

http://tmcnet.com/29639.1

NACT to Exclusively Distribute VOIPFUTURE's Voice Services Monitoring

NACT Solutions will be the exclusive distributor of VOIPFUTURE's Voice Services Monitoring capabilities in the United States and Canada. NACT customers will be able to fully control the voice quality of their VoIP services as a result of VOIPFUTURE's technology.

www.nact.com
www.voipfuture.com

http://tmcnet.com/29641.1

EMC Resells Brocade IP Networking Solutions

EMC Corp. through a new deal will resell through the EMC Select program the Brocade IP networking portfolio of 10gigabit Ethernet switching products. That includes the Brocade FCX Series switch, the Brocade TurboIron 24X switch, the Brocade NetIron MLX Series, the Brocade NetIron CES 2000 Series and the Brocade ServerIron ADX Application Delivery Controller.

www.brocade.com
www.emc.com

http://tmcnet.com/29642.1

VIP Program Recognizes D-Link Partners

D-Link has introduced a new Value in Partnership (VIP) Partner Program. This program recognizes partners' contributions in delivering D-Link solutions and represents D-Link's commitment to building strong partner relationships. "Our Mission – Value In Partnership – embraces our partners' unique value-add capabilities, and rewards mutual success for partners who focus on selling our core networking solutions -- switching, wireless, storage, security and IP surveillance products," says Michael Fox, vice president of the U.S solutions channel for D-Link. "Many of our partners have told us they could easily add revenue to their D-Link solutions business if we gave them the tools."

www.dlink.com

By Paula Bernier

Hosted VoIP Provider IP5280 Seeks Channel Partners

IP5280 Communications is a five-year-old hosted VoIP and unified communications service provider that was founded and is managed by two 20-year telecom veterans, Jeffrey Pearl and John Scarborough. They met at Qwest, where they were heads of marketing and sales.

But it was while he was at ICG that Pearl saw the early decline of traditional telephony and the growth of VoIP. As that transition took place, customers needed a place to go, Pearl says, adding that's what prompted him to join forces with Scarborough to launch IP5280.

Like many hosted VoIP/UC providers, IP5280 targets small and medium businesses. And, like many other hosted VoIP/UC providers, it initially based its services on the BroadSoft platform. However, unlike many other providers in this space, IP5280 has outpaced the market by at least twice the average revenue growth rate, according to Franklin Court Partners.

IP5280 last year grew revenue at about 40 percent, when around 4 percent was the norm in the business, the partners say. The company, which has 750 business customers, expects to have $10 million in revenues by the end of this year.

Today IP5280 garners about 98 percent of its revenue from customers in Colorado, where it is based. However, IP5280 – so named because Denver is at an altitude of 5,280 feet – now is expanding beyond its traditional stronghold with a new nationwide channel program, opening branch offices, and launching new initiatives that expand its customer service and platform capabilities.

To head up the channel effort, IP5280 has welcomed aboard another former Qwest employee, Paul Mahn. Having also spent time as Level 3 and, most recently, Integra Telecom, Mahn is a veteran in the agent space, and is tasked with helping IP5280 create partnerships with agents.

To help with the channel effort, Scarborough says that IP5280 has been working for the past nine months to develop a Web portal, linked to its proprietary CRM tools, which will enable agents to enter and track orders, check commissions, and have visibility into the company's trouble management system. The recently launched channel partner portal also gives agents access to dozens of presentations, collateral, quoting tools, customer service offerings and promotions.

IP5280 already has attracted 40 agents, mostly in the Midwest. The company's goal is to have about 75 agents by the end of this year.

IP5280's Paul Mahn

Meanwhile, IP5280 expects to open two branch offices this year. An office that will house a direct sales force in Albuquerque, N.M., is slated to open July 1. A third branch in a to-be-disclosed location is expected to open by the end of 2010.

The company also is expanding its customer service efforts. It now offers clients live, around-the-clock customer service. This relates to IP5280's recently signed deal with LinkLogic, which will provide customers with a complete VoIP, LAN, WAN, application and infrastructure trouble-shooting solution.

"Because we're delivering more sophisticated IP applications such as custom call routing, voice-to-email and complex conferencing services, it became evident we needed to expand our channel and service options so our customers could continue to receive the white glove experience," says Scarborough. "With 700 percent growth in our business, it is clear that VoIP has arrived as the sweet spot for the communications industry. Properly managing growth so that customers have uninterrupted, seamless solutions and contact with IP5280 is our focus."

While IP5280 based its initial services on BroadSoft, and continues to support that platform, it's also expanding services via its own cloud-based platform that it calls cloud over enterprise resources, or CLOVER. That leverages BroadSoft, Microsoft OCS and open source feature servers.

Scarborough says CLOVER will be able to support any IP-based applications imaginable, including voice, conferencing, fax, hosting and more. IP5280 decided to begin work on CLOVER after several customers ask for functionality, such as call recording, that couldn't be supported by the current BroadSoft platform, he explains, adding that BroadSoft is one component of CLOVER. IT

By Jay Krauser

UC Is a Means to New Roles-Based Strategies in the Enterprise

Companies are leveraging unified communications to respond to constant evolution within the workforce. While it is certainly a worthwhile investment for competitive advantage, a well-planned UC deployment can set the stage for an even more expansive concept: roles-based communication. As new technology enters an already 24-hour enterprise, roles-based communication can help companies to respond better in a continually evolving economy and marketplace.

Most enterprises are now familiar with the benefits of leveraging UC to create communication-enabled business processes. Generally, the CEBP concept assigns communication technology consistently across the entire business process. Roles-based communication takes CEBP a step further by assigning the appropriate communication to each of the worker types involved in the business process. With a roles-based approach, companies assign the communication that best allows each person to execute and complete his or her specific part (or role) in a specific business process. By focusing on communication at the individual level, roles-based communication helps companies propagate their business processes across their organizations at a much deeper level.

Roles-based communication has been a part of most businesses for a long time, but traditional approaches are limited to the company's IT infrastructure — the network and its devices. As a result, workers are assigned a standard communications configuration based on their overall or main job classification within the company. Front-desk workers receive an attendant console. Contact center agents receive a headset and a PC. Knowledge workers receive a PC and desk phone. Executives receive a laptop and mobile phone.

Newer roles-based strategies expand beyond infrastructure, to include applications and business processes as well. They acknowledge that while many workers within the company have the same general job classification, their duties and responsibilities can be vastly different. A finance manager and a contact-center manager, for example, can both be classified as knowledge workers; but their job functions require them to be involved in completely different business processes. Even when they do participate in the same process, their roles within the process may be different. In a CEBP context, this means communications applications must integrate with very different business applications to achieve the level of process automation needed to increase efficiency. Roles-based strategies allow companies to design the appropriate communication for each worker based on his or her specific role within a specific business process — not a general job classification.

With roles-based communication, companies can better coordinate the efforts of their employees and the various roles they each play within the organization's business processes. It helps workers to better segment, control and process the flow of raw data, allowing them to conduct better analysis of the information to make better decisions and garner new insights in real time. This translates to quicker innovation, higher productivity, and ultimately higher revenues.

Roles-based communication takes CEBP a step further by assigning the appropriate communication to each of the worker types involved in the business process.

As the market continually evolves, the roles people play within the enterprise will become more paramount. While UC offers extensive value within the enterprise, companies should consider it the next step — rather than the endpoint — to more advanced concepts that deliver even greater benefits. With communications models of the past, technology dictated how people communicated and worked. Roles-based communication completely changes this dynamic by defining the need for communication tools based on how people work. Roles-based strategies put people — not technology — at the center of communications, empowering them to turn information into insight, transform ideas into action and drive the business forward. IT

Jay Krauser is general manager and senior technology strategist at NEC Corp. of America (www.necam.com).

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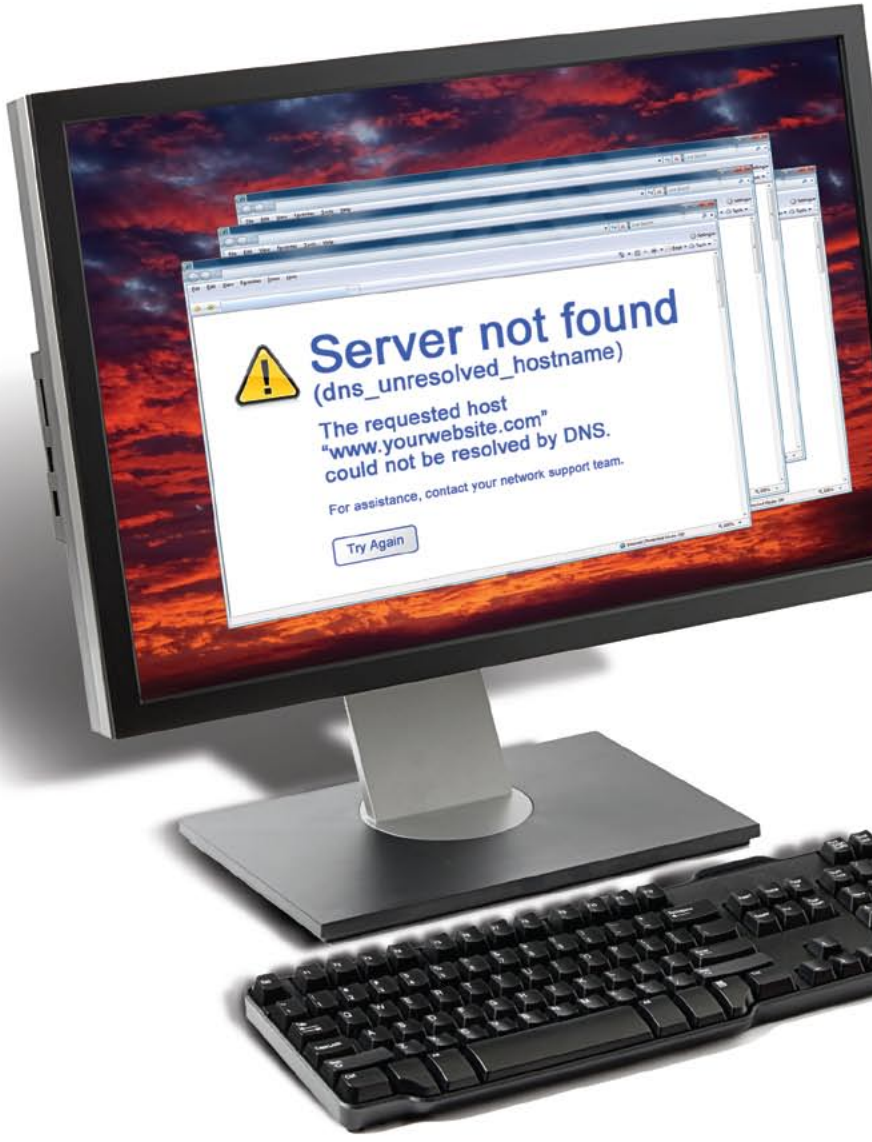

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HTTP://DNS.TMCNET.COM

http://tmcnet.com/29988.1

IBM Buys AT&T's Sterling Commerce

Big blue has entered into an agreement to acquire Sterling Commerce for $1.4 billion in cash from AT&T. The move will help IBM expand its ability to simplify and automate the way businesses interact with customers, partners and suppliers. More than 18,000 global customers use Sterling Commerce offerings. The company enables more than 1 billion business interactions a year for clients in the financial services, retail, manufacturing, communications and distribution industries.

www.ibm.com

www.sterlingcommerce.com

http://tmcnet.com/29989.1

New Round Brings in $10M for Sipera

Sipera Systems, a provider of real-time unified communications enablement and security solutions, has closed a funding round of $10 million. This round was led by S3 Ventures, and includes participation by prior investors Austin Ventures, Duchossois Technology Partners (DTEC), Sequoia Capital, and STAR Ventures.

www.sipera.com

http://tmcnet.com/29990.1

Hotel Outfit Selects Verizon Business

Verizon Business is providing an integrated network and communications solution that includes VoIP service for LQ Management's operations and wireless access for guests at its nearly 800 corporate-owned and franchise hotels located in 46 states. LQ Management, headquartered in Irving, Texas, needed a secure and reliable underlying infrastructure for connecting its widespread operations, including its reservation call center in Canada and its centralized data center. Vivek Shaiva, CIO with LQ Management L.L.C, says that consolidating the company's data, voice and video applications onto one network has simplified operation, proven to be cost effective, and significantly reduced technical issues across its locations, resulting in enhanced customer service.

www.verizonbusiness.com

http://tmcnet.com/29991.1

Study Leads VoltDelta to OASIS, ConnectExpress

VoltDelta found that its prospective customers worldwide wanted to deploy its technology, but in most cases lacked the infrastructure to support a call center in a converged network environment with integrated IP- and TDM-based protocols and advanced media processing capabilities. In fact, according to James Glasspool, director of strategic marketing at VoltDelta, the offerings were "often constrained by the limitations of our customers' existing switching and CTI environments, and this then limited our ability to offer the more innovative products they required. " After completing its integration studies, VoltDelta introduced its combined call center and switching platform branded as OASIS in EMEA and ConnectExpress in North America.

www.voltdelta.com

http://tmcnet.com/29992.1

Appraisal Business Assigns High Value to Apptix Solution

Apptix, a vendor of hosted Microsoft Exchange e-mail, Microsoft SharePoint, and VoIP services, has announced that E-Appraisal, a Las Vegas-based provider of residential and commercial appraisal services and products, has increased internal and client collaboration through the use of Apptix hosted communication. Company officials say e-mail costs alone were reduced by nearly 90 percent. E-Appraisal is using Apptix Hosted Microsoft Exchange with ActiveSync for mobile e-mail on iPhone and Windows Mobile devices, SharePoint, and Microsoft Communicator for secure Instant Message with Presence capability.

www.apptix.com

http://tmcnet.com/29993.1

SOHOs Get Room with a Vu

Vu Telepresence has released its Vu Telepresence Pro, which focuses on the home-based businesss market. Vu Telepresence Pro uses consumer class DSL and Vu provides all of the hardware for the system. Vu TelePresence Pro was designed for home offices, small offices, home-based professionals and executives so it utilizes low and inexpensive bandwidth without sacrificing audio and video quality.

www.vutelepresence.com

http://tmcnet.com/29994.1

Brit Bank Charters iPhone

A British bank called Standard Chartered recently made the decision to switch out its BlackBerry fleet with an iPhone solution. The group-wide initiative could have thousands of bankers move to the Apple iPhone. The BlackBerry owns the No. 1 place in the U.S. smartphone market, with 36 percent share, but the onslaught of new smartphones, including the iPhone, is challenging RIM now more than ever.

www.apple.com

http://tmcnet.com/29983.1

Novell, Vodacom Come Together

To help businesses across Africa securely provision, manage and monitor multi-tenant applications deployed from Vodacom Business's cloud infrastructure, Novell BrainShare Europe and Vodacom Business announced a partnership that will integrate much of Novell's Intelligent Workload Management portfolio including: SUSE Linux Enterprise Server, Platespin Virtualization and Workload Management, and Identity and Security solutions into the network provider's cloud hosting solutions.

www.novell.com

www.vodacom.co.za

http://tmcnet.com/29608.1

Gateway Company Sonus Unveils All-IP Solution

Sonus Networks Inc. has unveiled a new all-IP platform through which it aims to deliver a variety of new products and functionality over time via software. The first product based on the new ConnexIP platform is a session border controller called the NBS-5200, which Sonus claims is the most dense and scalable SBC in its class. The NBS-5200 performs transcoding and media interworking, and offers advanced routing, policy engine and multi-access security gateway functionality. It also has native support for IPv6 and IPSec encryption.

www.sonusnet.com

http://tmcnet.com/29609.1

Windstream Blows into Northwest Arkansas

Windstream has expanded its communications services to Northwest Arkansas. The company sells IP connections over which customers can support voice and Internet services. Its managed business phone system and Internet solution also includes equipment, installation, maintenance, support, updates and more.

www.windstream.com

http://tmcnet.com/29610.1

New Infonetics Study Analyzes Business VoIP Services

Many of the service providers offering business VoIP services in North America have fewer than 10,000 IP Centrex subscribers or IP lines/trunks, and are content with selling their services within a small niche or geographic market, according to the latest North America Business VoIP Services Leadership Matrix released by Infonetics Research. The firm's newest research report says there are more 100 service providers offering business VoIP services in North America. Among these, the top IP Centrex service providers include 8x8, New Global Telecom and Verizon Business, while the top IP connectivity service providers include AT&T, Cbeyond, and Verizon Business.

www.infonetics.com

http://tmcnet.com/29611.1

New Solution from Openet Targets Video

Openet's Audience and Engagement Measurement solution will allow cable operators to measure subscriber activities across all video services, like linear and non-linear viewing data and click streams associated with interactive television initiatives. This solution helps operators collect, aggregate and enrich and also distribute usage data and subscriber profile information in real time. That can help enable personalized services and targeted marketing campaigns.

www.openet.com

http://tmcnet.com/29612.1

Telcordia Dynamic Pricing Addresses Revenue Optimization

Revenue optimization is a key focus for any mobile provider. To meet this growing demand, Telcordia has launched Telcordia Dynamic Pricing. This new solution is designed to analyze network traffic and performance in an effort to automatically offer discounts to subscribers as an incentive to shift usage to underused cell areas or less congested time slots.

www.telcordia.com

http://tmcnet.com/29613.1

Occam Wins Iowa Telco's Business

Central Scott Telephone, headquartered in Eldridge, Iowa, has deployed Occam solutions in two significant upgrade projects. Central Scott is now unlocking new revenue streams as a result of upgrading its existing DSL network to improve the quality of current voice and data services as well as future video services to be offered. It is also completing a competitive fiber overbuild to make advanced services available to the neighboring Quad Cities area.

www.occamnetworks.com

http://tmcnet.com/29614.1

Roberts Explains Comcast First Quarter Results

Reporting a strong first quarter 2010 for Comcast, Chairman and CEO Brian Roberts attributes the cable company's success on a rebound in advertising, momentum in business services and its continued focus on expense and capital management. "We've also made significant progress in deploying all-digital and DOCSIS 3.0, or wideband," Roberts says.

www.comcast.com

http://tmcnet.com/29618.1

Apple's Adobe War Reminiscent of Former Microsoft Battle

The new battle between Apple and Adobe looks more and more like the Apple/Microsoft tilts of long ago, says Steve Vonder Haar of Interactive Media Strategies. While Apple nestles itself in the comforting cocoon of open HTML5 standards, it really will generate the bulk of its value from the rich media platform from its highly proprietary (and for all purposes, closed) iTunes media distribution platform. And it will make most of its money over the long haul by serving as the gatekeeper for selling and distributing video, publications and software applications on devices featuring the "open" software platform.

www.adobe.com
www.apple.com
www.microsoft.com

http://tmcnet.com/29617.1

IPX from XConnect Enables FMC Interoperability

XConnect, which sells interconnection and carrier ENUM-registry services, has introduced the IP eXchange, or IPX. The new platform integrates PathFinder, a number translation service from the GSMA, to enable interoperability and convergence between fixed and mobile networks.

www.xconnect.net

http://tmcnet.com/29616.1

Telecom Pragmatics: Verizon May Be Reconsidering Nationwide LTE

There are rumors Verizon is rethinking some parts of its bandwidth upgrade plan. "Astonishingly, there appear to be cracks at the top of the Verizon Wireless management over whether its full plans for 4G are guaranteed," say researchers at Telecom Pragmatics. "In particular there seems to be growing opposition to a nationwide play." Telecom Pragmatics says that the thinking is that LTE can be done in selected areas, while moving to EVDO Rev B for the other parts of the country. Verizon has denied it has such plans, though.

www.verizonwireless.com

http://tmcnet.com/29624.1

Two Service Providers Embrace Mobile Call Back Dialer

REVE System's iTel Mobile Call Back Dialer recently launched with adoption by two leading call back service providers, TalkFree USA and e-Sky Malaysia. The dialer is a mobile application that enables call back services for mobile phones.

www.revesoft.com

http://tmcnet.com/29619.1

Intel, Clearwire Alter WiMAX Contract Terms

Clearwire and Intel have revised the terms of their agreement. As a result, either party may exit the agreement, which previously forced Clearwire to use WiMAX through Nov. 28, 2011. This change could clear the way for Clearwire to expand from WiMAX to LTE, the 4G technology many believe will win out in the long term.

http://tmcnet.com/29620.1

Apple to Lock iPad for Japan

Steve Jobs is now backpedaling on his pledge to deliver an unlocked version of the iPad 3G in Japan. Instead, the company this spring indicated that Apple iPads will be SIM-locked to Softbank Mobile, the Japanese Apple iPhone partner.

www.apple.com

http://tmcnet.com/29621.1

Verizon Wireless Plays Up Technology with Free Concerts

A new program called The Verizon Wireless Coffee Shop Series targets San Francisco's coffee shop community with free access to exclusive concerts by local talent and offers the carrier a chance to showcase its technology, including the Verizon Wireless MiFi 2000 and new 3G smartphones. The concerts will take place in two San Francisco theaters. Tickets to each performance will be handed out prior to each show in its partner coffee shop.

www.VerizonInsider.com/CSS

http://tmcnet.com/29622.1

Aeroflex Snaps Up Willtek Assets

Wireless Telecom Group Inc., a designer and manufacturer of radio frequency and microwave-based products for wireless and advanced communications industries, has completed its sale of all of the operating assets of its wholly owned subsidiary Willtek Communications GmbH and affiliates to Aeroflex Inc., a Delaware corporation. The deal is worth $2.75 million in cash and the assumption of certain liabilities. Willtek provides solutions for testing, measuring, and analyzing RF networks and devices.

www.aeroflex.com

www.willtek.com

www.wirelesstelecomgroup.com

http://tmcnet.com/29623.1

Google, Verizon Address the Tablet

Verizon Wireless has confirmed it is working on an Android-based tablet computer. The top wireless carrier won't say when the device will be released or who will manufacture it, but Verizon and Google are definitely partners in the venture, marking the first major tablet foray for the Android platform. Android was embedded in the majority of smartphones sold in the first quarter of 2010.

www.google.com

www.verizonwireless.com

http://tmcnet.com/29625.1

HP Buys Palm

Palm, once the darling of the mobile phone industry, has fallen on bad times. But it has some "juicy" mobile phone technology patents, according to TMC's Tom Keating, who indicates that may have contributed to HP's interest in acquiring Palm's assets.

www.hp.com

http://tmcnet.com/29626.1

Clearwire Brings WiMAX to Pennsylvania

The CLEAR WiMAX 4G service from Clearwire Communications is now available to residents of Harrisburg, Lancaster, Reading and York, Penn., as well as to those who work and dwell in surrounding suburbs. That covers 740,000 people in a 271-square-mile area.

www.clearwire.com

http://tmcnet.com/29627.1

NSN, Samsung Demo TD-LTE

Samsung and Nokia Siemens Networks report they have successfully conducted "the world's first TD-LTE data call" using a prototype end user device. The demonstration also proved interoperability between Nokia Siemens Networks' end-to-end TD-LTE network solution with Samsung's TD-LTE USB dongle. The data call was conducted at Nokia Siemens Networks' R&D Center in Hangzhou, China.

www.nokiasiemensnetworks.com

www.samsung.com

http://tmcnet.com/29628.1

Stack Overflow Gets $6M Infusion

Union Square Ventures just helped raise $6 million for a first round of funding for Stack Overflow, a next-generation message board that combines the features of a wiki, blog, forum and social news site. Stack Overflow, a Q&A-style site, boasts 7.1 million visitors. However, it may be the company's platform, called Stack Exchange, that's most interesting to investors.

http://stackoverflow.com

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http://tmcnet.com/30498.1

Avoiding Common Mistakes in TEM Supplier Selection

A majority of enterprises are overspending on telecom services, and the process in selecting a TEM supplier is critical to help reduce those expenses, says Telesoft, a provider of TEM software and services to enterprises. According to a new white paper, "Avoid the Top Five Errors in Selecting a TEM Supplier," there are five common mistakes companies commit while selecting a TEM provider. The white paper offers recommendations on how to avoid them. The company finds that organizations which are in the final stages of selecting a TEM supplier have not developed a business justification for TEM.

www.telesoft.com

http://tmcnet.com/30499.1

Telcordia Announces Total Perspective Planning Solution

Telcordia has launched a new holistic telecom service planning tool – the Telcordia Total Perspective Planning solution. The offer is designed to help communications service providers improve network return-on-investment at each decision point across the enterprise.

www.telcordia.com

http://tmcnet.com/30500.1

TEM Market Surpasses Expectations

As TEM business process outsourcing services providers deliver measurable value to the enterprise, growth in TEM is surpassing predicted levels. Gartner recently found that the market has matured ahead of its own predictions due to the entry of larger integrators and outsourcers. Providers in North America are benefitting from the growing demand in Europe, although emerging country-focused TEM providers in Europe are responding to the demand as well. Gartner estimates that 2010 will be a breakout year for TEM as Western Europe-based companies begin to adopt TEM services in greater numbers.

www.gartner.com

http://tmcnet.com/30501.1

Avalon, Teleopti Partner

Avalon Global Solutions, a provider of mobile lifecycle management solutions in North America, has announced a strategic partnership with Teleopti, a Swedish company offering telecommunications expense management applications in Europe, Asia and the Middle East that address enterprise-level mobility management globally. AGS will resell Teleopti's products and services in North America and abroad.

www.avalonglobalsolutions.com

www.teleopti.com

http://tmcnet.com/30502.1

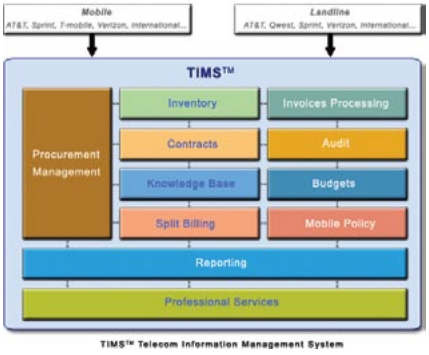
TEMIA Paper Explores Inventory Management Best Practices

The Telecom Expense Management Industry Association has released a white paper titled "Your Exceptional TEM Program: Best Practices for Inventory Management Using TEM Metrics to Improve Performance." TEMIA is working to establish standards and key performance indicators, that "can be used by managers and personnel performing operational roles at enterprises and suppliers," association officials say. It's their belief that customers need standards to help answer such key questions as to what critical factors contribute to supplier performance and a better return on investment, and how their results compare to best practice metrics. The paper also addresses such issues as what service level agreements will drive results, and how to measure the success of a TEM tool.

www.temia.org

http://tmcnet.com/30503.1

Amtel Launches TMCnet Telecom Expense Management Community



TIMS™ Telecom Information Management System

Technology Marketing Corp. has announced the Telecom Expense Management global online community, sponsored by Amtel, as the newest addition to the TMCnet global online community program. Amtel's award-winning TIMS landline and mobile expense management software is designed to provide an easy-to-manage application for tracking, managing, and reducing both landline and mobile services expenses at enterprises of all sizes. The solution also can be configured to segregate personal employee usage charges from the acceptable corporate spend.

www.amtel.com www.tmcnet.com

http://telecom-expense-management.tmcnet.com

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Former Sun Execs Join ForgeRock Management

ForgeRock, the official steward of the ForgeRock I³ Open Platform project, has added to its management former Sun Microsystems executives Lasse Andresen, Simon Phipps, and Hermann Svoren. Andresen is CEO; Phipps is chief strategy officer; and Svoren is director of sales. ForgeRock I³ Open Platform is a high-performance, unified platform addressing interaction, identity and integration issues facing enterprises today.

www.forgerock.com

http://tmcnet.com/29645.1

AstriCon Conference Announces NETXUSA as Platinum Sponsor

NETXUSA has signed on to be a platinum sponsor of the upcoming AstriCon Open Source Telephony Conference and Exhibition. AstriCon 2010 will be held Oct. 26 through 28 at the Gaylord National Resort and Convention Center near Washington, D.C. The Digium-sponsored event, now in its seventh year, attracts software developers, integrators, resellers, enterprise Asterisk users, and Digium partners working with phone systems, unified communications and voice over IP.

www.astricon.net
www.digium.com
www.netxusa.com

http://tmcnet.com/29647.1

Digium Switchvox Adopted by Andi-Co

Andi-Co, which markets and distributes kitchen and refrigeration brands Andi, Falcon and GE, has chosen Digium's Switchvox business phone system to support its unified communications needs. Switchvox SMB 355 supports 400 users and up to 75 concurrent calls. It integrates features like call queues, call recording, conferencing, chat, video and presence in a single system.

www.andico.com.au
www.digium.com

http://tmcnet.com/29648.1

Kuwait Utility Dons Red Hat

The Ministry of Electricity and Water in Kuwait has decided to change its data center infrastructure from Novell SUSE Linux Enterprise Server 10 to Red Hat Enterprise Linux. MEW, which serves more 800,000 consumers, opted to migrate to Red Hat Enterprise Linux to address Kuwait's need for increased power capacity and lower its total cost of ownership. Applications to be supported on the new infrastructure will include an automated meter infrastructure and geographic information system, as well as the applications responsible for human resources, business intelligence and customer relationship management.

www.redhat.com

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By Paula Bernier

WhiteHouse.gov Expands Open Source Efforts

The White House has jumped aboard the open source bandwagon. And we're not talking about some cleverly named Silicon Valley upstart. This is the real deal.

In late April, White House blogger Dave Cole announced plans to release some of the custom code the White House has developed.

"This code is available for anyone to review, use, or modify," wrote Cole. "We're excited to see how developers across the world put our work to good use in their own applications."

The majority of the code for WhiteHouse.gov already is open source and is part of the Error! Hyperlink reference not valid., an open source platform in use by tens of thousands of people and organizations. What's new, according to Cole, is code that brings new accessibility, communication and scalability to the table.

On the scalability front, WhiteHouse.gov is releasing a module called Context HTTP Headers, which allows site builders to add new metadata to the content they serve.

"We use this to tell our servers how to handle specific pages, such as 'Cache this type of page for 15 minutes or that type for 30,'" Cole writes.

A second module addressing scalability is Akamai, which allows the Web site to integrate with content delivery network provider Akamai.

The enhanced communication features relate to mailing lists and preferences.

"Many government agencies have active e-mail programs that they use to communicate with the public about the services they provide," writes Cole. "We have a mailing list for the White House where you can get updates about new content and initiatives. To enable more dynamic e-mails tailored to users' preferences, we've integrated one of the popular services for government e-mail programs with our CMS in the new module, GovDelivery."

And to enable better accessibility, WhiteHouse.gov wants to make sure all images on the site have the appropriate metadata to make them readable via screen-reading software.

"To help us meet this, while making it easier to manage the rich photos and video content you see on our site, we've developed Node Embed," writes Cole. IT

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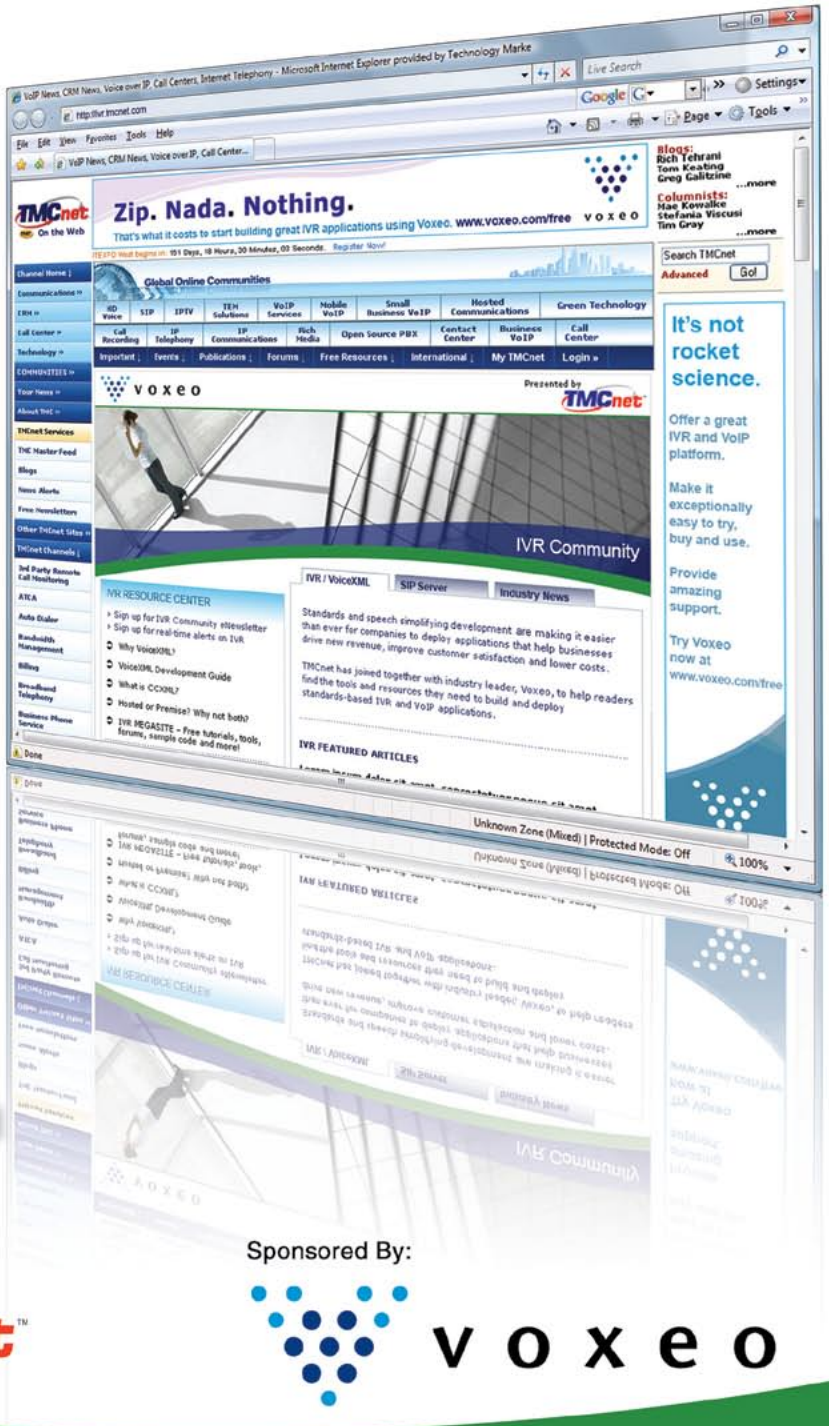

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By Paula Bernier

Latency Matters

Cloud Computing, Rich Media, Financial Industry Drive Changes in Data Center, Colo Space

Rich media has flooded public networks. Real-time and delay-sensitive traffic like voice and video are going IP. Cloud computing is proliferating. And on May 6, Wall Street experienced the flash crash, sending the Dow down nearly 1,000 points within seconds.

All of this is putting new emphasis on the fact that latency matters.

Every second – or even millisecond – can make a significant difference, whether you're talking about the quality of delay-sensitive traffic, the end user experience with cloud-based services, or the ability to trade fairly (or quickly halt trade, when needed).

Controlling latency was among the key drivers of Equinix's recent purchase of Switch and Data, says Jarrett Appleby, chief marketing officer at Equinix, which sells data center space, power, cooling and the ability to interconnect with others.

Equinix on May 3 announced the closing of its $683.4-million deal to acquire Switch and Data. The transaction, which was announced Oct. 21, strengthens Equinix's position in the global data center services market by extending its presence to 16 new metropolitan areas across North America and by expanding the company's regional data center footprint from six to 22 metropolitan areas. The company now operates more than six million gross square feet of global data center space with more than 575 network service providers.

Appleby calls the data center "the new network hub of this century."

"The data center is becoming the new interconnection hub for the convergence of network and services," he says. "It's kind of like the wave we rode 7 or 8 years ago with the Internet peering community. The networks needed to interconnect with the content guys, and what that drove is that rapid growth rate and the need for making it easier to exchange data for the Internet, which evolved to video and content distribution worldwide. The big folks we were working with were the Googles and the Microsofts and the Yahoos of the world."

The same thing is happening now with new WAN solutions, he says, noting the expansion of Ethernet beyond LANs to also include carrier-class Ethernet.

"You need to get these WAN solutions and new interconnection hubs really close to customers," Appleby says. "So we were asked to go to places like Seattle and Denver, Miami and Toronto and Atlanta were the big five. And along for the ride came an even deeper penetration into Philadelphia and Pittsburgh and Boston and places like that. So it moved us from a U.S./North America coverage from roughly 30-millisecond latency for 95 percent of the population and for enterprise clients to within less than 10 milliseconds away for 94 percent of the U.S. population."

That 20 millisecond difference is important, he notes, because it can have a significant impact on how the application performs and, thus, the end user quality of experience. And while that applies to a variety of applications, the big driver of the push to lower latency by bringing content closer to the edge is cloud services, says Appleby of Equinix, which has more than 130 cloud and SaaS companies (like Amazon) within its data center and colocation sites.

Rose Klimovich, vice president of product management and product development at Telx, says that cloud computing in the early days was best effort, but now it's evolved to be more enterprise-level. So if you're a cloud provider or a CDN company serving financial services companies in New York, for example, it's good to get as close to them if possible if you're enabling real-time access to video or transactional applications, she says. However, other applications, such as back-up e-mail services, don't have those same requirements.

"It is good to be centralized amongst our customers because that means the latency for all of our customers is not so bad," says Daniel Marques, CTO of Ballista Securities, a Telx customer that runs the Alternative Trading System. "And most of our customers are clustered in the New York area or the Chicago area."

John "JT" Tomljanovic, director of IT solutions global product management for Verizon Business, says a nanosecond can make

Verizon's John "JT" Tomljanovic

a difference between price points on a big exchange in the financial industry.

"So in the financial industry, I think proximity hosting is key," he says.

Dan Tuchler, vice president of product management with eight-year-old BLADE Network Technologies, a Nortel spin-out that sells blade servers and server rack switching elements, adds that high-frequency Wall Street traders want the lowest latency possible and absolute fairness in the network "because if one trader is getting a slightly slower [response] than other traders, that's a problem.

"There are no absolutes," adds Tuchler, "but you can provide switching equipment that has the same latency on every port."

Tomljanovic adds that Verizon Business has an advantage because it offers not only data center services and cloud-based solutions, but also owns networks and other facilities to support CDN and wide area connections.

"So when a customer comes to us we're going to tout that our network is an advantage," he says, adding that Verizon Business makes sure its data centers are near customers for which latency control is important.

Verizon Business's Tomljanovic goes on to say that he expects to see further consolidation in the data center and collocation space as more services move to the cloud.

"Within two to 10 years from now everything customers buy is going to be purchased as a service," he says. "That's my prediction.

"So I don't think people are going to be buying data centers, they're not going to be buying servers, they're going to be coming to companies like Verizon" to deliver it all, he adds.

It would seem that Cincinnati Bell has a similar view of the market's interest in buying data center-related product bundles, as the telco and ABRY Partners in May announced plans for Cincinnati Bell to acquire data center operator CyrusOne for $525 million.

(Meanwhile, ADVA Optical Networking, IBM and Level 3 have joined forces to provide customers with secure wavelength services to deliver high-bandwidth access between their sites and IBM cloud data centers.)

CyrusOne sells colocation and data center services to Fortune 500 companies. The largest privately held data center operator out of Texas, CyrusOne owns seven data centers in Austin, Dallas and Houston – with a total of 163,000 square feet of data center capacity. Once the merger closes, Cincinnati Bell will have 609,000 square feet of data center capacity in 17 facilities.

"Data center services are a key strategic focus for Cincinnati Bell, allowing the company to provide next-generation computing and communications services for our customers," says Jack Cassidy, president and CEO of Cincinnati Bell. "The success of this strategy is evidenced by our ability to organically build the Technology Solutions segment of our business into a $300 million run rate revenue operation."

Two important trends driving growth in data center services are rapid adoption of Internet-related technologies by enterprise customers to run their most important business functions, and the accelerating demand for outsourced solutions that allow them to better focus on their core business, he adds.

Peter Melerud, co-founder and vice president of product development at KEMP Technologies, which makes server load balancing products that can be used in virtualized architectures, says that while it used to be only large companies that were moving content to the edge, today businesses of all sizes are doing so, and gear from companies like KEMP can enable that. KEMP now offers two load balancer/application delivery controllers for less than $2,000 each. If a company has multiple sites, a geographic load balancer can be used to decide which data center is the best candidate to address a specific request, Melerud adds. IT

KEMP's LoadMaster 5500

Four Important Trends Affecting Data Centers Now

- the growth of video, which will create over the next 5 years a five- to seven-fold increase in demand for Internet capacity and more need for interconnection;
- the rise of wide area network Ethernet;
- mobility, which is creating choke points on mobile networks and a need for wireless operators to place their data centers and do their interconnections more strategically; and
- the growth of cloud and SaaS.

By Paula Bernier

You Ought to Be in Pictures

Telepresence, Videoconferencing Continue to Gain Momentum

Telepresence is still a small part of the market, but its high margins continue to excite service providers and suppliers, which at the same time are going down market to bring more customers into the fold. Meanwhile, more organizations seem to be seeing the appeal of videoconferencing – including telepresence – solutions, which can help them save on travel costs and carbon emissions while enabling collaboration that can mean faster time-to-market for their products and offer a nice back-up plan in case someone can't physically make it to a business meeting.

A Rising Tide

Sales of telepresence hardware, software and services grew to $567 million in 2009, according to ABI Research.

Steve Vonder Haar, research director and founder of Interactive Media Strategies and a TMCnet contributor, says despite the dampening effects of the recession during the past 18 months, spending on business video equipment and services expanded at a 15 percent rate in 2009, reaching $531 million for the year.

"Based on results from a survey of more than 1,000 corporate executives and on-going anecdotal evidence collected in on-going interviews with industry vendors and corporate end users familiar with the enterprise video market, Interactive Media Strategies projects that growth rates for online video technologies in the corporate sector will rebound in 2010," Vonder Haar explains. "This year, the market for online business video tools and services will reach $657 million – an increase of 24 percent over 2009 spending levels."

Frost & Sullivan last year forecast that the telepresence and videoconferencing market would reach $4.7 billion by 2014. The firm unveiled a study this year saying the global market for telepresence, more specifically, last year was $396.2 million and that it is expected to reach $825.9 million in 2015.

"The effectiveness of the latest technologies and the impact of the global economic downturn are impelling businesses to re-assess visual collaboration such as video telephony, videoconferencing and telepresence as viable solutions to facilitate reduced operations costs," says Frost & Sullivan Principle Analyst Dominic Dodd.

Michael Burrell, senior manager of unified communications and collaboration at Orange Business, says that telepresence recently has gone from a niche technology to "being front and center".

"When Cisco introduced its telepresence product in the fourth quarter of 2006, it totally changed the market, and the rising tide lifts all boats," says Burrell, adding that has spread awareness about video overall, whether room- or desktop-based, super high-end or otherwise.

"Really, telepresence has kicked off a video renaissance in the last two years," he continues. "It's still a small part of the market; 6,000 rooms have been sold to date, compared to last year in the video market in which there were 240,000 endpoints sold."

But, he adds, the revenue opportunity per telepresence solution is much larger than for a standard room-based videoconferencing system. Burrell estimates the price tag of a telepresence solution is about nine to 10 times that of a stand-alone, room-based system.

"A telepresence solution involves a whole room redesign because you're building an immersive experience – it's not only about the ultra high quality or high-definition screens and video codecs and CD-like audio, but you're also paying attention to lighting, the acoustics for sound, furniture, even down to the paint on the wall – to, in a sense, create the visual image that you're in the same room as the other people that you're meeting with even though you're separated by distance," Burrell explains.

He says a full-blown, three-screen telepresence experience costs in the neighborhood of $200,000 per room. By comparison, he adds, dropping an HD videoconferencing unit into a multipurpose room tends to be more in the $20,000 to $30,000 range.

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Designer apparel brand Tommy Hilfiger uses a BT-supplied telepresence solution, which includes three "virtual fitting rooms."

"Up until the last few years, videoconferencing was done at video resolutions less than standard definition television," says Bob Romano, vice president of enterprise marketing at RADVISION, which in May launched a new HD videoconferencing room system called SCOPIA XT1000, the first development based on RADVISION's recent acquisition of Aethra endpoint technology. "This provided a less than high-quality experience, with fuzzy images, when the whole point of videoconferencing was to be able to see the reactions and expressions of the people in the room on the other end. With the advent of HD videoconferencing, it was suddenly possible to really see the other participants. The extreme example of that is telepresence, where the remote participants appear to be sitting at the same table and are displayed life size. But even with meeting room videoconferencing systems, HD dramatically improves the experience. Not only does the higher resolution image make the remote participants clearer, but the widescreen format allows more of the conference room to be visible.

"Customers have responded to HD," adds Romano. "The growth rates in videoconferencing sales and deployments has increased in the last several years after being fairly stagnant for many years."

Video for All

Orange Business offers customers a service called Telepresence Connection, supported by MPLS IP VPN technology that prioritizes telepresence traffic in the event of network congestion, to provide connectivity. It delivers 5mbps per screen and 30 or 60 frames per second. The company also has a light version of the service, which offers 2mbps connectivity with still very good quality video, to enable businesses to extend video to remote locations even in far-flung locations such as Africa or offshore.

This is just one example of how companies are trying to make telepresence, and videoconferencing in general, accessible to more users and locations.

"Nearly any size company has access to telepresence and videoconferencing services," says David Lemelin, director of the enterprise communications research service at ABI Research, which recently released its Enterprise Telepresence and Video Conferencing study. "Suppliers are helping businesses transition to telepresence by introducing personal and room-based HD videoconferencing solutions."

For example, Vu Telepresence offers Vu Telepresence Pro, which focuses on the home-based business market. Meanwhile, TANDBERG (now part of Cisco) has launched a new personal telepresence solution that extends the TANDBERG Telepresence in-person experience to individuals at their desks or home offices.

Called the EX90, this new TANDBERG solution is designed for executive users

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and offers full 1080p30 resolution to any standards-based video or telepresence system. It offers the MultiSite feature that allows executives to add two other participants to any call.

"Telepresence isn't just about the room set up or number of screens," says Dodd of Frost & Sullivan. "It's about the ability to reproduce the valued characteristics of a face-to-face meeting or other similar form of direct human interaction. The EX90 does this by bringing the high-quality, natural experience of TANDBERG Telepresence to the desktop in a very attractive solution that makes communicating with other video and telepresence users simple. It also incorporates familiar business collaboration tools and features to streamline the overall experience and help drive efficiencies."

Dovetailing with the ABI analyst's comments above, Burrell of Orange Business adds that video is expected to proliferate throughout organizations as various videoconferencing units and services become more affordable and, thus, more widespread. He mentions that Samsung recently unveiled a desktop video unit that sells for list price of $2,000.

Lemelin of ABI Research adds that telepresence room rentals also are on the rise.

Indeed, Burrell also talked about the idea of offering "telepresence as a service," to enable customers to forego the capital expense of creating telepresence rooms.

"We have a pilot in that regard," he says.

Vonder Haar of Interactive Media Strategies says nearly $379 million will be spent on on-premises video technologies this year. Meanwhile, the event services sector, for which vendors handle the creation and distribution of business Webcasts on a turnkey basis on behalf of corporate clients, will generate $118 million in revenues in 2010 with revenues for hosted software solutions expected to top $100 million for the first time, he adds.

"From now through 2014, spending on hosted solutions are expected to grow faster than any other sector of the business video market," according to Vonder Haar. "By the end of the forecast period, annual revenues for these hosted 'software-as-a-service' offerings are projected to top a half-billion dollars annually."

Telepresence Drivers

- Saving on travel costs particularly for companies experiencing supply chain expansion;
- Suppliers targeting companies with legacy video teleconferencing systems and expanding telepresence system interoperability;
- Telepresence enhanced with unified communications features such as whiteboards, document sharing and webcam videos;
- Growth of managed and cloud telepresence services from vendors such as Glowpoint, BT Onesource, Verizon and AT&T;
- Telepresence products for mobile employees and devices such as laptops and smartphones.

Source: ABI Research

"You throw a little discounting behind that, and it's a no-brainer to justify it for anybody," he says, adding an organization would just have to save one international trip or a couple U.S. trips to justify that cost.

Finding the Savings

Travel cost savings are a key force driving the adoption of telepresence and videoconferencing, according to many sources.

"A virtual meeting is a substitute for travel. The business case is very clear. We can tell a customer, by looking at their travel expense over the last 12 months, exactly what the ROI is. So you have the economic factor," says Burrell of Orange Business, which unveiled its telepresence offer two years ago in May and now delivers such solutions based on Cisco, TANDBERG (now part of Cisco) as well as Polycom technology.

Not only is videoconferencing (whether telepresence or not) a good way to avoid travel upfront, it's also a nice fallback strategy in case employees can't make it to an important meeting or other event. For example, several sources mentioned how many business travelers' itineraries were interrupted recently by the volcano in Iceland, which led to the cancellation of about 100,000 flights and left something like 10 million people stranded.

Of course, other natural disasters, public health-related issues and security concerns also have recently impacted people's ability to travel easily and without worry, and may have had something of a chilling effect on travel.

Still, there are some who warn that videoconferencing should not be a replacement for business travel, but rather a complement to it.

"One of the biggest motivators for businesses to implement a corporate-wide telepresence solution has always been and still remains cost reduction in business travel expenses," says Bob Duggan, B2B Computer Product's director of sales for its telephony division. "It's important to understand that this technology will never and should never replace face-to-face meetings with staff and/or clientele. Rather it should be used to provide advanced and or enhanced meeting experiences in between the visits that actually require traveling.

"In most cases within the upper echelon of SMB clients, there is a very fast and considerable return on investment for adapting this technology," he adds.

In addition to potential travel savings, business video also can help organizations hold down their carbon footprints. That's particularly meaningful for some European businesses,

which are required by law to cap their carbon emissions.

In fact, Orange Business offers its customers a tool that nets out carbon emissions they save by using telepresence.

BT, which offers telepresence solutions as well, also is promoting the carbon-capping benefits of its service.

"This solution will … significantly lower carbon emissions," says Bas Burger, CEO of BT Benelux. "It is a good example of where sustainability and cost-savings go hand-in-hand. We at BT understand that sustainability."

Better Collaboration

Burger notes that point in discussing BT's recent telepresence win with Tommy Hilfiger.

The designer apparel brand has signed a five-year managed services contract with BT for a videoconferencing solution it jointly developed with TANDBERG.

The contract includes two TANDBERG Telepresence T3 systems, in Amsterdam and New York; a Telepresence T1 system in Tokyo; three virtual fitting rooms, based on the Telepresence T1, in Amsterdam, New York and Hong Kong; desktop units, supporting infrastructure (such as recording facilities) and software. BT also brings to the table its managed services, which include always-available help desk support, automated call scheduling and call launching, on-site maintenance, monitoring and remote diagnostics.

As noted, this deployment involves something that the companies call the virtual fitting room, which leverage BT's Unified Communications Video solution coupled with Cisco's TANDBERG technology. The virtual fitting rooms have add-ons such as mobile cameras and recording facilities to enable the design team – based in Amsterdam and New York – to collaborate faster and more effectively with the manufacturing team in Hong Kong. That will enable the teams to discuss the development of every single piece of the collection face-to-face without having to take long-distance flights, according to Tommy Hilfiger.

"Tommy Hilfiger has always been a trend setter, now further illustrated by their innovative approach to virtual design and collaboration," says Fredrik Halvorsen, senior vice president of the TelePresence Technology Group at Cisco. "Like many other leading companies, Tommy Hilfiger has recognized that high-quality telepresence can make their processes faster and more effective, delivering a distinct competitive advantage."

Indeed, Burrell of Orange Business adds that telepresence can enable companies in a wide variety of verticals to accelerate their development cycles and get their products to market faster.

Metcalfe's Law

This virtual fitting room already sounds pretty futuristic, but it's already here today.

So what's next for telepresence?

Well, one of the things is interoperability, not just among users within an organization, but also among users at different companies and with different vendors' telepresence systems.

Telepresence can enable companies in a wide variety of verticals to accelerate their development cycles and get their products to market faster.

Research and consulting firm Frost & Sullivan in a report last year noted that for telepresence to realize its full potential, customers that use such high-end videoconferencing systems will need to be able to talk to each other no matter what telepresence solution they use.

And Orange Business in May was expected to launch a test with an eye toward enabling just that.

Burrell says Orange Business and another global service provider already have successfully tested interconnecting their telepresence services. Starting in May, he adds, Orange is going to bring in one of its telepresence customers that wants to hold a telepresence with a partner that's on another telepresence solution.

"It gets back to Metcalfe's Law – the value of the network is driven exponentially by the number of endpoints that are attached to it," Burrell says. "The more people you can telepresence with, the greater the value of that service."

Indeed. Telepresence is just one of the many examples of this.

We've also recently seen a lot of action by carrier-class Ethernet service providers to enable interconnection among different providers' Ethernet services. CENX and Equinix are a couple of examples of organizations offering carrier Ethernet exchanges.

Of course, this follows a long history of exchanges, which started with the early days of telephone systems, expanded to consortiums among cellular operators to enable roaming, and included to the formation of the MAEs and other Internet connection points for the Internet.

However, it should be noted that the Orange example is not an exchange, but rather a test involving select service providers. But, Burrell says, over time as telepresence becomes more widespread and the market matures, service providers that offer this kind of thing may expand beyond one-to-one interconnection negotiations and instead establish an exchange in which all comers can interconnect and do settlements. IT

By Paula Bernier

Industry Coalesces Around the MPLS-TP Packet Optical Transport Standard

It's no secret that IP-based traffic has been moving onto service provider networks in droves in recent years. That has led these operators, many of whom have networks initially built for circuit-switched traffic, to seek a way to support both legacy TDM traffic as well as packets – and to do it in a way that involves provisioning and management that is somewhat familiar.

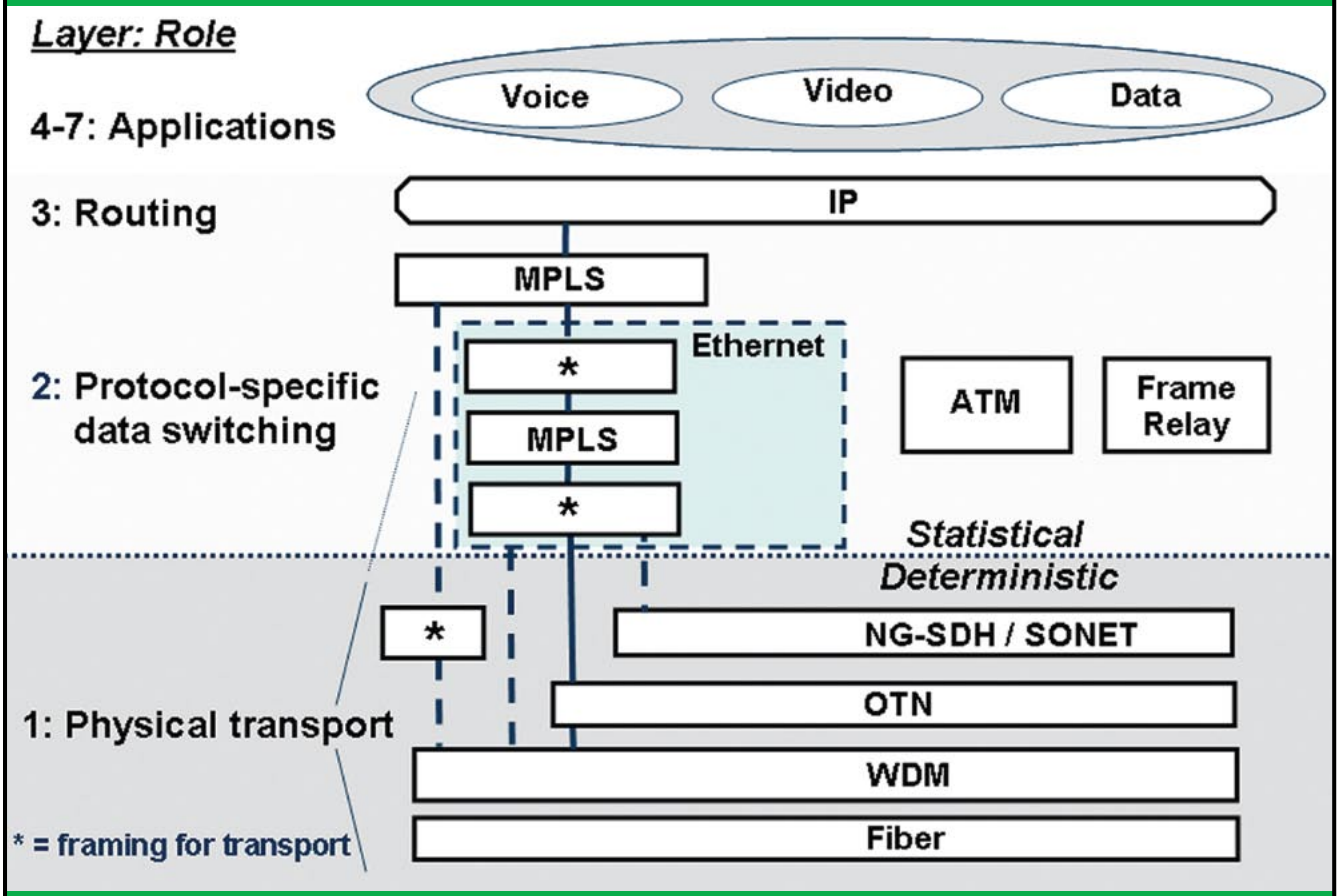
"What people were looking to do is take IP networks and simplify them so they could be managed more like traditional services," notes Andrew Schmitt, directing analyst of optical at Infonetics Research

A few years back it was looking as if PBT (or, generically, PBB-TE) was the way the industry was going to go on this. BT, a pioneer in migrating to IP with its 21st Century Network, in the 2007-early 2008 time frame was very public in its endorsement of the PBT approach, which Nortel was heavily promoting. Although BT's excitement about PBT had dried up by mid-2008, when the operator said it wouldn't be using the technology in the immediate future, PBT in the meantime built up a decent stable of supporters, at least on the optical supplier front.

But for all its early promise, PBT/PBB-TE has pretty much disappeared from the scene. Instead, a joint effort by the IETF and ITU-T called MPLS-TP is the packet optical transport standard around which the industry is coalescing.

"Many customers would like be able to set up Ethernet circuits in the same manner that they set up legacy SONET/SDH

MPLS in the Stack



Examples of inter-layer connections today in the data plane. The solid line from IP to OTN represents a long-term trend.

Source: Ericsson

GO TV

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

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leased lines," says John Messenger, director of global standards activities at ADVA Optical Networking. "PBB-TE (802.1Qay) was developed to meet this need, but operator support for it has declined rapidly, and the majority of operators are looking toward MPLS-based solutions. To meet this need, MPLS must become more transport-oriented. In the same way that PBB-TE extended the existing Ethernet standards, we believe that a transport-friendly MPLS variant should be based on, and compatible with, existing MPLS standards, so defining it as a transport profile of MPLS makes sense."

Indeed, that's exactly what MPLS-TP, an MPLS extension or subset (as it is alternately described), aims to do.

"We certainly see that MPLS-TP has now emerged as the front runner," Matthew Smith, head of optical product marketing for Ericsson, tells INTERNET TELEPHONY.

"We think this is an incredibly important standard for helping merge together networks," he adds. "This will be used on routers together with optical networks. It helps you provide a kind of end-to-end mechanism using MPLS, which is very well deployed in packet networks, in a connection-oriented manner. That means you can continue to provide the real high-quality services that operators still need to provision from their networks."

Although the raison d'etre for MPLS-TP is to enable operators to manage packet-based connections as if they were nailed-up, circuit-based connections, just how exactly operations administration and maintenance will be addressed in the standard has yet to be settled.

Once that is agreed upon, says Smith, suppliers like Ericsson will begin rolling out MPLS-TP-compliant gear. He expects the first commercial implementations by service providers of MPLS-TP to go live this year, and to be turned up in quantity starting in 2011.

According to Smith, carriers are likely to use MPLS-TP first to support the bulk of their broadband traffic, including mobile broadband and DSLAM uplinks. "They may over time start to migrate the business services over to this part of the network, but another standard – the OTN standard – is helpful for that," he says.

There are certainly different views about OTN. For example, Juniper Networks clearly is not a fan.

"What we don't necessarily agree with is that using OTN to build packet networks is the right thing to do because ultimately it's not going to scale," says Luc Ceuppens, vice president of product marketing for Juniper's Infrastructure Products Group division.

According to Ceuppens, optical vendors are promoting the use of OTN, which he describes as a circuit-based technology that's expensive, as part of their drive to MPLS-TP.

"For us, the whole thing around MPLS-TP is not necessarily around adding the extensions to MPLS as it is the drive of optical vendors to position OTN as the best technology to build packet-switched networks and also the best technology to take the cost out of the packet-switched network. We believe that is fundamentally untrue," he says. "Every network we analyze, the moment you bring OTN into that network, the cost goes up and your complexity goes up."

Nonetheless, Ceuppens says Juniper is actively involved with the MPLS-TP standard and intends to support MPLS-TP in its products. But, he adds: "We will continue to use and promote MPLS as the best infrastructure to deliver IP-based services because it is ultimately more adaptive to packet flow."

Mike Capuano, director of marketing for service provider routing and switching at Cisco Systems Inc., a key player in the MPLS-TP standards effort, says "the important thing to note about MPLS-TP is it is effectively an extension of MPLS and therefore provides a seamless interface between the part of the network where you deploy MPLS-TP and the part of the network where you have what I would call dynamic MPLS deployed.

"That, we think, is important because over time it will provide the flexibility, if a service provider so desires, to [push] more dynamic MPLS out farther, closer to the end user," says Capuano.

He adds that while delivering scalable MPLS is something that's fairly easy to put on a data sheet, it's fairly difficult to actually develop.

"A lot of folks talk about it; I think there's really a very limited set of companies that can actually deliver on it," he says. "Cisco's obviously been doing MPLS for a long, long time, well over a decade, so we're well positioned to deliver on that."

However, if a service provider has a large team of technicians who are used to provisioning things manually, that operator may be more inclined to start with MPLS-TP. If a service provider already has a converged infrastructure for which it's got a team of people that knows how to manage dynamic MPLS, that operator is more likely to go with a straight MPLS approach, which Capuano describes as dynamic MPLS (because it doesn't rely on nailed-up connections as MPLS-TP would).

"The advantage to dynamic MPLS is it's a self-managed network," he says. "The network itself is intelligent so there's less manual provisioning and calculating back-up paths and things like that."

Ericsson's Smith says the IETF and ITU-T are jointly working to make sure MPLS-TP aligns as closely as possible with MPLS "so you can have some kind of seamless connection between MPLS and MPLS-TP actually in the network." IT

> "We certainly see that MPLS-TP has now emerged as the front runner."
> - Ericsson's Matthew Smith

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By Paula Bernier

EPON, GPON Technology Continues Expansion

Worldwide passive optical network equipment revenue jumped 26 percent sequentially in the fourth quarter of 2009, driven by increased spending on such equipment in China, according to Infonetics Research. Meanwhile, some who have received broadband stimulus awards plan to use PON. And companies like Hitachi are pushing EPON solutions to the U.S. cablecos.

Worldwide revenue for the PON product category last year reached $2.18 billion, which was up 35 percent from the previous year, according to Infonetics Research. The firm expects PON equipment revenue to more than double by 2014.

"Another spike in the Chinese FTTB market continued to drive growth in both EPON and MSAP revenue, as the major Chinese operators look to pass nearly 25 million homes this year with a combination of ADSL and Fast Ethernet connections via MSAPs, which are being fed by EPON links for network-side access," says Jeff Heynen, directing analyst for broadband and video at Infonetics Research.

"Every region saw an incremental increase in DSL port shipments and revenue this quarter, though Asia Pacific was by far the biggest beneficiary, seeing a $100 million sequential revenue jump," he adds. "Meanwhile, GPON deployments also shot up this quarter, thanks to a major increase in GPON shipments to China Mobile and China Telecom, as well as continued bulk OLT and ONT shipments to BSNL as part of their 700,000-line GPON build out."

At the same time, PON is one of the technologies being employed by small service providers and other entities that will use broadband stimulus funds to build new broadband networks to users in various parts of the U.S.

PON is also a technology being considered by U.S. cable TV companies.

Jeff Stribling, vice president of marketing and customer support at Hitachi, says that his company has been pushing EPON, which he describes as a well-established technology, to the MSOs. These cable companies, he says, have a lot of CMTS gear and cable modems, and they're managing it with DOCSIS. The MSOs didn't want to have to bring in and manage a new technology, he adds, so Hitachi is offering them a 10gbps EPON solution that looks like DOCSIS.

Hitachi has done trials of this technology with some MSOs and it expects to have the first commercial MSO deployment of it this year, he adds.

In May, Hitachi announced the availability of 10G EPON and 10G DePON optical network units and line cards for the Salira product line.

"We believe that Hitachi's 10G-DePON will become the primary technology for cable operators building new high-bandwidth access networks." says Takashi Mori, president of the Salira Division of HCTA. "It has the bandwidth and features our customers need to create services today and in the future." IT

New LIGHTWAVE ONE Conference to Collocate With ITEXPO West 2010 in Los Angeles

If you'd like to learn about what else is new and important on the optical front, join us at the new Optical Networks for Enterprises (ONE) Conference and Expo Pavilion, which will be collocated with ITEXPO West 2010 Oct. 4 through 6 at the Los Angeles Convention Center.

The ONE event is focused on real-world optical communications strategies for network owners, managers and service providers.

"Collocating the ONE Conference with ITEXPO offers great synergies because of this event's history of focusing on technologies that allow service providers and enterprises to improve communications network speed and efficiency," says Susan Smith, publisher of LIGHTWAVE.

"Now that these decision makers are looking more closely at fiber optic technology than ever before, because of its greater bandwidth carrying capacity and unmatched service flexibility, it makes a lot of sense to partner with ITEXPO to add LIGHTWAVE's optical event to its lineup." IT

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http://call-recording.tmcnet.com

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By Paula Bernier

What's New and Noteworthy in Call Recording

In looking for an angle for this call recording article, I came up with a lot of little snippets of news and trend identification, all of which were interesting, but most of which are really different and not clearly related. So, rather than trying to sew them all up in a crazy-quilt kind of a piece, I've decided to offer them up in a collection of little swatches.

The High Life

As many business phones have gone high-definition, so has call recording.

SIP Print CEO Donald C. Palmer and CTO Jonathan Fuld explain that their company earlier this year released a G.722 high-definition version of their call recording solution. The company also recently came out with support for the G.729 codec, which got the company into the carrier side of the business, and G.723.

Clearly, HD call recording is an improvement upon standard-definition, says Fuld, who notes it's like "the difference between living in Scottsdale and Winslow," Arizona. (A big difference, I can assure you.)

In other recent news from SIP Print, the company's solution has gone multilingual. Specifically, it's able to offer up Web pages in Arabic, French, German, Hebrew, Italian, Japanese, Spanish and most other languages. A user in France will see the call information in French, while her counterpart in Spain will view the same call information in Spanish from the same SIP Print appliance.

A New Aspect

Aspect with release 6.6. of Unified IP has bolstered its recording capabilities with improved recording archiving, security and encryption. This allows companies to record interactions while complying with regulations, such as support for outbound recording in multiple locations.

"The new additions to Aspect's Unified IP platform address some of the key issues for contact centers," says Aphrodite Brinsmead, analyst of customer interaction technologies at Ovum. "These tools enable enterprises to simplify business processes and gain more control over distributed contact centers. Aspect continues to differentiate itself in a competitive contact center industry by focusing on unified communications and its partnership with Microsoft."

Andy Bezaitis, senior vice president of product management at Aspect, adds that the company uses direct customer feedback to ensure it's not delivering technology for technology's sake, but actually providing capabilities that will deliver significant benefits to organizations.

"Being able to deploy the solution quicker is very important, as well as delivering innovations that enable our customers to operate in a highly regulated and competitive environment," says Bezaitis. "Our focus is on ensuring that our customers have the solution they need when they need it…."

The Hat Trick

In today's economic and competitive climate, Calabrio finds a few key themes when it comes to recording. That includes reliability, mobility and speed.

Contact centers, and enterprises in general, are often highly motivated or even required by law to capture and archive calls for compliance, transaction verification or dispute resolution. In these instances, it is critical they have the reliability to ensure they do not miss a call. Calabrio provides Monitoring and Notification Alerts, which inform support staff via e-mail, SNMP or Windows Event Viewer if anything is not functioning properly. For example, MANA can be linked to call detail records in the IP PBX to trigger an alert when a call instance and a recording are not in sync.

At the same time, contact centers and enterprises are embracing mobility, or home agent workers, to increase flexibility, save money and help the environment, notes Calabrio. The company says it provides full-featured mobile agent support to record work-at-home agents with the same level of reliability as agents within the contact center. And Calabrio's architecture is such that a dedicated server is not required at every location, which saves costs and reduces the company's hardware footprint.

Tying into the speed theme noted above, Calabrio says that it provides several, time-saving recording features such as easy navigation and powerful metadata tags for faster retrieval. For example, Archive Search allows an enterprise to locate specific calls or groups of calls based on combinations of employee, agent, date, time, phone number and user-defined fields. Calabrio Quality Management, meanwhile, enables a contact center to record only those transactions that are of particular interest to the business.

The Holistic View

Customers want a holistic view of quality metrics among locations and different call recording platforms, says Bob Kelly, senior vice president of sales and marketing at HyperQuality. Seven-year-old HyperQuality can help customers with that, he says.

HyperQuality's ClearMetrix solution, which it brought to market last year and is expanding this year, is a hosted platform that provides quality monitoring on an independent basis, he says. With this solution, customers can record interactions, listen to the calls and score them all using a single tool and set of parameters.

The Whole Enchilada

Greg Sherry, senior direct of Americas marketing at Verint Systems Inc., a Melville, N.Y.-based provider of analytic software-based solutions for security and business intelligence, says five to seven years ago call recording was just for sampling for the quality of calls.

However, today, he says, most companies record 100 percent of their calls, even though it's not always a requirement. But the rise of new regulations such as HIPPA and Sarbanes-Oxley, as well as over-the-phone payments, is driving the need for more call recording. IT

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By Tom Keating

INTERNET TELEPHONY Congratulates TMC Labs Innovation Awards Winners

This is our 11th installment of the TMC Labs Innovation Awards recognizing the truly unique and innovative products and services within the VoIP industry. Over the years, TMC Labs has recognized some remarkable achievements in the VoIP and telecom space. While the VoIP industry has certainly matured and perhaps products are not as unique as they were, say, five years ago, we still encounter products pushing the leading edge by offering better performance, a slight variation in features, or a more comprehensive all-on-one solution that eliminates the need for several disparate products.

Take, for example, one winner, the Grandstream GXV3611 PoE dome camera. While IP cameras are nothing new, Grandstream's camera supports H.264 with an impressive max resolution of up to 1600x900 at 25fps. ClearOne has taken its innovative speakerphone technology and embedded it into a USB speakerphone so it can be used with the popular Microsoft OCS 2007 platform.

Choosing the most innovative products and services is always challenging, but TMC Labs carefully scrutinized each applicant and came up with the 15 most innovative companies. TMC Labs proudly bestows each of these 15 companies with a TMC Labs Innovation Award.

We're publishing details about the awards recipients in two parts to accommodate our in-depth write-ups for the winners. The complete winners list will be published in both issues; however, we will run the detailed write-ups in alphabetical order beginning with AccessLine Communications and ending with Hatteras Networks this month. Next month, we start with PhonePower and end with Transera Communications.

AccessLine Communications
www.accessline.com
Digital Phone Service

AccessLine told TMC Labs that more than 15 percent of its customers were asking to purchase a cordless phone that would work with their hosted digital phone service. After deciding to develop a DECT cordless phone product, the company knew it was important to ensure complete feature parity between the DECT cordless phones and the desk phones. The DECT Cordless phone the company developed is fully compatible with all system features including voicemail, call park/ pickup, intercom, call hold, call transfer, call waiting, multiline display and call conferencing. It's worth noting that the cordless phones are not twins of a desk phone and have their own extension, phone number and voicemail box.

The company claims to be the first hosted phone system provider to offer DECT cordless phones. AccessLine pre-configures the entire phone system (including the cordless phones), and the customer installs the phones in a few minutes. AccessLine pointed out that competitors offer desk phones with a twin cordless phone, but added that its customer research showed that customers wanted the phone to be stand alone, but still have complete integration with the full set of features of the phone system.

ADTRAN
www.adtran.com
TOTAL ACCESS 5000 platform

For decades voice was the dominant type of traffic, but today data is becoming the dominant traffic type, and as a result networks are evolving to transport data, voice and video in an integrated architecture. As customers migrate toward integrated communication and entertainment services, carriers and businesses are transitioning their networks to packet-based technologies, such as Ethernet and IP. ADTRAN explains: "Now, service providers are faced with optimizing their existing network infrastructure to support advanced services, enabling not only voice and simple broadband connections to the Internet, but more advanced services such as IPTV and Ethernet. Clearly, service providers must drive toward increased subscriber revenues through the delivery of these enhanced broadband services while simultaneously driving operational cost out of the network. This evolution requires a platform that has the capacity and scalability for these advanced services while providing a seamless migration path for existing legacy services."

ADTRAN's Total Access 5000, a carrier-class multi-service access and aggregation platform, helps solve this problem. It is designed to help service providers bridge the gap between existing and next-generation networks. It supports both legacy and emerging service interfaces over copper and fiber and can be easily scaled to support even the most bandwidth-intensive applications.

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The Total Access 5000 was the first product of its kind on the market with a pure Ethernet core – unlike traditional ATM- and SONET-based platforms, which require enormous overhead and expensive add-ons to deliver emerging services. The Total Access 5000 supports both legacy and emerging service interfaces over copper and fiber and, includes support for both TDM and VoIP switches. In addition, the Total Access 5000's Ethernet core provides a scalable and cost-optimized aggregation point in the network, with interfaces ranging from DS1 to gigabit Ethernet.

The Total Access 5000 supports a variety of access and line modules with supported applications including IP DSLAM, broadband loop carrier, fiber to the premises, fiber to the node, Ethernet aggregation and legacy service aggregation. As a broadband loop carrier, the Total Access 5000 provides converged POTS and enhanced broadband services using ADSL2+, VDSL2 and GPON technologies.

Aricent
www.aricent.com
Media EXP Suite

With the growth of smartphones with powerful processors the desire to play high-definition video content on your mobile phone also has seen dramatic growth. Aricent offers a pre-integrated and pre-optimized set of applications and middleware, along with Aricent's high-performance codecs, which enhances the end user multimedia experience across a multitude of platforms (Android, Win Mobile, LiMO, etc). Aricent's multimedia coders/decoders are a key element of Aricent's Media EXP suite, a pre-packaged software framework that enables device manufacturers to accelerate the launch of highly differentiated products for mobile TV, messaging, videoconferencing and streaming media solutions. The pre-packaged software framework reduces the development cost and complexity for vendors manufacturing a variety of consumer electronic devices such as mobile Internet devices, smartphones, digital photo frames, portable media players, and more.

Their frameworks also makes it easy to develop applications such as VoIP, video telephony, IM, DLNA-enabled streaming media players, mobile TV, photo album manager, and Internet radio. The middleware solution includes multimedia framework, IMS, file parsers, RTSP streaming, HTTP streaming, video telephony, Media Transfer Protocol, DLNA and UPnP. Aricent claims to be the first to integrate 720p video playback on a constraint device (Samsung Omnia) and the first to integrate DivX DRM in AVI file playback.

The components included in the Media EXP suite leverage the target hardware capabilities like graphics acceleration, 2D and 3D services making the solution capable of providing the best performance on the target platform. Aricent codecs are pre-optimized for multiple processors (e.g. ARM, TI, Marvell and Intel) and operating systems (e.g. Symbian, Windows Mobile, BREW, Java and Android), resulting in considerable savings in CPU processing power, which extends battery life for video recording and playback.

ClearOne
www.clearone.com
CHAT 70

One of the missing pieces to the Microsoft Office Communications Server platform is a good speakerphone. ClearOne addresses this missing piece with its CHAT 70 USB-based speakerphone. The CHAT 70 is a personal speakerphone that connects to PCs and laptops for rich, hands-free audio communication with Microsoft Office Communicator 2007. It replaces the poor-quality handset speakerphone you get with your typical desktop phone. It's plug-and-play with no drivers or software to install. ClearOne told TMC Labs: "Although the Chat 70 was not the first product introduced in this category, it raised the bar in delivering crystal-clear audio to participants on both ends of the call, and introduced HDConference, the suite of advanced audio technologies that was developed for ClearOne's market-leading professional audio conferencing products."

The ClearOne product delivers full duplex audio and eliminates echo. HDConference, the suite of advanced audio technologies, developed for ClearOne's other higher-end professional audio conferencing products, is incorporated into the CHAT 70 to give it superb audio characteristics. It leverages distributed echo cancellation on every microphone input (DSPs, not software); noise cancellation, which removes ambient room noise; and automatic level controls to keep participants' audio balanced and consistent. It also uses first-mic priority gating techniques to eliminate hollow tunnel sound.

Epygi Technologies Ltd.
www.epygi.com
QuadroM8L

Epygi's new solid state QuadroM8L appliance targets offices with 32 to 98 users and supports eight FXO trunk line ports or an ITSP with SIP trunking. Hitting the small to medium business sweet spot, the QuadroM8L delivers advanced features like call recording, conferencing, automatic call distribution and barge-in, while maintaining an affordable price point of $2,395.

The QuadroM8L is a SIP-based IP PBX that has your typical auto-attendant and ACD features for call routing, but it also has find me/follow me routing. Tools like hot desking and remote extensions provide further flexibility for offices that have a dynamic employee base. Standard features include auto attendant, unified voicemail, unified fax, free upgrades and a number of other standard features. Purchasable features include automatic call distribution for call centers, call recording, supervisor barge-in, silent agent monitoring, supervisor whisper, integrated conference bridges and a XML application programmers interface. In this way, businesses can start with the features they need and as they grow they can enable more advanced functionality.

Epygi partnered with Polycom and Yealink to bring businesses video call support for free to the SMB. In the past, this feature only has been available to large enterprise companies and was an expensive capital investment. Further, Epygi has teamed with VoIP security systems and IP-based cameras suppliers, such as Cyber Data, ITS and Mobotix, to create a completely integrated VoIP security system that will stream video through the security cameras to video handsets or cell phones.

Grandstream
www.grandstream.com
GVX3611

Grandstream's GXV3611 indoor fixed dome IP cameras are among the most feature-rich power over Ethernet IP cameras that we've encountered – and they won't break the bank either. Easily mounted on walls or ceilings, the GXM3611 cameras deliver razor-sharp image clarity and can archive video to memory or captured and archived

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using free software. Grandstream's GXV3611_HD camera includes 2-Mexapixel progressive scan CMOS sensor and advanced lens while delivering multi-rate H.264 real-time video streaming with a maximum resolution of 1600x900 and at a frame rate of up to 25fps. Using GSurf, Grandstream's free video management software, businesses can monitor and control up to 36 cameras simultaneously. The GXV3601_LL captures and streams high quality real-time video under low light conditions (as low as 0.05Lux) and up to 30fps with full D1 (720x480) or VGA (640x480) resolution. It features multi-rate H.264 video compression with excellent image quality.

Grandstream is known for its SIP phones, well they've taken that knowledge and added support for SIP/VoIP and 2-way audio to their cameras. SIP/VoIP essentially turns these cameras into smart camera phones for video monitoring and two-way audio intercom/monitoring. Live video feeds from any of Grandstream's surveillance cameras can also be routed through Grandstream's GXE502x IP PBX and streamed onto Grandstream's IP video endpoints like the GXV3140 for a completely integrated, cost-effective network solution.

In addition to the integrated microphone and speaker, it also sports a smoke detector. It also features motion detection and alert notification. A 24MB pre-/post-event recording buffer makes sure you don't miss the preceding moments of when an event/alert occurred. Lastly, you can use its Web-based graphical user interface for both configuration and monitoring of individual cameras.

Hatteras Networks
www.hatterasnetworks.com
HN6100

The HN6100 is a modular, multi-service platform designed to enable carriers to offer any service, over any media, via any port or slot, from one compact, ultra-dense chassis. The 40gbps, two-rack-unit solution's simple, flexible support for the complete range of Ethernet business services and mobile backhaul from the same pay-as-you-grow platform is a unique differentiator that enables a carrier to cost-effectively reduce its number of vendors.

The HN6100 supports Ethernet over Copper customer premises equipment via Hatteras Networks' HN400 Series, Ethernet over Time Division Multiplexing and Ethernet over NxT1/E1 via the new HN500 Series and TDM over Ethernet CPE via the new HN600 Series with PWE3-plus, Hatteras Networks' revolutionary, patented method of simultaneously transporting native Ethernet and native TDM over copper for mobile backhaul solutions. The same HN6100 multi-service chassis will also support Ethernet over fiber interfaces in the future. The HN600 delivers 10 times more bandwidth at one-tenth the cost of legacy technologies for mobile backhaul.

The HN6100 addresses the synchronization issues that are prevalent with emulated T1/E1 services. The HN6100 delivers a synchronization solution that is fast, reliable, and accurate where every interface port can be synchronized to a reference clock (including the Ethernet ports), and these same interfaces can serve as a clock source. The HN6100 is NEBS level 3 certified, temperature-hardened, and has full front access to all of its cables and plug-in modules. Its two RU-high chassis can be deployed in a central office, a controlled environmental vault, an outside plant remote-terminal, a cell site, or at the customer's premises. IT

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By Erik Linask

Building the Killer Desktop

Social media, it's all the rage. Why? If you read "Social Media and the Contact Center for Dummies," by Paul Dunay, Avaya's global managing director of services and social marketing, you'll know there are more than 400 million Facebook users, more than the population of every country in the world, save China and India (I wonder if it's possible to hold elections based on Facebook friends… but that's a different discussion entirely.)

And Twitter grew 1,400 percent (or more, if you consider mobile usage) from February 2009 to February 2010.

Ninety-three percent of respondents to a recent Cone, Inc. survey said they believe all companies should have a social media presence, and 85 percent say it should be used for interaction and engagement, not merely information dissemination. And in fact, already two-thirds of the Fortune 100 uses Twitter for direct-response customer service, according to Dunay's book, and Facebook, according to Alexa.com, is the second most popular website in the world.

So we can all agree that social media is becoming a significant part of customer communications – for more, be sure to check out the Social CRM Expo (www.scrmexpo.com).

But, if these tools and capabilities are so valuable for external communications, it follows that they should also prove effective within the enterprise, which is why so many vendors are already tackling Enterprise Social Media.

"A lot of vendors are doing enterprise social software, because informal processes and informal knowledge sharing is important," explained Milind Pansare, senior director of product marketing at Saba. "The issue is, how do you measure the social network, the social capital, the true contributions of individuals, when you have people using multiple means of communication, the results of some of which are not really quantifiable?"

Saba Live, the company's recently released enterprise social media platform, is what Pansare calls a "full fledged social platform, based on the notion of a unified user profile and including structured search," as well as Saba's real-time collaboration suite.

Aside from the business communications features delivered through Saba Live – including integration with existing e-mail software – the fundamental difference between Saba and the public social media platforms is security.

"Unlike other platforms that started with the religion that social networks should be open, we started with one that was built for enterprise and government, with fine-grained access control so everything is secure. If you define a group, only that group has visibility into your resources and messaging."

In a nutshell, Saba Live takes the features from many familiar social media sites – along with a look and feel that makes users feel comfortable – and brings it into the business environment. Importantly, because it is a secure platform, it extends the value of bookmarking beyond merely Web sites to ongoing projects materials, team resources, HR documentation, videos and audio recordings, and anything else that might be useful to team members and increase productivity.

Because these resources all are bookmarked on a user's profile, it eliminates the need for multiple people to store the data, reducing storage requirements, and also eliminates the time wasted searching for data, since it is always bookmarked. Further, the structured indexing allows even non-bookmarked content to be found quickly within enterprise data stores, based on topic, creator, content, or any other sortable criteria.

Much like social media sites allow comments, voting and other forms of approval/disapproval, Saba Live integrates an idea engine, allowing group members to suggest ideas for produce enhancements, meeting agendas, or nearly any other topic. Other group members then have the ability to weigh in and vote topics up or down, allowing popular topics to be easily identified (as well as less popular ones), quickly and effectively delivering a prioritized list of activities.

Of course, there is also Saba's live conferencing capability, which can be launched directly from within the platform, allowing users to easily and quickly engage their colleagues via voice and/or video, including content and screen sharing. Pansare believes Saba's is the first enterprise social media platform that truly integrates a full Web conferencing solution.

"What social platforms have done so far is enable asynchronous communication. There hasn't been that real time notion that makes it easy to contact team members and discuss [key topics]," he added.

The key, really, is that Saba has taken a feature set and a visual appearance that consumers have adapted it for the business community, integrating various communications media and resources into a single easy to use and manage desktop interface. And importantly, it can be extended to customer and partner groups as well, enabling secure collaboration and resource sharing.

"It's a platform for getting work done, not just for social chit chat," concluded Pansare. "It's not just about activities and what people are doing, but enables groups to securely collaborate."

And though he stopped short of calling it the killer desktop (most vendors are reluctant to talk about theirs in such terms), if you ask me, he believes Saba Live is, indeed, a prototype. IT

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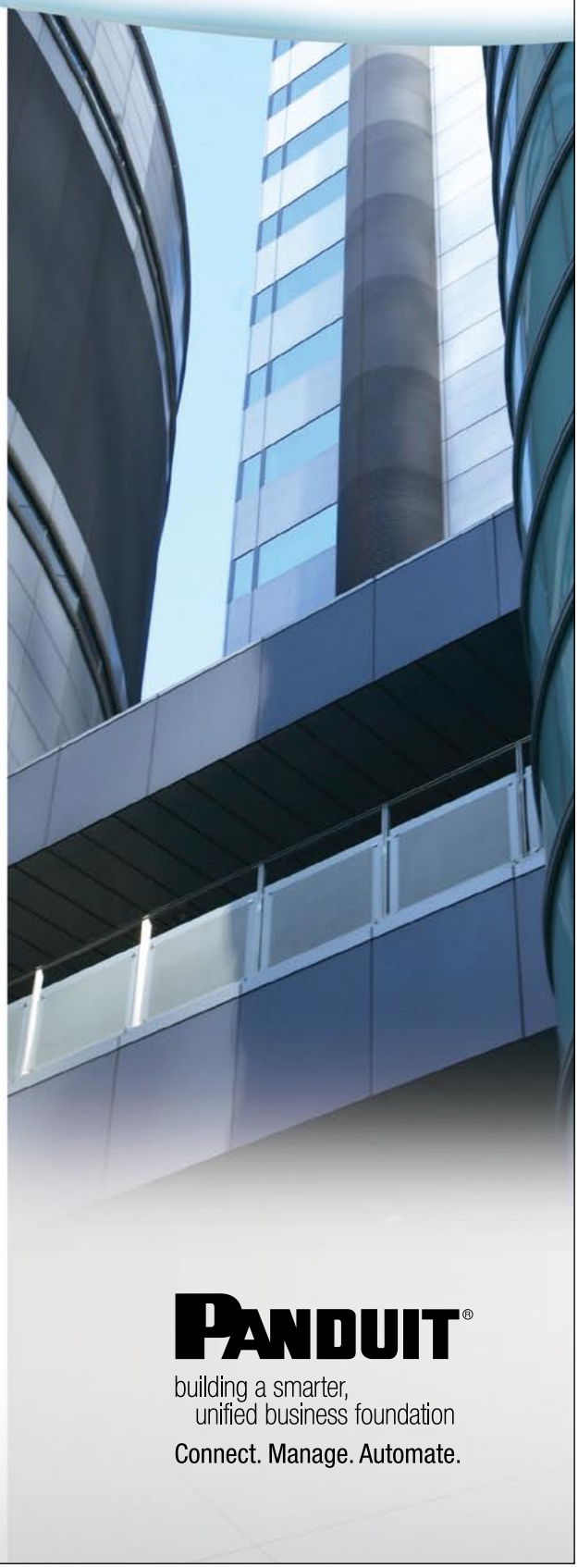

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