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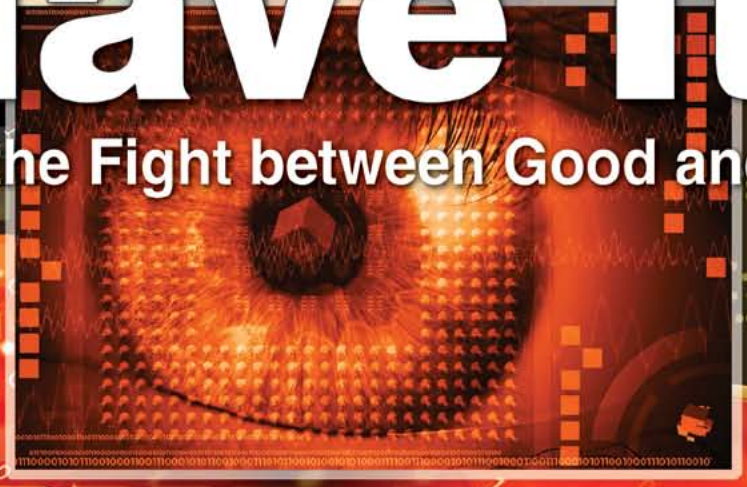

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Technology, Solutions & Spending

Communications technology is pervading virtually every aspect of our lives. That said, investment in such technology continues to grow despite our lagging economy.

According to new data from the Consumer Electronics Association, the average U.S. household spent $1,179 on consumer electronics products in the past 12 months. Indeed, my own household contributed more than its fair share to make that happen, having purchased an iPad at the onset of the summer, and a new desktop computer just as school was starting.

And the consumer electronics industry is estimated to surpass $190 billion in overall shipment revenues this year, a growth rate of 5.6 percent, which is higher than the previous projection from January. The U.S. Consumer Electronics Sales and Forecast, published in July 2011, also projects consumer electronics shipments will grow in 2012, reaching an all-time high of $197 billion.

Meanwhile, the adoption of communications technology seems to be accelerating in business environments as well, as more organizations come to understand the cost efficiencies, flexibility, productivity and creativity that can be gained from services and solutions involving VoIP, unified communication, cloud computing, etc. I use the words communications technology, but perhaps instead I should be using the words communications solutions. That's because the days of selling technology are in the past; what organizations really want is communications solutions that can help them realize all or some of the above-mentioned benefits.

At the same time, CIOs within organizations are morphing from individuals who are solely in charge of the IT staff into people who are playing a central role in driving their businesses forward. As a recent piece in The Wall Street Journal nicely puts it: "Smart CIOs are seeing that the I in their titles isn't limited to information. They are making it stand for innovation, insight, intelligence, integration and influence. Those CIOs work closely with other C-level executives and report to CEOs who expect them to play a big role in making their companies grow."

To help support all of the above, both enterprise IT staff and service providers continue to invest in network infrastructure to make our ever-more-connected personal and work lives possible.

"Recovery from the recession continues slowly and unevenly, but telecom and datacom equipment revenues continue to rise and will do so through 2015 at an overall compound annual growth rate of 5.5 percent," notes Jeff Wilson, principal analyst at Infonetics Research. "Service provider mobile and wireless infrastructure and enterprise and data center networks make up the largest portions of revenue, and growth through 2015 is fueled by a wide variety or product segments, from communications and security in the enterprise, to service provider IMS (IP Multimedia Subsystems), routing, switching, and Ethernet. We are encouraged to see growth in all but two of the markets we track within this industry."

Infonetics forecasts the overall telecom/datacom equipment and software market will grow to $209.1 billion by 2015. According to the research firm, worldwide telecom and datacom equipment and software revenue totaled $160.1 billion in 2010, up 6 percent from 2009.

Spending last year was split between service providers and enterprises at a 70:30 ratio. Infonetics believes that the breakdown will be 66 percent to 34 percent by 2015. **IT**

Analyzing Google's Motorola Mobility Move

Google this summer purchased patents as part the acquisition of Motorola Mobility – 24,500 of them to be exact. That gives the deal a $12.5 billion valuation, which puts the value per patent at $510,204 apiece. But the search giant also gets 19,000 employees on top of the 29,000 it already has.

The question is: Does Google want these employees or to manage a business that is so different from software and advertising that it makes your head spin? I recently spoke with Kris Kendrick of Sonus, who used to be with Motorola, and he sees this acquisition as Google picking up the hardware "wedge" into software.

But I just can't see Google wanting this hardware business; and if Google does want to enter this space, picking up Motorola seems odd, as the company has had management issues for more than a decade. Although Motorola has always had great technology, it has never been able to execute properly. After all, when Apple collaborated with Motorola on a cell phone, it was a flop. It was so bad, in fact, that Steve Jobs realized how dysfunctional cell phone makers were and subsequently embarked on his own phone design.

Yes, Motorola can boost Google TV. But, again, I don't see it. Does Google want to get into the low-margin hardware business, especially after failing with the Nexus one – a phone of its own design, manufactured by HTC?

It seems far more likely that Google wants to open source everything Motorola has and do it for the express purpose of having a platform across phones and televisions where it can show its ads. The best way to do this is to white label everything Motorola makes, and to OEM it all to the tech ecosystem.

With all these new patents, Google has ample protection from Oracle, Apple and Microsoft.

As Paula Bernier recently reported in *Next Gen Mobility* magazine, a new title TMC launched in September, interest in patent ownership is clearly building in the world of communications, including over-the-top service providers. That became clear earlier this year when we witnessed the battle royale for the patents of now-defunct telecommunications equipment provider Nortel. Google, which in April made a $900 million stalking-horse bid for the patents – some of which relate to the fourth-generation mobile technology known as LTE – lost out on this treasure trove of intellectual property. Apple, Microsoft, EMC, Ericsson, Research in Motion and Sony were the victors in that case, collectively winning something like 6,000 patent assets for $4.5 billion.

In the wake of the Nortel patent fight, Bernier reported, the search giant snagged about 1,000 patents from IBM. And in August Google added Suzanne Michel, a top patent lawyer at the Federal Trade Commission, to its legal team. An FTC employee for more than 11 years, Michel wrote a recent paper examining the U.S. patent system and how it could help promote innovation.

So getting its hands on more intellectual property in an attempt to protect its products and solutions from legal challenges is clearly a focus for Google.

Now that Google has purchased Motorola Mobility, the hard work begins of taking products that are generally sold to or via service providers and instead wholesale them in the hopes by taking Android to the next level and moving up market with regards to hardware design.

There are many moving parts here, and I am looking forward to seeing how Google proceeds with this major purchase. IT

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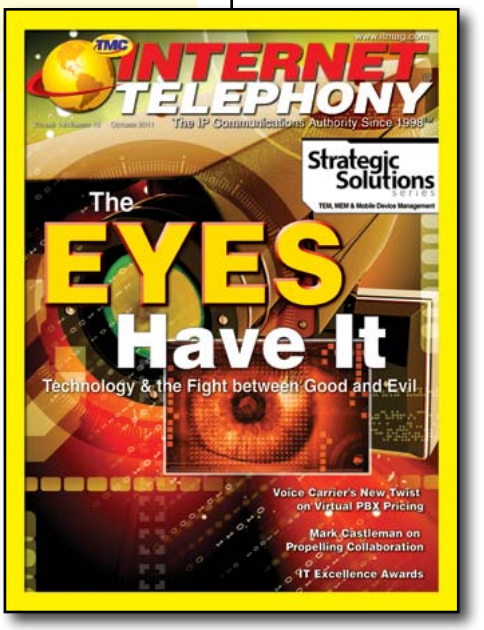

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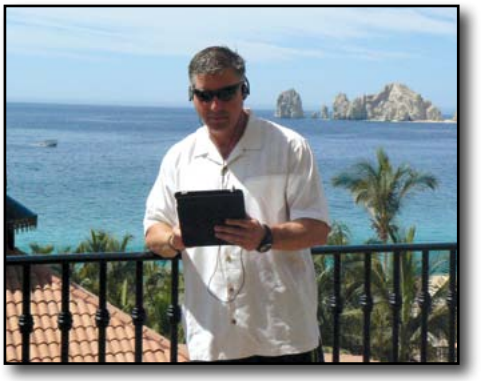

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By Ron Sege

Utilities & Telecom Partner at the 'Edge' of the Smart Grid

Opportunity is knocking for telecommunications providers the world over. The same is true for utilities. They need only look to each other.

Smart grid applications such as smart metering, distribution automation, street lighting control, renewables integration and building energy management are delivered by distributed energy control networks that thrive on interconnectedness. The hundreds of millions of elements that make up control networks worldwide, such as smart meters and sensors, must be reliably, easily and cost-effectively connected to other elements such as control nodes and to enterprise business applications – aka headends.

Telecom firms weighing the smart grid market opportunity can look just about anywhere for examples.

In Europe, Linz Strom is embracing not only smart metering but also residential demand response, street light monitoring and control, and direct command and control of specific in-home devices, leveraging a 3G wireless network to connect all of the smart grid networks and services back to the enterprise.

Rongwen, a large street lighting company in China, uses energy control networking technology to connect and control smart street lighting systems across the power line, coupled with telecom backhaul, to reduce energy use by up to 55 percent and significantly lower maintenance costs.

Students at the Harker School in San Jose, Calif., use smart meters and an energy-efficiency software dashboard to spot sources of energy waste at their school, and to measure and verify the savings achieved by acting on the new information. Local monitoring and control applications at each building leverage standard Internet communications infrastructure to provide administrators and students alike with the ability to understand energy consumption and detect energy waste from any browser.

From the utility side of the equation, working with telecoms makes sense because performance is up, rates are down, offerings are broad, and the rise of Internet standards provides long-term assurance of backwards-compatible supply.

Both telecoms and utilities benefit also from the nature of today's distributed energy control networks. Local processing and decision-making features of these networks enable the low latency that control applications require, and help minimize the load on the telecom backbone. Additionally, telecom firms are adding bandwidth at a rapid rate so there is more headroom than ever to transport growing amounts of smart grid data with no appreciable impact on the communications infrastructure.

The switch to IP by telecom firms like AT&T, Sprint, T-Mobile and Verizon bolsters the argument to add telecom to the mix of IP-based backhaul transport options for distributed energy control networks. Many utilities in Europe – where open-standard technology for carriers' communication networks is commonplace – already believe the incumbent networks deserve to be considered alongside private IP networks.

IP standards also mean that telecom companies can now offer utilities long-term assurance of interoperable communications infrastructure, overcoming limitations of earlier offerings. Even if that technology changes, there will be so much backwards capability provided that the path forward will not be compromised. Also, with IP as a standard transport, utilities are not limited to a single telecom firm.

Many telecoms now offer attractive rate plans for utilities. The economics are

Echelon's Ron Sege

simple. Telecom firms have invested in networks to keep them running all the time. But traffic slows to a crawl at night as subscribers sleep – exactly when the bulk of utilities' data transport naturally happens. The telecom firms have learned to adjust rates for utilities to reflect the fact that billing information and power quality information, for example, are being transported when the telecoms' networks are underutilized or have idle capacity.

Conditions in the U.S. are now beginning to mirror those in Europe. The combination of intelligence at the edge of the grid – which keeps data off the WAN –- and attractive pricing plans optimized for the traffic patterns of smart grid systems, provides both telecom companies and utilities with the opportunity to prosper in the era of the smart grid.

Utilities and telecoms working together can develop a smart grid that reacts in near real time to remove stress from the grid, provide consumer-facing benefits and incorporate emerging smart grid and energy-aware homes and consumer devices, as well as almost any existing metering system. IT

Ron Sege is CEO of Echelon Corp . (www.echelon.com).

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By Paula Bernier

Securing the Smart Grid

3eTI Opens Door to Conservation, Closes It to Hackers

Government leaders have long talked about the need for our nation to formulate a policy on energy conservation. Today, the government is leading by example, as federal agencies aim to reduce their energy expenses by approximately 25 percent by 2020, as compared with 2008.

That's forcing federal agencies to move to renewable energy sources and to adopt smart grid technologies that enable them to monitor their consumption, seek more energy-efficient equipment, and alter the energy use habits of employees.

One effort on that front has the U.S. Navy employing smart grid technology that involves the use of 3eTI's EnergyGuard solution. More than 100 buildings in the Navy smart grid project are currently using the company's products.

"Federal and commercial systems managers alike are faced with rigorous mandates to reduce energy consumption and costs," says Benga Erinle, 3eTI's president and CEO. "Our platform helps them make their buildings, bases and facilities 'greener' – as well as position these agencies and organizations as leaders in energy management and sustainable energy usage."

The energy expense of the Department of Defense is bigger than the budgets of most developing nations, says Erinle. That said, the DoD is obviously one federal agency that is a key target for energy reduction efforts. However, implementing a smart grid solution for an organization like the DoD isn't as simple as slapping some meters on an office wall. As Erinle explains, smart meter technology could open a door for unauthorized individuals to access critical infrastructure, so it's important such solutions are implemented in a secure manner, particularly when it involves federal government customers.

3eTI provides a universal controller that connects to smart meters in different buildings at a military installation or elsewhere, and pulls that energy consumption information into a single console. Importantly, it does it in a way that cannot be hacked. EnergyGuard from 3eTI, an Ultra Electronics company, is deployed as a network of plug-and-play sensors that connect via 3eTI's wireless mesh technology. The platform functions as a centralized repository of information, collecting, and monitoring and controlling assets such as HVAC, SCADA and DDC remotely. System monitors and controllers are all connected back to a central monitoring point via a secure IP network, reducing reliance on human resources.

As Erinle notes, the federal government and others are putting lots of money into tracking energy consumption levels at the buildings in which they do business. If consumption levels reach above a pre-set ceiling, he adds, the utility can throttle that building's consumption, he continues. That means a hacker potentially could access a smart grid meter system and populate it with information that makes it look as if the consumption ceiling has be hit, triggering the throttling effect, he says, but you don't want that to happen at a critical location such as a military installation.

"Building owners no longer have to dispatch personnel to manually check on something in a building," Erinle says. "With all the data at your fingertips, you know remotely when an issue has to be addressed and can often address the issue immediately from the central monitoring location. Or, if needed, you can quickly dispatch a technician to fix it."

While companies like Honeywell and Johnson Controls, with which 3eTI often partners, can sell organizations new, proprietary solutions with security as a component, Erinle says 3eTI can offer that security without the requirement for a whole-system change out. IT

Key 3eTI Partners

- Honeywell sells the OneWireless product, an M2M sensor solution that watches oil and gas industry assets for flow, pressure, etc. The 3eTI technology is the core of that product, serving as the aggregator of those sensors.
- Schneider Electric resells 3eTI's wireless mesh node product to service solutions sold to the DoD. The federal government is very sensitive about security of wireless networks, so requires validation of specific security implementations and Common Criteria, which has to do with the design of products and their components.
- Square D is using 10,000 of the 3eTI nodes across DoD and federal installations.

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By Paula Bernier

Alliance Foursome Partners on SEP2 Interoperability Effort

Smart energy has generated a lot of buzz in recent years, but putting all the necessary pieces in place to make it happen is no small task. To move smart energy forward, various governmental and industry groups are formulating standards and forging alliances around interoperability.

A key areas of focus on that front is SEP2, a standard profile for smart energy management in home devices that works with various IP-based technologies. The HomeGrid Forum, The HomePlug Alliance, the Wi-Fi Alliance, and the ZigBee Alliance in August created a consortium for SEP2 interoperability.

INTERNET TELEPHONY recently interviewed John Egan, vice president of the HomeGrid Forum, about all of the above.

Tell us about the SEP2 interoperability effort announced in August.
Egan: One of the goals is to develop a common set of testing plans and criteria so that uniformity and interoperability are maintained. As many times the transceiver technologies transport IP messages transparently, there may be little needed by way of modifying the standards they work under. However, as HomeGrid is focused on the smart grid as an ecosystem enabled by G.hn, we look above the G.hn transceivers and consider what will help the market and foster innovation and interoperation in the grid using G.hn-based systems, so we may come out with guidelines for HomeGrid members to assist them in ensuring SEP2 compliance at the system level.

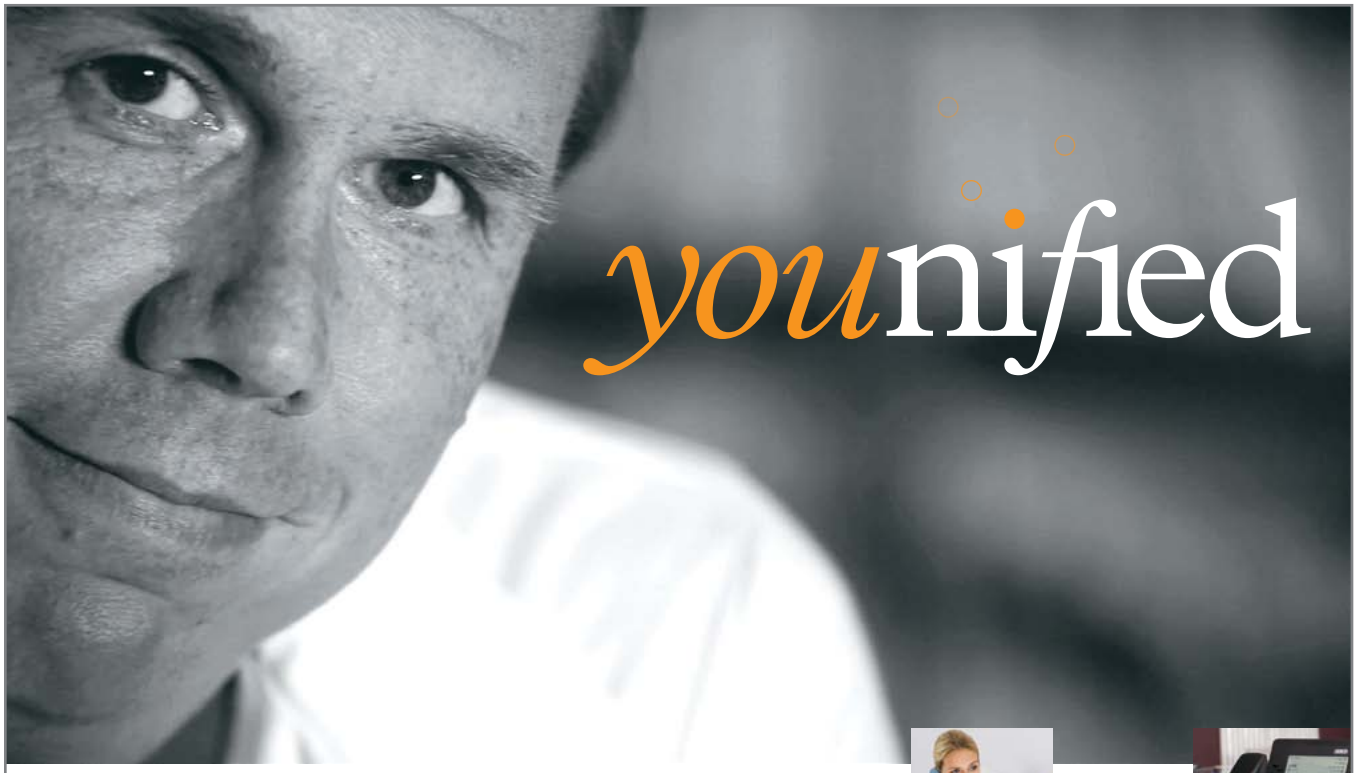
When will interoperability/certification testing commence?
Egan: This has not been determined yet. We [planned to] have a conference call [in late August] to begin working together, laying out ground rules and goals, as well as defining how other alliances can join the consortium, as we wish to be fully open to all that support the transport of IP for the smart grid.

The smart grid has been slow to take off in the U.S. Why, and what else is being done to move it forward?
Egan: There are many opinions on this. The rush to get government funding did provide a substantial boost, but then reality set in and many utilities and their suppliers realized that a lot of infrastructure work in back office systems, distribution automation, and AMI communications were required. The early deployments highlighted the lack of interoperability and the immaturity of some concepts, with refurbishments needed. This is not a typical utility activity, to install a meter and then have to go back after a relatively short period and either replace it or upgrade it. [Neither] their pricing structures nor their manpower projections take this into account. Once some found they had to take steps to go back to recently installed meters, they decided to slow down their processes in this regard to allow the technology time to catch up to the evolving requirements. Further, some technologies that have great value in the smart grid are only now coming on line, such as G.hn. With G.hn able to support smart grid activity in the home, between EV and charger, from AMI meter to head end and for distribution automation, the wait is well worth it. On top of G.hn's powerline mode handling all this, G.hn extends the ability of SG messaging to other wired mediums as well, such as twisted pair, telephone lines, and coax cable. This truly extends the options for providing a ubiquitous smart grid presence in the home, office, or utility distribution plant.


HomeGrid Forum's John Egan

You mentioned that the basic business model for utilities is also an issue here. Explain.
Egan: To have government approach a utility that has its rate calculations, and so its profit, dictated by its capital expenditures and its rate base, and instruct them to begin planning for lower consumption and no new construction, this is contrary to the profit focus for the utility. Therefore, new rules need to be considered in this area so that utilities are focused on providing low-cost energy with as little carbon footprint and minimal capital expenditures over time. We can understand that utilities may move slowly, as replacing meters is expensive and they may be using these new meters to reduce their income, and so the meter expense itself may not be covered much less ongoing operational expenses.

Where does smart grid have the most potential benefit?
Egan: Many in the industry did the number crunching and have come to realize that commercial and industrial power consumption is where the biggest savings could result as this sector consumes far more energy than residential. Once again, G.hn is being looked at as a means to provide smart grid-enabled building automation links to boost the possibilities in this sector. IT



My NetVanta® UC Story.

My name is Paul Lipscomb. I am a pediatrician and I became a doctor to help people. One of my biggest challenges is being accessible to patients not only during normal office hours but for after-hour emergencies. When an emergency call comes in it can be as simple as a concerned parent needing reassurance, or it can be something critical when seconds matter. And it's my job to find a solution.

Today, I'm proud to say that NetVanta UC is part of my solution. When that late night emergency call comes in, a parent can leave a detailed message of their child's situation. The NetVanta UC system immediately rolls their voice mail message to myself, or the doctor on duty. We get the message on our cell phones, via voice mail, text message, or email. That allows us to call right away and gives us the ability to assess their situation and provide fast, accurate feedback.

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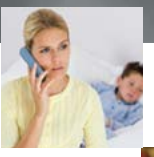
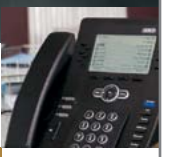
The NetVanta UC system also allows me to operate without the expensive "after hours" answering service. I can now say I can save lives and save money at the same time. NetVanta UC helps me and my patients sleep better at night.





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By Alan Murphy

Discussing the Cloud: Management, DR, Anything Goes!

Over the past year, I've hosted a number of cloud industry panels on the concerns, challenges, and (hopefully) benefits of moving applications into the cloud. I always start the panel discussion by asking for opinions on the No. 1 challenge facing an enterprise when thinking about moving to the cloud, but then each panel session takes off in a different direction based on the panel members, the audiences, and what concerns or news stories are most prevalent at the time. For example, my first panel discussion of the year focused on auditing and compliance issues with cloud storage (a good story I'll save for a future column), some panels discussed the real-life relevance of cloud bursting production applications into the cloud, others debated the pros and cons of internal vs. external clouds, and some focused on new(er) cloud models such as community clouds for vertical markets.

But the one theme that all the panel members and discussions kept circling around was how to manage this new cloud beast. It is entirely possible that I somehow directed each panel to discuss management challenges – it is my favorite cloud discussion topic, after all – or it's possible that the abstract nature of running applications in the cloud makes people start to bubble up the conversation a bit and to focus on the ins and outs of controlling all these new moving pieces. Either way, every panel discussion offered up new topics, new ideas, and new ways of solving the daily challenges facing cloud adoption.

As each panel discussed these topics and ideas, we would drill down into the technical challenges of very specific management issues, such as the lack of a common API framework for cloud provider integration or how logically and physically to separate the multi-tier application architecture – presentation, logic, and data – between on- and off-premises cloud deployments (and if that separation even makes sense).

At the same time as dealing with the technical issues, though, many people took the conversation in the other direction, out of the weeds, and to more macro management architecture issues for the cloud. Unsurprisingly there was a fair amount of discussion about how to use the cloud effectively for disaster recovery. On the surface this model seems like a gimme: Only invoke a cloud deployment in the case of last resort. With the exception of dev and test, using the cloud for DR is basically the quintessential value proposition for enterprise IT. This idea clearly shows that they are both embracing the value of cloud computing while also trying to grapple with new integrated cloud-based architectures. A data center model where all of your applications are ready to go at a moment's notice but aren't actually running until needed (and thus not consuming a tremendous amount of operating expenses while dormant) is attractive. In my mind this is one of, if not the, most compelling use cases of the cloud within enterprise IT.

Practically speaking, however, we fall back to the management challenges of such a highly available model. There are a tremendous number of moving pieces that need to be pre-built, deployed, and managed in real time for a cloud DR architecture to be successful. How will I pre-deploy virtual images on the cloud provider's infrastructure? How do I connect to its infrastructure? How do I keep image templates current to match my internal infrastructure? What about the database back-end and replication? How will my users know when and where to go to access my displaced applications? How will my provider know how to provision my entire DR infrastructure – apps, network, storage, data – when a disaster strikes if my entire primary data center goes off-line? As with all technologies, it's the minutiae that can make or break a project.

There are a tremendous number of moving pieces that need to be pre-built, deployed, and managed in real time for a cloud DR architecture to be successful.

To me, these types of discussions are the reasons I love to host and moderate technology panel discussions. They're always lively and offer an opportunity for new ideas from panel members and the audience, ideas that often start as nuggets and are flushed out into real-world scenarios during the course of the panel. Panel discussions become just that: discussions of problems and solutions rather than a standard one-way presentation. And what better topic to discuss, debate, and debunk than how enterprise IT organizations are using the cloud in the real world. It's one thing for technologists to talk about everything the cloud can and can't do – goodness knows we love to both raise and lower the hype flag – but the real stories come from the people who are dealing with these technologies every day. I pitch panel sessions at almost every conference I attend; I just need to make sure people keep talking. IT

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

By Hunter Newby

Poor Standards

By the time this article is published, it should be well known that the United States government debt rating has been downgraded by Standard & Poor's, one of the ratings agencies. It is somewhat difficult to imagine that an organization that rated Fannie Mae and Freddy Mac mortgages as AAA when in fact they were junk – which helped lead the United States and world into the most recent recession – would have any credibility left to now in turn downgrade the United States itself from AAA. This is not to say that the U.S. government is without faults and issues, but the old adage of "the pot calling the kettle black" comes to mind. Maybe it is true that the "emperor has no clothes" and everyone was afraid to say it. So, someone finally did; but in this case the one that said it has no clothes either.

Reality is that the only perfect thing is imperfection when it comes to anything that humans touch. Therefore, ultimately, no one is above judgment. All people, institutions and organizations must be held accountable for their actions or inactions; otherwise, society becomes unbalanced and unfair.

Interestingly, there seem to be those who believe they are, or in fact are, above accountability. This becomes increasingly apparent as we are all now being told that this President and government are only dealing with what they were handed from the past administrations and, essentially, "it's not their fault". That may be somewhat accurate, but by not facing the difficult issues and putting a real plan in place now and instead only "kicking the can down the road," which is what happened when the debt ceiling was raised with no agreement on spending cuts, or new taxes, it only caused this administration to do the same as the prior to the next.

This sentiment and cycle has certain similarities to the difficult, if not impossible, investment decisions that need to be made for critically necessary nationwide communications infrastructure upgrades in the United States. Over the past 10 years our infrastructure has been downgraded by the combination of sheer time, increased utilization, the accounting function of amortization and a financial return on investment (the same can be said for much of our power, sewer and bridge infrastructure as well). The fundamental problem is that the cost and time to build new network infrastructure to support the speed at which demand increases in a country the size of the U.S. exceeds that of the typical required rate of return on invested capital. Either the time horizon on the return needs to change to something much longer than 3 to 5 years, or everyone must pool their resources and requirements to justify the overall investment.

The communications industry needs to come together on a plan that addresses the status of the physical network infrastructure of the entire country and the best way to design, build, maintain and finance it. Otherwise we will be left behind as the rest of the world enjoys a higher level (AAA) of networking functionality. Coming together on a plan that works is essentially what the President, Congress and the Senate must do to restore the financial health of the entire country.

To understand the impact of the S&P downgrade on the ability for U.S. telecom companies to finance their growth just look to what the S&P equity analysts themselves say: "While the two largest companies in the telecom sector are facing distinct challenges, S&P Equity Research believes AT&T and Verizon are likely to attract investor attention this week, as they have the strongest balance sheets in the sector (A- from S&P Ratings), generate adequate free cash flow to support their dividends, yielding approx 6 percent, and have wireless operations focused on customers with strong credit profiles. However, AT&T is in the midst of closing its pending deal for T-Mobile USA that will require debt financing, while a large portion of Verizon's wireline employees went on strike this past weekend. In contrast, we think more moderately sized integrated telecom carriers such as Frontier Communications and Alaska Communications that have non-investment grade credit ratings from S&P and that pay a significant portion of the their free cash flow for dividends are a greater risk as they could be hurt more as corporate interest rates rise."

– S&P analysts Scott Kessler and Todd Rosenbluth

The communications industry needs to come together on a plan that addresses the status of the physical network infrastructure of the entire country and the best way to design, build, maintain and finance it.

So it seems that S&P's opinion of these companies all comes down to their balance sheet, free cash flow and credit rating – from S&P. This is somewhat self-fulfilling, isn't it? S&P may not have a high regard for some of them, which then in turn impacts their ability to borrow competitively and grow. But clearly even with the downgrade they have not lost confidence in all of them. The S&P downgrade has not and will not stop the United States. It only means it will now cost us more to fix our problems. But, hopefully, it has also given us the cause to face them. **IT**

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

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By Cliff Halevi

Mastering the Electro-Political Engineering of Telecom Standards Bodies

If you have ever been associated with an industry standards body, you know that there can be a lot of complex dynamics surrounding these types of organizations. Sometimes, you have black-and-white, civil war-like clarity between rival standards (e.g., GSM vs. CDMA).

However, with so many standards bodies, with some working cooperatively on similar projects while others seeming to work at cross-purposes, it can be difficult to navigate the shifting technology, business, and political machinations within each organization.

Think of it as a mashup between technology development and a political election campaign: Electro-political engineering.

Even the most-connected telecom players can be challenged with where to start, prioritizing which bodies to engage in, discerning the roles of current members within an organization, and generally determining how to best maximize their involvement. For example, a large company may have different business units that approach a technology standard from different, not necessarily complementary, angles. State or federal regulatory requirements may affect how a company approaches a standards body.

Building business alliances, collecting market intelligence, evaluating the velocity with which a standard is evolving, or even slowing down the development of a specification are just a few of the factors that must be assessed when engaging in a standards body.

Companies need accurate, reliable information with a vendor-neutral assessment of a standards body's goals, members, and accomplishments to make informed decisions on devoting resources to join an organization. More than 10 years ago, Telcordia recognized the need for a repository of telecom standards-related information and – given the company's involvement in all of the top bodies – built a standards knowledgebase offering.

Today, the Telcordia Standards Knowledgebase is a web-based subscription service with up-to-date, detailed information and analysis on virtually all of the world's major telecom standards forums, including 3GPP, ATIS-sponsored committees, IEEE 802, IETF, ITU-T Study Groups, OIF, TM Forum, as well as newly emerging standards bodies such as Femto Forum, NGMN Alliance and more.

Why is this tool so important for telecom industry players? Here are some reasons, and some of them may sound familiar:

Perspective: Standards affect companies in different ways, depending on whether you are an incumbent with well-entrenched offerings or a startup with a game changer technology. In the case of an incumbent, following the development of a technology standard not only applies to new business opportunities but also protecting an old business. If you are an incumbent that sells $30 million switches and a new player comes along with a switch with comparable features for less than $500,000 based on a new technology, you now have a vested interest in that technology standard.

Allocating resources: If your competitor devotes a great deal of resources that double the number of technical contributions to a specification and accelerate its development, you may need to respond, either by devoting more resources of your own or another course of action.

Changing nature of standards development: In the past, standards generally were developed locally then rippled out internationally. Now, a reverse effect occurs. In North America, all of the telecom standards used to flow through ATIS, then move up to the international telecom standards body, ITU-T. Delta documents would be produced to lay out the modifications between the North American and international versions.

Now, many standards are developed at the ITU-T, then released for local use. Or, standards are created by IEEE, IETF, 3GPP, etc. and are globally oriented from the beginning. The result is a global first approach to standards development that affects who participates in the standards body and the way a specification is written.

Who gets things done: When a company engages in a standards body, an important factor is identifying potential partners to help achieve its business goals. To the extent possible, companies want to find partners that possess the political networking that can get things done within the organization. A key point is that the best technology does not always win the race. The winners are usually the companies that developed the best business plan or built the necessary partnerships to help a specification coalesce.

Reporting: Reports on a body's activities must be tailored for different roles within a company. For example, there may be a person who attends the standards meeting, a corporate standards manager who deploys internal resources on technology development, or a senior executive who oversees multiple departments. All of these users access and interpret information in various ways. A knowledgebase permits different users to analyze data from their unique viewpoints.

With standards bodies, there are a lot of moving targets. Companies constantly shift; the strategies within companies constantly shift. Technologies move ahead and leapfrog each other. The Telcordia Standards Knowledgebase is the only industry offering that provides a big-picture perspective on the developments of standards bodies, helping users understand the significance of recent happenings even if they have never been to a committee meeting. IT

Cliff Halevi is director of telecom standards for advance technology solutions of Telcordia (www.telcordia.com).

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By Hongwen Zhang

Social Media Safeguarded

Firms are using more consumer-style web applications, and 84 percent of firms are increasing their use of web applications, according to Forrester. As consumer grade tools and services such as blogs, Twitter, Facebook and LinkedIn enter into the IT security landscape, companies are encountering increasing risks. Internet applications, web services and other consumer online products are swiftly distorting the lines between corporate and personal usage, while data loss and malware outbreaks are snowballing out of control.

Banning the use of consumer-style tools like Twitter, Facebook and LinkedIn by employees is no longer practical. Furthermore, interference and application control policies are turning out to be useless with dynamic user produced content and cross-site, drive-by attacks on reliable websites. All of this is compounded by the ability to gain access via multiple endpoints including mobile devices, PDAs, and tablets.

Hackers are capitalizing on the downloading of malicious content or browsing malicious sites and thereby increasing the popularity of psychological manipulation of end users by hackers through social media. Recent studies by a leading security vendor show that social networking sites are 10 times more effective at delivering malware than previous methods of e-mail delivery. To defend an organization against these socially engineered attacks, inline real-time threat protection and malware analysis of all content, including hidden injected malware attacks and downloads, is essential. Deep content inspection-based solutions with high-performance architecture and anti-malware analytical engines are capable of effectively analyzing web traffic for malicious attacks at all endpoints. This provides organizations with the comfort of knowing that they are still protected, even if their employees have been tricked.

Social networking sites are 10 times more effective at delivering malware than previous methods of e-mail delivery.

Deep content inspection-based security solutions empower organizations to take advantage of the benefits of social media, while safeguarding organizational policies and guaranteeing compliance mandates are met. The solutions offer strong visibility of the application content and the aptitude to apply flexible policies over users, applications and protocols based on the real-time comprehension of the intent of these applications.

Placing remediation-based, high-performance web security products with deep content inspection in their networks permits organizations to certify real-time security enforcement when retrieving dynamic web applications. Organizations no longer need to agonize over what is being approved when they know that malicious content is blocked and only clean content is accessible.

Traditional methods that rely on allow or block policies are now outdated since employees utilize social media for both work and non-work related activities. Alternatively, security platforms that permit clean content offer greater benefits to the organization by scanning and securing everything coming in and out of the network to protect against malware transmissions, data loss and blended threats.

Deep content inspection-based data filtering and content scanning capabilities can precisely monitor and control sensitive data transmitted in web, e-mail, and network applications, thus averting costly information leaks being transmitted through traditional or consumer-focused applications. Organizations must continue to assess the application of policies that are intended to protect sensitive corporate information being retrieved through consumer-style applications (fileshare, Gmail documents, etc.) or other social media sites.

Social media carries an array of legal risks and requires the same compliance and regulations that govern e-mail and the static web. Whether a firm allows the use of social media or not, employees continue to use these sites, opening up the company to potential compliance violations. Companies are able to expand their reach to Web 2.0 and social media in order to maintain compliance by ensuring that an organization's internal policies and archiving systems are safe. IT

Hongwen Zhang is president and CEO of Wedge Networks (www.wedgenetworks.com), a provider of remediation-based deep content inspection.

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Disaster Preparedness

By Rich Tehrani & Max Schroeder

Continuity Planning 101 – A Continuing Educational Series

A Day Late and a Dollar Short

A one-day delay in implementing a disaster recovery/response plan is going to cost a lot more than a dollar. Delays of even a few hours could be very costly, and lengthy delays could devastate a business. Yet despite today's wide array of highly evolved DR choices, delays continue to occur.

A major factor is preparedness. Hot failovers to DR sites deploy automatically, but people are not machines or robots. DR situations are rare occurrences for most organizations. Even with regular training drills, employees may be a little fuzzy on the plan details; plus they may not have the latest documentation handy. Automated alerts are incorporated in most DR plans, but in an emergency like a security breach or major disaster, some or all of those may be blocked. Plus, landline communications, mobile services and e-mails could also be compromised.

The key is to plan for the unexpected and incorporate alternative options. Consider hosted services as an option for customer premises equipment, particularly for critical business functions and communications.This is also a great way to provide for immediate and secure access to the latest DR plan documentation. If full migration to a hosted model is not an option, many service providers offer inexpensive DR back-up packages for data and popular CPE applications.

Do not forget legacy technologies. Fax has always been a key component of disaster plans and is very secure. Service providers even offer hybrid DR options for some popular fax server applications. SMS is a great communications tool but considered a security risk. However, in a recent interview with Erik Linask, William J. Marlow, the CEO/CTO of Protected Mobility, discussed how that company's ProtectedSMS product is used by organizations like law enforcement that require the highest security level. Flash drives are a good way to make sure employees have the latest DR plan documentation. They are portable and reliable, and standard password/encryption technology makes them reasonably secure.

The most critical factor, however, is to have a DR plan in place. Do you? IT

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

Regulation Watch

By William B. Wilhelm and Jeffrey R. Strenkowski

FCC Takes Another Look at E911 Rules for VoIP

In July the FCC released a Notice of Proposed Rulemaking aimed at improving VoIP E911 services. In particular, the NPRM is aimed at revising the scope of services that E911 rules should apply to, and establishing automatic location information requirements for VoIP services.

First, in an effort to broaden its regulatory authority, the NPRM asks if the definition of "interconnected VoIP" (which determines which services are subject to E911 and other FCC rules) should be modified to include outbound-only VoIP services (i.e., services that allow calls to the public switched telephone network, but not from the PSTN), services that can be used with a dial-up Internet connection rather than a broadband connection, and services that connect calls to United States E.164 telephone numbers rather than the PSTN to cover services that provide end-to-end transmission entirely over IP-based networks.

Second, with respect to ALI accuracy, the NPRM does not propose specific requirements but instead seeks comment on whether the commission should adopt general governing principles "for the development of ALI solutions." It anticipates that some of these solutions will require participation by both over-the-top VoIP providers and broadband providers that provide underlying network connectivity for VoIP calls. It also seeks information on the technologies available for ensuring location accuracy, including in indoor environments for wireless-based services.

This proceeding is the first significant review of the VoIP E911 rules since the original requirements were established in 2005. Proposed modifications to the definition of interconnected VoIP could significantly expand the commission's jurisdiction over other types of IP-enabled services that to date have gone largely unregulated by the agency, and the ALI proposals signal a new model for user location accuracy requirements for VoIP and broadband providers. IT

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

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Viewpoint: Voice of the Customer

By Elaine Cascio

Is Voice Self-Service Still Relevant?

With the explosion of new channels in the past decade, our customers are able to choose any number of ways to contact and work with us. Many experts are seeing conversations move from the web to mobile devices – a logical and organic channel shift. But where does this leave the voice channel?

For many, voice has become the channel of last resort or the channel they go to when they need to escalate an issue. Since most studies show that people view IVRs negatively anyway, how do we make voice self-service relevant, useful and customer friendly?

If callers have already struck out on other channels, don't force them into trying to accomplish the same task using voice self-service. Let them easily and quickly identify their need and route their call appropriately.

- Use automatic number identification to identify callers. If they've been through the ID process on other channels, they're going to be really annoyed if you ask them again on the IVR.
- Leverage real-time data to inform the IVR about where the caller has been recently. If I've tried to do something on the web, what was it? Can you send my partially-completed home equity application or insurance application to the agent I'll be speaking with?
- Make sure your IVR is easy to use and customer friendly. Old, stale applications, long menus and "press or say" user interfaces are huge dissatisfiers.

Voice self-service isn't dead; it's still useful to many for simple, quick-hit applications and call routing. As with all channels, knowing your callers and creating a customized conversation is critical for success. And for callers who use voice as a channel of last resort, it's even more important to create unique and personalized experiences. IT

Elaine Cascio is a vice president at consulting firm Vanguard Communications Corp. (www.vanguard.net).

Tech Score

By Jeff Hudgins

Top 3 Misconceptions about NEBS

The term NEBS stands for network equipment-building system and is a set of technical requirements that was first developed at Bell Labs with a single goal of making network telecom equipment completely fail proof. NEBS-compliant hardware ensures carriers that the equipment they buy meets clearly identified standards regarding temperature and humidity, resistance to fire, equipment handling, earthquake survivability, vibration (both in the office and when being transported), airborne contaminants and acoustic noise.

However, there are three common misconceptions when it comes to NEBS.

First, there are actually three levels of NEBS standards that provide different degrees of assurance. Level 1 is aimed at office class environments, and is intended to minimize system degradation, while Level 2 is intended for "failure tolerant services" in a controlled environment. The reality is Level 1 or 2 are rarely used, so when people refer to NEBS, they really mean Level 3, which is designed to meet the rigorous requirements that carriers need in all types of harsh environments.

Second, the equipment is often mistakenly referred to as NEBS Certified. Unlike a safety certification that requires approval by an outside agency to label the product, NEBS is a series of tests performed by an approved test lab against documented standards (GR-63 and GR-1089). The equipment is tested against the criteria and determined to be compliant or not. The test results are used later by telecom engineers to understand how the equipment will behave within their environment.

Third, designing a solution with multiple pieces of NEBS equipment does not mean the solution itself is NEBS compliant. The final solution must be submitted to the lab for testing to determine compliance to the standard. And any subsequent changes in the equipment must be reviewed by engineers to decide which tests must be performed again.

So what's the final score? If you want to ensure that your products will work in any situation, whether it is in an earthquake or a lightning strike, the NEBS standard is the right choice. Just make sure you are working with a team that understands what NEBS really means. IT

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

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By Paula Bernier

Cracking the Multi-Screen Entertainment Nut

This kind of thing has been talked about for at least a decade. The specific offering has been rumored for a year. And this quarter it's expected to become reality. I'm referring here to DirecTV Nomad.

A year ago this month media outlets reported that the DBS outfit had trademarked the Nomad name after having used the same term in surveys to describe the ability of users to view TV content across their various television, computer and mobile device screens.

During DirecTV's second-quarter conference call this year, the company's leader, Michael White, said Nomad would launch in the fourth quarter. That's according to a PC Magazine report, which said the product will allow customers to port content from a DVR to an Apple iPad.

Questioned about DirecTV's interest in buying Hulu, White reportedly responded: "We have consistently said that we want to make sure that we can make DIRECTV available anytime and anywhere our customers want it. But I think what we're looking for is … something … that would enable us to accelerate our TV everywhere, but obviously I'd say it's critically dependent on the distribution relationships that it has in the contracts that underpin that."

That "something" would seem to be Nomad.

The technology behind Nomad comes courtesy of Morega Systems, Philip Poulidis, president, founder and CEO of the company, told INTERNET TELEPHONY in a mid-August interview. "That's us, we're behind that entire solution," he commented.

Morega is a four-and-a-half-year-old company established to enable the movement of video across different platforms and screens, Poulidis explained. Service providers have long talked about three-screen strategies, of course, but content ownership and measurement concerns always seem to get in the way. (Viacom already has sued Cablevision and Time Warner Cable for making available its content, including programming from MTV and Nickelodeon, over the iPad.) However, Morega believes it has cracked that nut by addressing the concerns of content owners and aggregators.

Poulidis says one of Viacom's concerns with the cablecos' iPad efforts is that it can't measure to what extent its content is viewed on those devices. And that impedes Viacom's ability to accurately price and sell advertising slots. Shuttling content between devices also sometimes involves dropping advertisements or rendering them unviewable.

To address all that, Morega created an end-to-end content distribution system that allows users to get any content that's delivered to their set-top boxes on their iPads and/or Android devices. The Morega solution preserves advertisements in the process. And it offers the ability for service providers like cablecos, telcos and DBS outfits to provide their content partners with metrics on consumption, such as what content was viewed on which devices, when, and (if the end user allows for location identification) where.

"For the consumer, it's a huge step forward in allowing them to free their content that's currently tied to the set-top box," Poulidis says. "It gives them a lot more freedom in how they can see the content."

Morega has been engaged in trials with two major U.S. MSOs for a couple of years, Poulidis says, so other service providers could be launching soon. Morega also is working with network-attached storage outfits, and set-top box and TV manufacturers. The company's software is embedded in the sets of a large TV manufacturer in China today. IT

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By Jonathan Rosenberg

Naysaying the Naysayers of Video

On July 6, 2011, Facebook and Skype partnered to launch video calling on Facebook. This was a big step forward for video calling over the Internet, but certainly not its first step. Skype has supported video calling for many years. Indeed, Skype users make 300 million minutes of video calling each day, and 43 percent of the Skype-to-Skype calls in the first half of 2011 included video. At peak times, approximately half a million simultaneous video calls are made on Skype, with more than four thousand hours of video, on average, being transmitted every minute. That is a lot of video.

Yet, some of the feedback coming out of the Facebook/Skype video calling launch declared that it would never take off. The problem, they claimed, is that users just don't want to make video calls. For example, one writer from the International Business Times said, "It probably won't be ubiquitous, however, because it's just too intrusive and demanding compared to text communication." Another writer from 365online wrote, "Or perhaps we'll find that, video chat is a nice feature to use every once and a while... with some people... on days you're fully dressed... and are in a tidy room with nice back-lighting, but isn't really a killer feature at all."

Are they right? Will video calling become mainstream, or will it disappear as a fad?

The answer is: This is the wrong question to ask.

All too often in our industry, we look at technologies in black-or-white terms. Every now and then, there is a meme as to whether chat will kill e-mail, whether video will kill voice, or whether SMS is dead. This talk misses a very important point: Different communications modalities are appropriate choices for different types of conversations.

An interesting way to think about this is to segment the communications landscape by the type of communications experience a person is trying to have. One aspect of this segmentation to consider is the relationship the other person has with you. Are they very close to you (e.g., your mother, sister or best friend), part of a wider circle of family and friends (e.g., your cousin that you call every once in a while, or a friend you play golf with every second Saturday), or are they a functional contact that you call for a specific purpose (e.g., the pizza delivery guy or a work colleague)?

Another aspect of this segmentation is the distance between you. You can communicate with someone nearby, like your neighbor, or with someone far away, like an uncle who lives across the country.

Finally, you can segment communications experiences by their content. Are they emotional calls (e.g., discussing girlfriend problems), transactional calls (e.g., ordering a pizza) or casual calls (e.g., discussing the movie you just saw)? Certainly, there are other ways to segment communications experiences, but this three-dimensional model captures the answers to the most important questions: who, where and why.

People have a large range of choices when it comes to communicating – face-to-face, landline phones, mobile phones, e-mail, instant messaging, texting and, of course, voice and video over IP. There are even more exotic modalities like push-to-talk. For each segment of the communications experience, some modalities are more appropriate than others. For example, casual communications with a wide circle of friends and family is a great match for texting or instant messaging, though voice and even video calling can also work here. On the other hand, emotional conversations with close contacts that are far away are an ideal match for video calls, and, in fact, represent one of the most common use cases that Skype sees. Because the content of the conversation is emotional, the extra non-verbal information that video conveys is important. Furthermore, because these calls involve close contacts, people have a familiarity with reading the emotions of the person on the other end, and video becomes even more valuable.

On the opposite end of the spectrum, transactional calls with a functional contact nearby (e.g., ordering that pizza for dinner) get little added benefit from video. These kinds of experiences are short and frequently occur with people you don't know. Since there is little to no emotion involved, video adds less value. Since video usually requires some time to setup, it can even reduce the effectiveness of calls like this, where the purpose is to accomplish the task quickly and then exit the conversation. This is why push-to-talk has found a niche for this segment of the communications experience matrix – it helps reduce the time required to perform the transaction.

With this understanding in hand, it is clear that the success of video is best measured by evaluating its uptake in the communications segments where it actually applies. In simple business terms, you judge a product by its penetration in its addressable market. Only a subset of the experience matrix is really addressable by video. That doesn't make video a failure any more than one can judge texting a failure, just because people still call their parents on the phone every weekend.

As they say, the right tool for the right job. IT

Jonathan Rosenberg is chief technology strategist at Skype (www.skype.com).

Ask the SIP Trunk Expert

By Steven Johnson

SIP Trunking for Small Businesses

Lately we've seen (in Ingate's business) a surge of small businesses installing SIP trunks. SIP trunks were first adopted by SMBs that saw the cost-saving potential with shifting voice traffic to SIP. Larger enterprises have also caught on as they realized that the productivity benefits with unified communications were exceptional. UC also offers them a competitive edge.

Today SMB installations are taking center stage again, and especially smaller businesses – even those with two to five people – are tapping into this opportunity. Unlike larger companies that can negotiate with carriers for fantastic rates on traditional telephony (even down to fractions of a penny for every minute), these small shops don't have the same kind of leverage, and they find themselves having to pay much higher rates than their larger competitors. This makes SIP trunking, which reduces telephony costs significantly and often pays for itself in six months, an unbeatable deal.

While each dollar spent by small businesses has a much bigger impact than it does for their competitors, each dollar saved also has a greater impact. SIP trunks lower costs very quickly. The fact that ROI is achieved quickly as well is also very compelling for growing businesses.

Smaller businesses make up a huge slice of the industry. According to the Small Business Administration, firms with fewer than 500 employees represent 99.9 percent of the 27.5 million businesses in the U.S. For VARs, manufacturers, partners and service providers, this is an important segment to address. Products and services need to be tailored to suit their needs.

The economy has forced everyone, but especially the small business, to turn a critical eye on expenditures. SIP trunks continue to be a wise investment, not only for the immediate reduction in telephony costs but also for the potential to leverage unified communications applications in the future, with a surprisingly minimal initial investment. IT

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

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By Paula Bernier

Intuittech, Strateq Target Asia with Asterisk

Strateq Sdn Bhd has entered into an strategic partnership with Intuittech Sdn Bhd, which says it's the world's largest Asterisk solutions provider. Through the alliance, Strateq becomes the primary sales interface to market and distribute the complete portfolio of Asterisk-based telephony solutions from Intuitttech in the Asian region. Intuittech will be placing its technical and implementation team at all Strateq's regional offices starting with Singapore and Thailand this year.

"We are glad to have Intuittech added on our partner ecosystem," says Strateq's Head of Infrastructure and Technology Services Tan Seng Kit. "We look forward to working together with Intuittech to achieve a mission to revolutionize open source telephony solutions for enterprises in the Asian market.

"Together, Strateq and Intuittech will be the world's largest Asterisk telephony solutions provider," he adds. "We expect the partnership will contribute significantly to the group's revenue in 2012 and help both companies carve a bigger share in the IP telephony market, while helping us to penetrate into new vertical markets."

Tan says that the partners believe Asia will be the next big wave of growth for Asterisk.

Of course, Asterisk was created by Digium Inc. and is a key open source solution. It is currently deployed on millions of servers worldwide to support telephone services for business and individual users.

"Asterisk has made huge progress in the voice communications industry since it was introduced about 11 years ago," says Daniel Krahenbuhl CEO of Intuittech Sdn Bhd. "Its appeal keeps growing as businesses look for quicker return-on-investment and technical flexibility from their telephony investment." IT

http://tmcnet.com/59039.1

TelcoDepot Checks In

The TelcoDepot Asterisk PBX solution has been successfully installed in hotels in the U.S., the U.K., Canada, Germany, South Africa, Mexico, Switzerland, Uruguay, The Dominican Republic, Austria, Greece, Belgium, The Netherlands, Czech Republic and other destinations. The solution features PMS interface software, Asterisk PBX, IP phone and softphone. It is equipped with a MICROS-Fidelio certified Asterisk-based interface by PBillX, based on Elastix FreePBX. Recently Telco Depot unveiled a reseller support program for resellers of its TD1000/2000 VoIP Phone System.

www.telcodepot.com

http://tmcnet.com/59040.1

Askozia, Humbug Join Forces

Humbug Telecom Labs recently announced Humbug fraud detection, prevention and analytics tools. They are bundled into the Asterisk-based PBX of Askozia, which is used by small and medium sized organizations that do not normally have access to fraud prevention technology. "Hacking of telephone systems is a very real problem that costs small businesses billions annually, and it was critical for us to protect our customers," says Benjamin-Nicola Lüken, head of operations for Askozia.

www.askozia.com

www.humbuglabs.com

http://tmcnet.com/59041.1

EECS Expands with Indosoft

Indosoft Inc., developer of call center ACD software Q-Suite, has announced the successful configuration of a distributed contact center operation for East-European Communication Services. By adding another remote Asterisk telephony server to its existing contact center operation powered by Q-Suite, EECS has scaled and achieved a geographically distributed set up with operations in two locations, at Kiev and Zhitomir. The Call Center ACD and Dialer for both locations is centrally managed and controlled by the single instance of Q-Suite at Kiev.

www.indosoft.com

http://tmcnet.com/59042.1

Kaskey Talks Asterisk

OrecX manages the Oreka project on sourceforge, and has been a vocal proponent for open source projects like Asterisk. The company's Asterisk solution has grown so much in its 12 years of existence that it now rivals enterprise telephony providers like Cisco and Avaya in adoption. "Customers are looking for flexible choices [that] help drive revenue and decrease infrastructure costs," says OrecX co-founder Bruce Kaskey. "Asterisk gives you choices. Why use proprietary systems that drive your cost of ownership up?"

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Managing Transition

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

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

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By Peter Radizeski

What Makes a Good Channel Manager?

The channel manager is the front line player interfacing with the agent for carriers and master agencies. In my research for my panel at CVx Expo, I asked agents on LinkedIn and on a TCA tele-seminar what their thoughts were.

The No. 1 answer was responsiveness. Dave Wallace of Aligned Communications wrote, "The channel managers that are timely in getting not just pricing, but answers on complicated design or post-sale support issues, are the ones that get more of my customers' business."

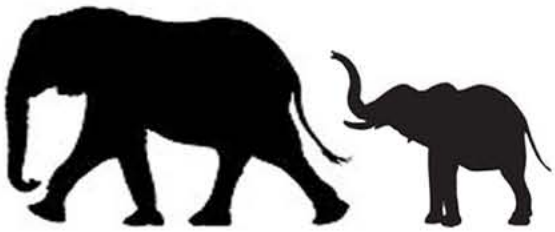
Communications and accessibility are other key ingredients of responsiveness, agrees Yvonne Fry of Lines of Communications. Today, it isn't just about voicemail or e-mail. Text, IM, even social networks are ways that CM's can communicate with agents to keep them in the know. These same avenues allow for accessibility, which leads to responsiveness.

Product knowledge is not as critical as organizational knowledge. Ian Kieninger of AVANT wrote, "They need to be experts in navigating their own company's internal processes and politics." It takes organizational knowledge to solve issues like repair, billing and channel conflict. A result of downsizing has been that many employees do not have relationships with other departments within the carrier. This could result in a hampered effort to resolve issues that can mean the difference between retaining and losing not just a customer, but an agent's business.

The distinguishing feature for a CM is cognizance that the agent's livelihood is impacted by the abilities of the CM. It is this very understanding that can lead to a successful relationship between the CM and the agent. We are in the relationship business. (All relationships rely upon communications.) Since the CM is the conduit to the carrier, the CM has to win the business – for the CM, the carrier and the agent.

The surprise is that as critical a role as the channel manager plays, there is very little training or education available. IT

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



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By Paula Bernier

Kutenda Helps Telecom Agents, IT Outsourcers Get the Word Out

Effective marketing can be a significant challenge, even for companies and individuals who have a clear idea of what they want to say. Telecom agents and IT outsourcers looking for ways to get their messages and services to the small and medium business set can get that assistance from a company called Kutenda.

Two-year-old Kutenda delivers professional services that help telecom agents and IT outsourcing outfits create and improve websites, do e-mail marketing, address search engine optimization and stage webinars, explains Kevin Brown, vice president. The company just recently rolled out the webinar service, which aims to educate SMBs on the fact that outsourcing telecom and IT is an option for them to consider and possibly event adopt, he adds. (Of course, outsourcing telecom and IT services can lower the upfront investment, ongoing support costs and overall risks for small and medium businesses.)

After unveiling the first of these offers a year and a half ago, Kutenda has been able to attract just under 1,000 customers, Brown says. Kutenda customers' spend tends to range between $99 and $799 a month.

Now Kutenda is readying a new strategy to go after a handful of new verticals with its services. Brown declined to disclose which verticals outside the telecom agent and IT outsourcer space that the company is considering, but he says the efforts will launch starting next year. IT

By Paula Bernier

ITS to Add Cloud, Wireless to Its Services Solutions Portfolio

There's a lot of talk about innovation in the world of communications these days. But you won't find Integrated Telemanagement Services Inc. on the leading edge. Instead, the data, voice – and soon-to-be wireless – provider focuses on delivering a high level of customer support and a single bill for multiple services, says Rick Minyard.

"We don't make technology, we follow the trends," says Minyard, executive vice president and minority owner of ITS. "We're kind of the pinball in the machine."

ITS may consider itself a pinball in the machine, but it makes sure its customers are not. It does that by allowing them to go through ITS as one point of contact and billing, rather than having to contract with various different service providers and receiving a pile of invoices every month. That's important, says Minyard, given the typical ITS customer buys services from multiple carriers.

Channel partners of ITS, and the company now relies exclusively on the channel as its go to market, resell the broadband services of such leading carriers as AT&T, CenturyLink (formerly known as Qwest), Covad, Level 3, PAETEC, Sprint and Verizon. VoIP services are also on the ITS menu. The company

Rick Minyard | ITS leader Sharon Woods

will soon roll out wireless services, which it is providing through a wholesale relationship with Sprint. Cloud services for backup, storage and recovery also are on the horizon; in fact, ITS already delivers such services to a couple of its customers.

Minyard says that ITS leads with data. "You have to now, you have to. Bandwidth is king," he says, adding that the company has both copper- and fiber-based connectivity offerings.

So ITS, which got its start 21 years ago as a shared service provider reselling PacBell's Centrex platform and later transitioned to being a switchless CLEC, has evolved into a multi-faceted solution provider, he says, adding its channel partners include IT professionals, interconnect and cabling vendors, among others. IT

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Pioneer Helps Device Manufacturers Free Themselves of Apple, Google

Pioneer Corp. has set aloft Zypr – a series of APIs that sit in the cloud and are aimed at making it easier for device manufacturers to connect to services in a way that makes them money and preserves their investments. John Alfano, strategic consultant with Pioneer, says manufacturers of things like cars, phones, stereos, TVs, etc., today have limited choices if they want to introduce new connected services and products. They can become an Apple peripheral, they can become a "Google slave" and lose all their differentiation, or they can create a solution themselves. Zypr is a platform that enables device makers to leverage popular apps like Facebook, Google, Twitter and the like, but without handing the keys to the kingdom over to these already powerful entities. Instead, such tools are used in the background to power voice-activated mashups that can be branded with the car company's – or what device manufacturer company's – logo, Alfano explains. That allows the device manufacturer to promote its own brand on the face of the application, generate more value from the service or application, and avoid being locked into a single vendor for its connected services, he adds.

www.pioneer-pais.com

http://tmcnet.com/59027.1

VSS Monitoring Addresses the Cloud, Video, LTE

Uptake of the cloud is booming, but how do you know everything is working as promised when your services and infrastructure are virtualized? To help organizations address that question, VSS Monitoring is upgrading its network monitoring tools to work in cloud scenarios. As a result, all existing VSS Monitoring products now fall under the vStackoverIP technology umbrella and were upgraded with cloud functionality via a new software release made generally available the first week of August. The VSS Monitoring solutions, which verify packets are not being lost or corrupted, can be used by businesses to ensure the cloud services that providers offer are delivering the level of performance that was promised. They also can be employed by cloud service providers themselves to help them deliver value-added network monitoring and management services and reports.

www.vssmonitoring.com

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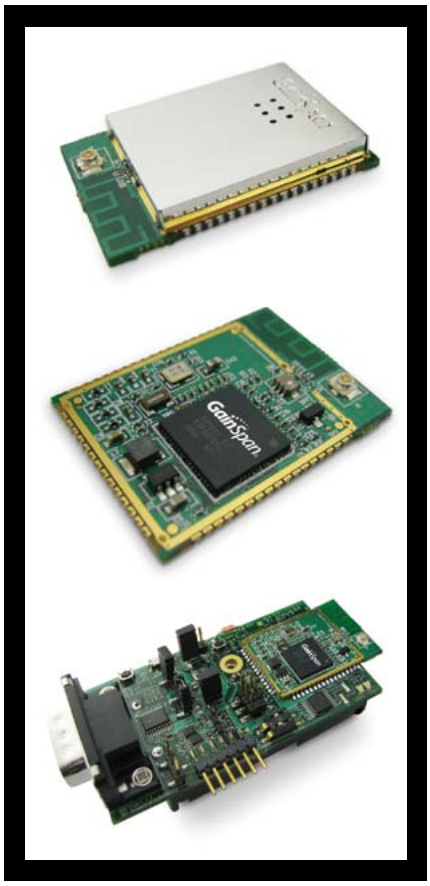
GainSpan Targets Niche Apps and More with Low Power Wi-Fi Solutions



GainSpan's technology is being used in everything from connected barbeques, to smart slippers and microscopes, says Bernard Aboussouan, vice president of marketing at the San Jose, Calif.-based provider of Wi-Fi semiconductors and modules. The five-year-old Intel spinoff enables connectivity for sensor applications and deeply embedded solutions. Aboussouan says many of these applications can be rather low volume – like in the 50,000 to 100,000 unit range, but some of the health care applications could reach millions of units. In any case, Aboussouan says, it all adds up for GainSpan, which has seen significant growth this year after last year introducing new modules to help its various customers shorten their development cycles. Also contributing to its success is the fact that GainSpan's solutions are much lower power than those of the competition, Aboussouan says. In standby mode, the GainSpan products are at less than 5 microamps, he says, adding that one of its competitors is a thousand times more. And GainSpan solutions can go from standby to awake mode in just a few milliseconds, he adds.

www.gainspan.com

http://tmcnet.com/59029.1

Logic Puzzles to Join Mobile App Stores – And There's More in Store

FunLearnENG logic games recently became available through Apple's App Store and Android Market, but the possibilities for this content go far beyond that, says Vagish Kapila, CEO of TapSmack, an investor in the effort. The word puzzles also can be used as a component of other products, such as by advertisers to support various promotions, and businesses can use the games to promote out-of-the-box thinking. Major gaming, social networking and content companies have a high level of interest in the idea of such logic puzzles, Kapila says. Going forward, TapSmack and FunLearnENG will provide APIs so these games can link into social networks such as Facebook.

www.tapsmack.com

http://tmcnet.com/59030.1

Online Fundraising Platform Nadanu Continues to Expand

Nadanu, which offers a payment gateway that helps organizations raise money online via mobile and social networks, is adding new charities to its customer lineup at a clip of 200 month. That's the word from CEO Getzy Fellig, who says Nadanu now is looking to expand beyond charities into other verticals. Fellig says that the Nadanu platform is free for charities to use, easy for donors to use, and fun for anyone to use. That's because Nadanu makes its money by taking 3.5 percent of each transaction, plus a flat 25 cents per credit card transaction. People can make donations from any device. And Nadanu makes it all more enjoyable by streamlining the form-filling-out process and bringing clever little interactive features into the mix.

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By Paula Bernier

Quickcomm CEO: More Indie TEM Outfits Will Be Acquired

Telecom expense management used to be a niche business about which players had to educate the market place. But today TEM is well understood – so well understood, in fact, that some of the world's most important telephone companies have pulled telecom expense management solutions into their portfolios. Vodafone is one such example.

A year ago this month Vodafone brought Quickcomm into the fold.

Quickcomm CEO Mark Evans says the TEM company was founded in 1997 in Sydney. Initially, its customer base consisted primarily of the Australian branches of multinational corporations. Back then, Evans explains, Quickcomm gave companies software to run themselves, but today it relies on a software-as-a-service model.

In the early 2000s, Quickcomm moved its headquarters to New York City and began to take on larger customers, including Computer Sciences, which signed on as its first big customer in the states. Evans says Quickcomm's background put it ahead of the TEM pack in the U.S. given its global outlook, which he says enabled the company to win a considerable amount of global accounts based on that strength.

Noting that there is an appetite in the U.S. for TEM as a managed service, Evans says Quickcomm after its move here partnered with BT North America and then Verizon to wrap people around the TEM software and offer it as a managed service. Verizon Business, he says, approached Quickcomm in the 2008-9 timeframe and wanted to build a TEM practice with a focus on managed mobility. Of course, he adds, Verizon Wireless is 45 percent owned by Vodafone, so Quickcomm was introduced to Vodafone in the process.

Vodafone is global, he adds, but its strength is in Europe. So Quickcomm formed a similar relationship with Vodafone Global Enterprise that it did with Verizon. Then, in October 2010, Vodafone acquired Quickcomm. Vodafone Global Enterprise had 600 named customers prior to the merger, Evans says, and Quickcomm brought an addition 20,000 customers to the table.

Most of the global carriers, including Orange, Telefonica and Telstra, now are developing TEM offerings, adds Evans, so Quickcomm is about two years ahead of the pack. Vodafone and Quickcomm have done tons of integration and make their offering really advanced, he adds. And Evans predicts that in two years all of the independent TEM outfits will be owned by bigger operations. IT

By Paula Bernier

The Eyes Have It

Technology & the Fight between Good and Evil

Communications technology played a central role in enabling the villains who caused death and destruction during this summer's London area riots. But don't despair techno citizens! Many of these same technologies are being used by government authorities to fight crime.

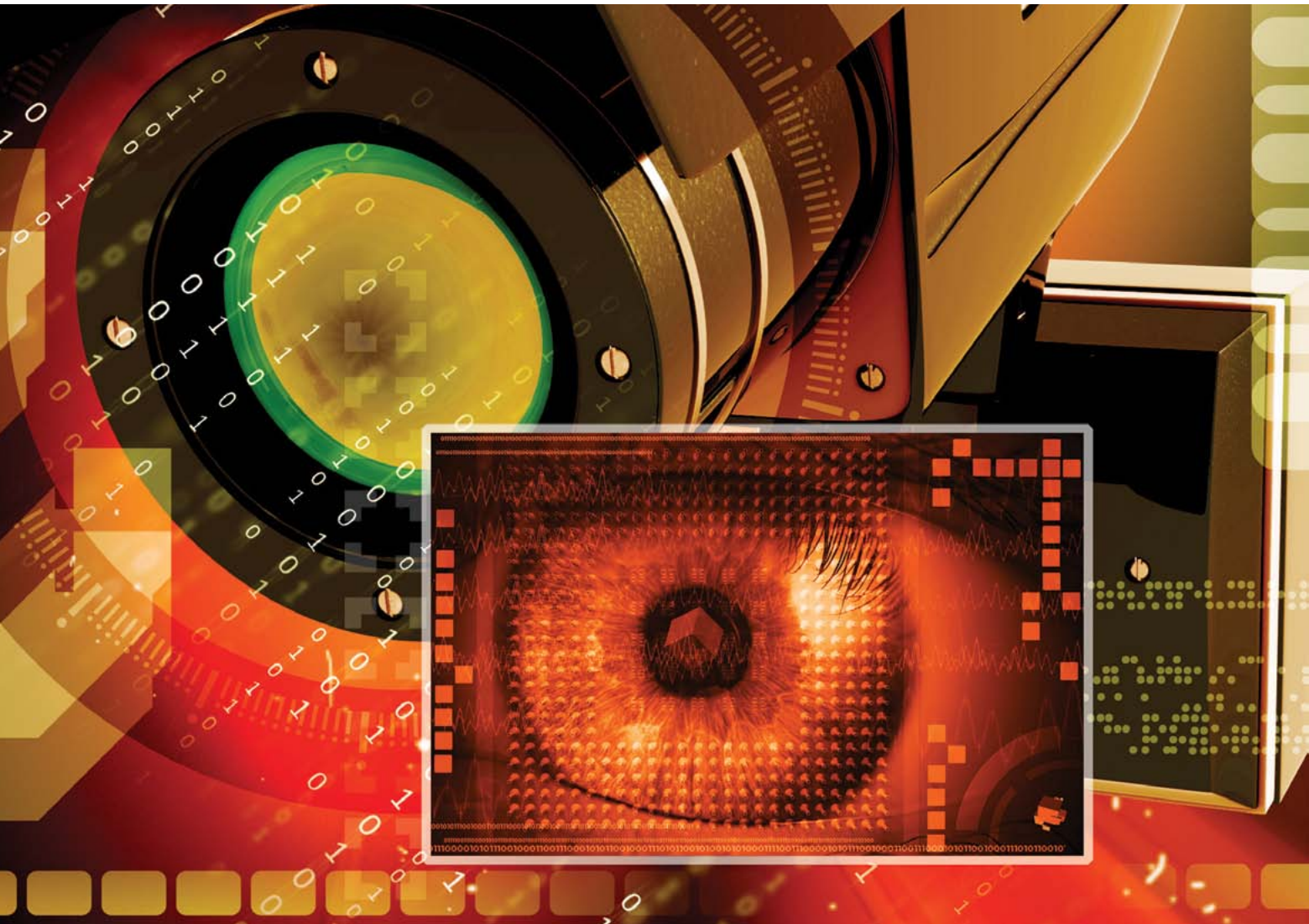
What's interesting here, however, is not so much the widespread use of social networking and video surveillance, but rather how people and organizations are using these tools.

Reports indicate that the London rioters organized the timing and locations of their vandalizing, looting and other nefarious activities using instant messages on BlackBerry devices, mobile phone texts and Twitter communications. Police, in turn, have been reviewing Twitter feeds to seek information on the individuals who fomented and otherwise were involved in the riots.

Officials are also leveraging video captured by scores of surveillance cameras stationed throughout the London area.

ABC News recently reported there are approximately 8,000 surveillance cameras in the streets of London. Other reports put the London area video surveillance camera count at 500,000, or even as high as 1.4 million. In any case, ABC reports that, "People in the United Kingdom are believed to be the most watched in the world. By one estimate, there is one closed circuit television camera for every 14 citizens, so police have countless images from the riots."

In an emotional comment during the riots, Prime Minister David Cameron said, "These are sickening scenes – scenes of people looting, vandalizing, thieving, robbing, scenes of people attacking police officers and even attacking fire crews as they're trying to put out fires. This is criminality, pure and simple, and it has to be confronted and defeated."



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Cameron added that the pictured criminals were being identified and arrested, adding, "we will not let any phony concerns about human rights get in the way of the publication of these pictures and arrest of these individuals."

Rather than relying exclusively on in-house resources to review the images captured using London's video surveillance system, authorities posted some of the images on Flickr Photostream, along with an invitation to those viewing them to call police if they can make any identifications.

David Murakami Wood, who is Canada Research Chair in Surveillance Studies, and an associate professor in the sociology department at Queen's University in Ontario, in an Aug. 10 blog wrote: "… the way [video surveillance] is being used says a lot about both the limits of CCTV and the general problem of analysis of video images.

"As part of 'Operation Withern', the investigation into the rioting, the Metropolitan Police have set up a special section of their website, London Disorder Images, as well as on Flickr, which is essentially crowdsourcing the identification of suspects," he blogs. "Despite being the most well-resourced police force in the U.K., the Met lacks the resources, time and expertise to analyze and identify everyone it wishes to identify itself, and with widespread popular anger about the riots, they are banking on opening up the process of surveillance and identification as being more efficient and effective – and they may well be right."

Wood notes that identifying individuals from images can be especially challenging if subjects are not at a good angle, not at an acceptable distance from the camera, or if lighting is less than optimal. Nonetheless, he writes, this "is a tactic we are seeing more and more in many places (e.g. Toronto, following the G20 disturbances)."

Whether or not it involves government authorities sharing captured images with the public at large, video surveillance seems to be growing in popularity.

China has announced an initiative to invest big in video surveillance in what it says is an effort to combat crime.

There's also a lot of activity around video surveillance in South America. Brazil is the largest and fastest growing market for video surveillance there, and one of the fastest growing markets globally, according to data released last year by IMS Research, which says Argentina and Mexico are also hot areas on this front.

Video surveillance has been a key tool in helping authorities fight crime during Brazil's world-renown Carnival celebration; violent crime during the festival decreased more than 30 percent after the cameras were installed in 2008. There's also been a lot of discussion about Brazil employing video surveillance for the FIFA World Cup and the Olympics. (Video surveillance is expected to be an important part of London's security strategy around the 2012 Olympic Games there as well.)

Meanwhile, more cities in the U.S. seem to be turning on to video surveillance.

Chicago has a video surveillance network known as Operation Virtual Shield that addresses aviation, fire, police, streets and sanitation, and transportation applications. The cameras provide first responders and Homeland Security officials with additional points of contact throughout the city that can be viewed during an emergency.

Even smaller locales, like the City of Longmont, Colo. (population 71,000), have city wide video surveillance.

"They're springing up everywhere," says Benga Erinle, president and CEO of 3eTI, which offers VirtualFence, an out-of-the-box wireless video surveillance and auto detection system. IT

Video Surveillance Views

By Paula Bernier

According to MarketsandMarkets, a U.S.-based global market research and consulting company, the video surveillance market is expected to grow from $11.5 billion in 2008 to $37.7 billion in 2015 at a CAGR of 20.4 percent from 2010 to 2015. Of course, that includes video surveillance for both public and private applications.

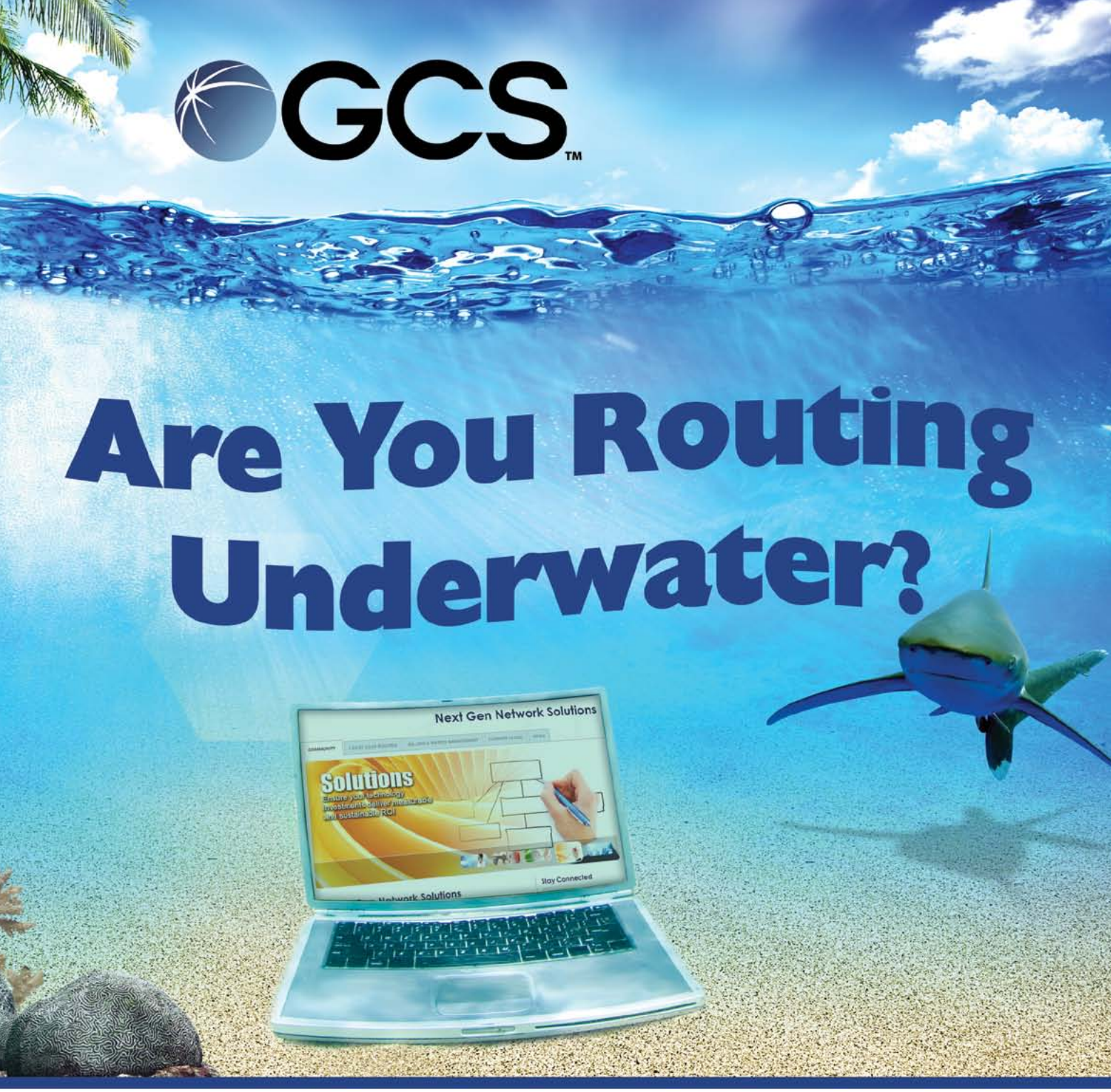
As Ruth Seigel of Grandstream Networks Inc., noted in a recent piece she did for another TMC publication, there are many applications for video surveillance solutions, including door-entry applications and remote monitoring of hospitality businesses, retail, and other locations.

"We forecast IP video surveillance product sales will increase by 200 percent total between 2010 and 2012, significantly disrupting and overtaking analog CCTV sales," says John Honovich of IP Video Market Info. "We are now bullish on the growth of IP video driven by recent widespread advances in product offering and pricing."

For example, Toshiba recently unveiled a 2-megapixel IP camera that can be mounted wherever needed without concerns about wires. The IK-WB16A-W is equipped with 802.11n wireless connectivity, which frees it from the shackles of coaxial or CAT cables.

Advances in video surveillance solutions (some of which allow cameras to be set up virtually anywhere and enable video to be viewed remotely by authorized individuals via the Internet); our society's growing focus on security; and the sense that we're living in an increasingly unpredictable world would all seem to confirm the positive outlook for video surveillance.

However, not everybody is taking comfort from the rise of video surveillance. Indeed, as governments around the world deploy cameras to watch the movements of their citizens and guests, and as dictatorial governments abroad fall (aided, in part, by social media), some are questioning what video surveillance means not just for our security, but for our privacy and human rights as well.



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By Mark Castleman

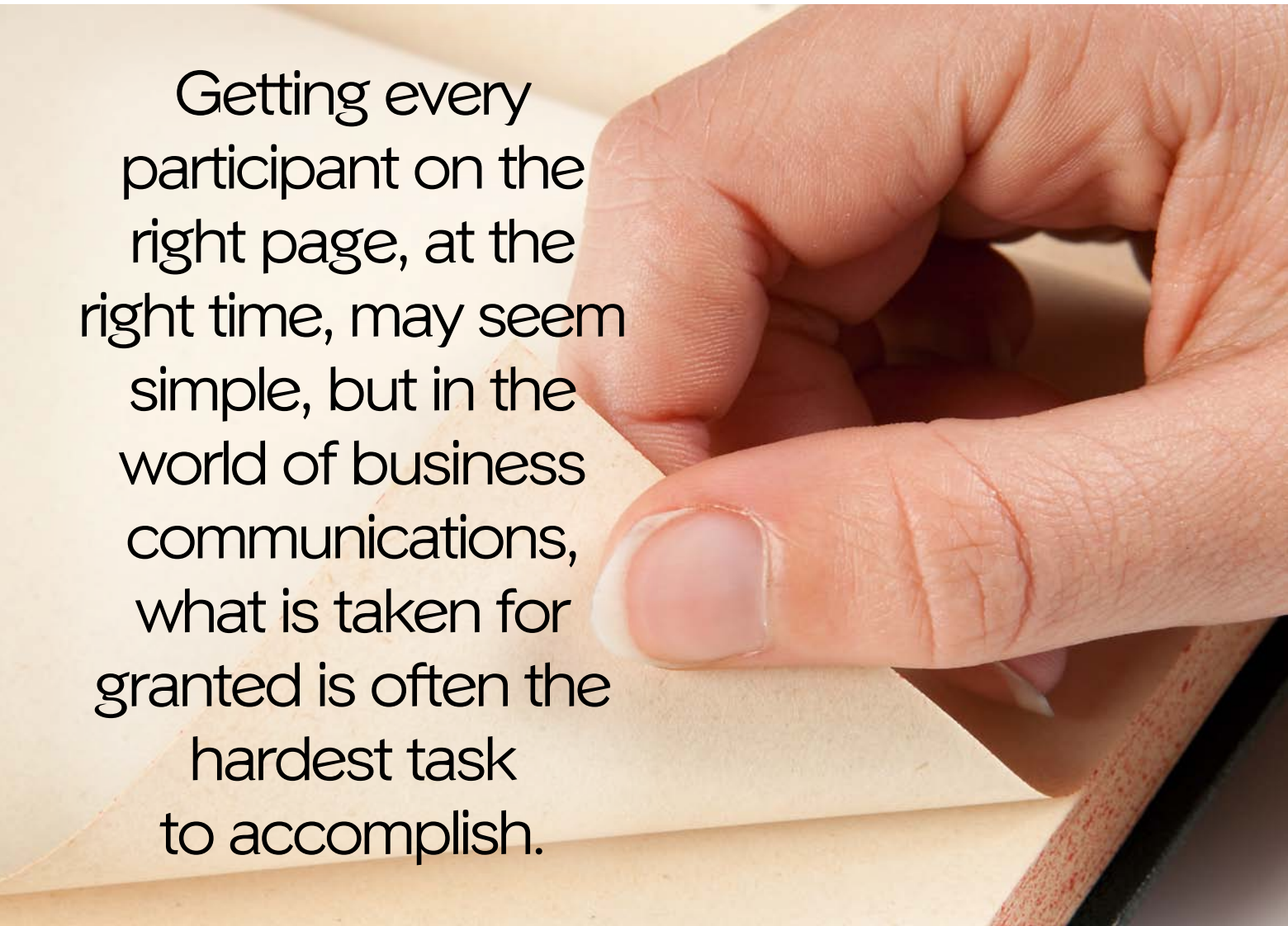
Propelling Collaboration

The Nexus of Voice, Collaboration and Social Media

For many communications technology professionals, myself included, one of the most promising and exciting IP-based technologies to enter the marketplace in the past 10 years has got to be collaboration tools. The ability to initiate and conduct video and web conference calls, share documents, and remain productive while on the road has certainly impacted many businesses and enterprises that have come to rely upon these solutions. In essence, collaboration tools have helped businesses improve a number of processes, like shortening sales cycles, improving customer service, and reducing travel-related costs. At a high level, collaboration is an impressive technology that can tangibly improve business performance.

But, when one considers the relative lack of broad acceptance of collaboration tools, perhaps it's time to take a different look at why utilization is limited, and see how to leverage the business benefits without trying to force a behavior change onto users. Just as any valuable technology continues to evolve, the culture of business, and the people that comprise that culture are also evolving at a dizzying pace. Just consider the impact that social networking and the ability to check in have had on the way people interact and communicate on an interpersonal level.

People and processes have become peering endpoints on many levels, and as social culture changes, so changes the culture of business. If you don't buy into this, just take a look at how smartphones, through the integration of powerful productivity and communications solutions, have quickly become indispensible business tools.



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The existing approach for collaboration doesn't even scratch the surface of the new mobile and always-connected culture. Nor does it really harness the extreme value of the immense amounts of data that are now available about individuals, their social and business connections, and the previously untapped collaboration opportunities available through multiple peer-to-peer relationship channels. The current focus of collaboration has been on the content that might be shared between parties – but with the new always-connected paradigm, the focus needs to shift to the contextual relationships between people, their connections, and their information.

A Cumbersome Technology

Although the pedigree of collaboration technology originates with some of the greatest providers of communications technology, including the likes of Cisco, Microsoft and IBM, it is not a simple solution suite to deploy, and an even more difficult one to get users to actually use. Most current solutions mandate that users perform multiple – and sometimes complicated – tasks to initiate a collaboration session with peers. And as anyone who has worked in an enterprise environment can attest, the more cumbersome the user interface, the greater the chance it will be ignored.

Before a collaboration session can begin, the basics must be determined: who, what, when, where, and of course why. The first activity is actually determining which colleagues are available for the collaboration session. In typical circumstances, modern day presence management tools help identify which colleagues are online and available for a chat or call. But if team members are in disparate locations, or mobile, then the promised ease of setting up a session quickly spirals out of control. Instead of efficiently solving the what and why, the manager is often left scrambling trying to locate and re-connect participants, and the value of the collaboration session is lost.

On top of the mad scramble to pull the right people into the conversation, once the actual communications portion of the session is established, there are still multiple steps that need to be performed. While some of the more advanced collaboration tools enable an administrator to control another's desktop, in most instances, each participant must locate and retrieve the correct file to participate in the session. Getting every participant on the right page, at the right time, may seem simple, but in the world of business communications, what is taken for granted is often the hardest task to accomplish.

Regardless of how intuitive, simple or foolproof providers make their collaboration solutions, the simple reality is that the majority of users still feel they are too complex and cumbersome. As a result, many enterprises remain skeptical that their employees will actually use these tools, and have chosen to remain on the sidelines regarding the integration of collaboration technologies.

Introducing Automation into the World of Collaboration

The fundamental value of automation in its simplest form is to complete simple tasks that do not require human action. This frees up the user to focus on the more heady and important parts of the process – the ones that bring value to the business at hand.

Without effective automation, it's unlikely that users will gravitate to the current processes required for launching collaboration sessions as we know them. But that doesn't necessarily mean there's a bleak future for the technology, on the contrary. The technology does indeed offer compelling productivity and efficiency benefits that most businesses need to remain competitive. But if collaboration is to gain traction and fulfill its potential, the technology needs a complete overhaul in terms of user interface and accessibility. In essence, if it's not simple, people will not use it.

Real Power: Combining Collaboration with Voice and Social Media

Though collaboration as a stand-alone solution has appealed primarily to technology-savvy businesses, the possibilities open up geometrically when it can be seamlessly linked with traditional voice communications and social network technologies. Through this triad, the setup of collaboration sessions can become automated processes that connect users by analysis of the history of interactions between colleagues and associates, as well as the files or data over


Mark Castleman

which they have some common interest or experience. In essence, the automated approach is built on contextual data that is repeatedly stored and mined whenever connected parties work together.

Powerful social network algorithms – the same technologies that enable Facebook and LinkedIn to suggest friends and colleagues – enable the collaboration platform to retrieve automatically shared documents when prompted by the initiation of a standard voice call. The platform then populates the preferred device of the user, such as a computer, smartphone, tablet, or other connected device, with folders containing all pertinent materials common to the involved parties. The user can then efficiently choose the appropriate folder and jump right into the collaborative session taking place on the conference call. It is an intuitive process that delivers the right materials to the right people at the right time.

When applied to the new contextual relationship model, the entire nature of the collaboration process changes. The network of connections and commonalities between information and people provide a rich matrix of data that can be systematically analyzed to populate a real-time landscape of pertinent peering relationships.

While the social media technology enables the confluence of voice and collaboration, it is the voice call that acts as the trigger. It is a simple, yet effective, use of three key technologies. IT

Mark Castleman is CEO of Vobi (www.vobi.co).

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By Jonathan S. Marashlian

The Future of VoIP

Regulatory Storm Clouds on the Horizon

When the Federal Communications Commission preempted states from regulating Vonage in late 2004, the entire voice over Internet protocol industry exhaled. Fears that the industry would succumb to the burdensome regulatory framework applicable to providers of traditional, circuit-switched telecommunications services seemed to subside, especially with industry supporter Michael Powell at the commission's helm.

But the industry's brief sense of relief quickly evaporated. The slow creep of regulation has been accelerating ever since; and, with the likely extension of certain FCC regulations to non-interconnected VoIP services already in queue, 2012 is shaping up to be an extremely active year on the regulatory front.

Shortly after Kevin Martin's rise to the chairmanship, the FCC adopted rules requiring interconnected VoIP service providers to offer E911 to consumers. The newly minted regulatory term, "interconnected VoIP service," was narrowly defined to include only those services that permitted consumers to place and receive calls from the public switched telephone network. Within a span of just four years, providers of interconnected VoIP services found themselves strapped with a bevy of FCC regulatory duties. Today, two-way VoIP providers must comply with nearly the identical slate of responsibilities as their circuit-switched brethren, including everything from Universal Service Fund and disability access obligations to CALEA, local number portability and numbering plan support, regulatory fees and, as of early 2009, even Section 214 discontinuance rules.

A brief respite accompanied the change in administrations, the dreaded calm before the storm. The winds have been whipping through much of 2011, and the storm clouds are now clearly within sight and moving quickly.The regulatory landscape appears headed for potentially turbulent changes in 2012.

Storm conditions arose late last year with the FCC's decision to narrow the Vonage preemption order, granting state utility commissions the unequivocal authority to impose USF (and other public interest regulations) on nomadic VoIP service providers. A number of states have already responded by dusting off existing regulations and extending them to nomadic services. Others, including California, have opened proceedings to consider adopting new regulations.

Congress also stepped into the fray in 2010 with the passage of the 21st Century Communications and Video Accessibility Act, which statutorily codifies the Telecommunications Relay Services Fund contribution duties of interconnected VoIP providers and extends the duty to non-interconnected providers. The statute defines "non-interconnected VoIP" as a service that "enables real-time voice communications that originate from or terminate to the user's location using Internet protocol or any successor protocol; and requires Internet protocol compatible customer premises equipment; and does not include any service that is an interconnected VoIP service." The FCC initiated a rulemaking proceeding to implement the statute in March.

This summer the FCC opened yet another rulemaking proceeding affecting VoIP services, wherein the commission proposes extending VoIP E911 requirements to one-way, "outbound only" VoIP services, which currently apply only to two-way interconnected VoIP providers. Outbound-only VoIP services allow users to place outbound calls to the PSTN, but not to receive inbound calls from the PSTN. The FCC has never required one-way VoIP providers to provide 911 services. However, in light of the increase in consumer access and use of these one-way/outbound-only interconnected VoIP services, the FCC appears ready and willing to expand the regulatory net to capture outbound-only interconnected VoIP service providers and require them to adhere to the same 911 mandates imposed on two-way interconnected VoIP providers.

But the bad news does not end with E911. E911 marked the beginning of the FCC's several year-long exercise of extending a host of existing regulatory requirements to interconnected VoIP services in an ad hoc, piecemeal manner. The recent notice of proposed rulemaking sets the foundation for the immediate expansion of all these existing regulatory duties not only to non-interconnected VoIP services, but to any VoIP service accessed via the Internet that allows users to connect to a telephone number.

Specifically, the FCC's notice asks whether it should revise the current definition of interconnected VoIP service to address changes in technology. In 2004, the FCC defined interconnected VoIP service as a service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user's location; (3) requires Internet protocol-compatible customer premises equipment; and (4) permits users generally to receive calls that originate on the PSTN and to terminate calls to the PSTN. The notice asks whether the FCC should modify the definition's second prong to specify an "Internet connection," rather than a broadband connection. It also considers whether the FCC should modify the definition's fourth prong to define connectivity in terms of the ability to connect calls to United States E.164 telephone numbers rather than the PSTN.

With regulatory creep beginning to escalate once again (and in an increasingly expansive manner), providers of all gradients of VoIP services might begin asking themselves if it would be less painful to just rip the bandage off than to endure another several years of uncertainty, always waiting for the next shoe to drop. In an industry and an economy in search of steady footing, the seemingly perpetual questions about the regulatory fate of VoIP services are antithetical to investment and growth. Yet that is precisely the direction in which the industry appears to be headed. IT

Jonathan S. Marashlian is the managing partner of Helein & Marashlian LLC, The CommLaw Group (www.Compliance-AsOpportunity.com), a Washington, D.C.-area law firm specializing in federal and state telecom and technology matters.

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By Marty Feuerstein

The FCC's New Action Plan: Next-Generation 911 and Indoor Location

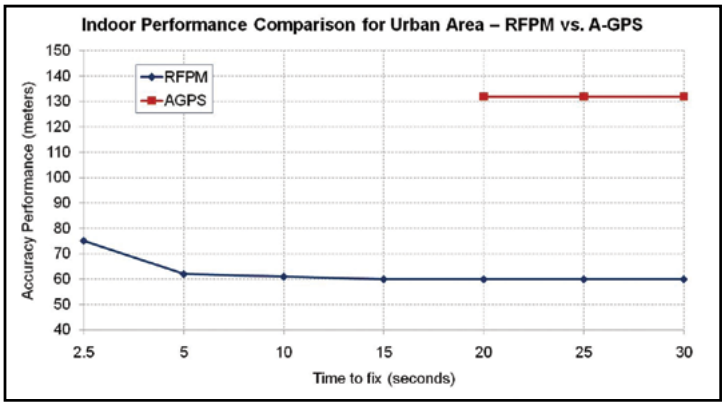
On Aug. 10, FCC Chairman Julius Genachowski announced a comprehensive plan to upgrade the technology behind the country's emergency call systems and move toward next-generation 911. Two of the primary goals behind the plan are to enable the use of advanced communications methods beyond voice, such as text, photo, and video, to contact 911 call takers; and to develop location accuracy mechanisms for NG911.

Genachowski has stated that he was motivated by the example of the 2007 Virginia Tech mass shootings, where students hiding from the gunman were unable silently to text 911 call takers, and thus avoid giving away their whereabouts by talking on their phones. At the same time, the students' location inside campus buildings would have posed challenges for satellite-based Enhanced 911 location methods, such as GPS, which require line of sight to orbiting satellites. The NG911 action plan is also a timely response to evolving consumer preferences and expanding reliance on mobile devices.

There is a strong case to be made for the integration of non-voice communications methods into the existing 911 framework. Guidelines devised for fixed-address wireline phones, or even early-generation mobile devices, are becoming obsolete in a world of smartphones, texting, and instant video and photo sharing:

- smartphone adoption in the U.S. surpassed 31 percent in early 2011 and continues to grow rapidly;
- mobile devices now incorporate advanced features like cameras and video recorders that were rare in phones only five years ago;
- younger mobile phone users have chosen texting as their preferred (and as we know, often predominant) method of communicating, with more than 54 percent texting daily;
- and the growing reliance on social networks has resulted in the expectation that voice is merely one aspect of a complex communications web, and often secondary to text or images.

In addition, mobile location methods have improved significantly in recent years, with technologies such as RF pattern matching able to locate devices indoors with high accuracy, warranting the review of location accuracy mechanisms for NG911. The precursor to this review was the September 2010 FCC Further Notice of Proposed Rulemaking, which required wireless operators to deliver county-level location accuracy compliance (prior to this, operators could aggregate results across their entire networks, balancing performance in urban and rural counties). The FCC's first exclusion deadline related to the FNPRM rules passed on July 28, with no wireless operators requesting exclusions for urban counties. The exclusion requests were all for rural counties where, due to sparse populations and lower densities of cellular towers, even basic location methods such as triangulation are unlikely to produce high-accuracy location estimates.



With the new action plan calling for the development of location accuracy mechanisms for NG911, such as a testing methodology to measure indoor location accuracy, many wireless operators may find themselves without an effective way to locate with high accuracy NG911 calls that take place indoors. This is a vital issue because more than 60 percent of all mobile calls take place indoors, and over 25 percent of U.S. homes rely on mobile phones as their only means of telephony.

An indoor-location requirement will present a particular problem for wireless operators that rely on GPS, which, as stated above, relies on unobstructed satellite signals to determine location. GPS produces less accurate indoor location information, and takes longer to fix on a target. Of the two commonly deployed terrestrial location methods (U-TDOA and RFPM), RFPM is alone in providing high accuracy indoors without expensive and time-consuming radio-hardware changes to the network, and is capable of locating any device on the network, critical to life-or- death applications like 911.

The FCC now plans to address the practical and technical issues around NG911 and examine whether there exists adequate broadband infrastructure to deliver the necessary bandwidth required to transport NG911 communications. There is also a commercial factor to consider. By requiring indoor location accuracy, the FCC could indirectly spur the development of location-based services that leverage this enhanced capability, driving new business models for wireless operators and other players in the wireless location eco-system.

In many ways, the move to include indoor location requirements for NG911 mirrors the initial activity around VoIP and NG911. In both cases, the FCC was prompted to respond to market developments with rapid adoption of new technologies, which the existing 911 system was not designed to address. The mission-critical nature of 911 requires the FCC to be aware of leading-edge capabilities to make an informed decision about when the new technology has reached critical mass to necessitate changes to 911 regulations. That time has arrived for indoor location. IT

Marty Feuerstein is CTO of Polaris Wireless (www.polariswireless.com).

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Are You Hiding from Emergency Responders?

If your organization doesn't actively manage E911 location information you are increasing the odds that an emergency responder may not be able to find a 911 caller in need quickly enough to help.

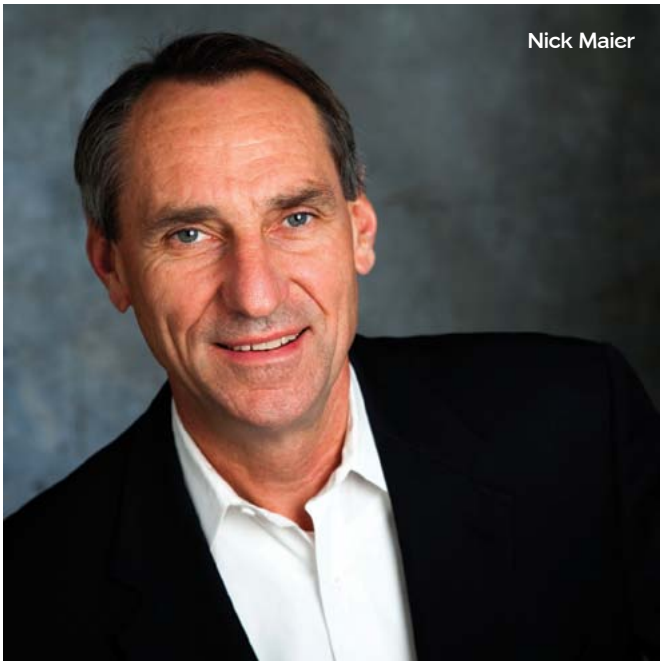
It's that simple.

What should be a no-brainer component of an enterprise workplace safety plan is too often overlooked or, worse, consciously passed over. This isn't a technology problem; a wide range of hardware, software and cloud-based E911 solutions exist to address the issue. More often than not, it's a business decision.

We often speak in terms of risk management when talking with organizations about improving their E911 protection. And, there are compelling facts that support this discussion, such as that failure to provide E911 protection to employees could result in regulatory fines.

The Occupational Safety and Health Administration, for example, could penalize an employer for failing to implement E911 under Section 5(a)(1) of the Occupational Safety and Health Act. Also known as the General Duty Clause, it requires employers to furnish a workplace that is free from recognized hazards which may cause or are likely to cause death or serious physical harm. OSHA may also reject an employer's emergency action plan if E911 is not included. Penalties for violating OSHA can run from $7,000 to $70,000 per day per employee.

It is a common occurrence in large enterprises for emergency responders to arrive in the lobby of a building in response to a 911 call. Many times the security or lobby staff is unaware that a 911 call was made and therefore unable to provide the location of the caller. These occurrences are well known by the telecommunications and security staff, and the corporation's conscious choice not to fix a potentially harmful situation exposes it to legal action outside of workers compensation that could result in a multi-million dollar damage verdict.


Nick Maier

All that aside, isn't providing a safe workplace the right thing to do? At the risk of being repetitive, it's that simple. IT

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

It is a common occurrence in large enterprises for emergency responders to arrive in the lobby of a building in response to a 911 call. Many times the security or lobby staff is unaware that a 911 call was made and therefore unable to provide the location of the caller.

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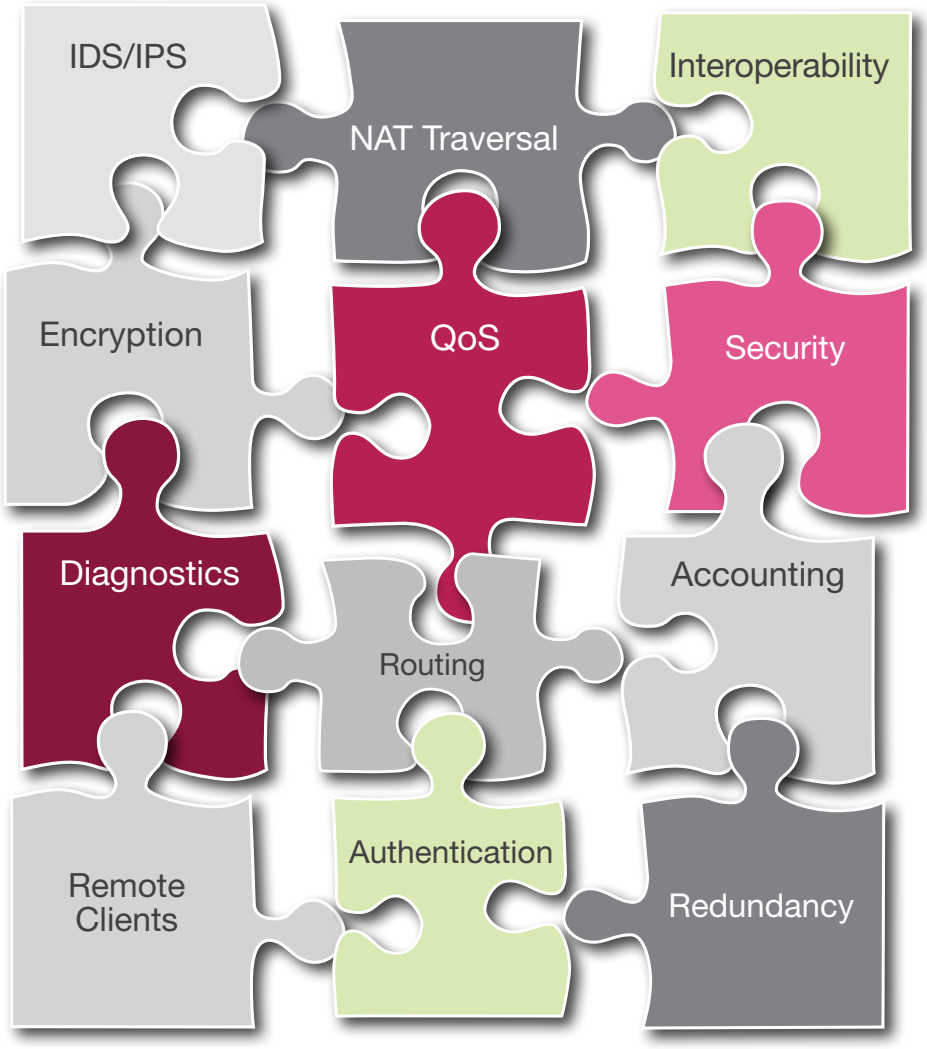

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By Paula Bernier

TMC Congratulates 2011 INTERNET TELEPHONY Excellence Awards Winners

TMC, the parent of INTERNET TELEPHONY and a global, integrated media company helping clients build communities in print, in person, and online, is proud to announce the winners of the 2011 INTERNET TELEPHONY Excellence Awards.

These awards recognize the creators of technology that demonstrate leadership and innovation to the global industry. As part of this awards effort, INTERNET TELEPHONY recognizes companies whose products have shown improvements in its clients' business and honors the best IP communications solutions in the world.

"The INTERNET TELEPHONY Excellence Awards were created to honor companies that have created products and services that excel in the IP communications industry," says TMC CEO Rich Tehrani.

As part of the application process, companies provide case studies of IP communications success experienced by one of their clients after operating the product/service over the past year. IT

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INTERNET TELEPHONY

By Paula Bernier

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Mobile communications is growing by leaps and bounds in consumer circles as well as in the workplace.

Worldwide sales of mobile devices to end users totaled 428.7 million units in the second quarter of 2011, a 16.5 percent increase from the second quarter of 2010, according to Gartner, Inc. The research firm forecasts that worldwide mobile connections will reach 5.6 billion in 2011, up 11 percent from 5 billion connections last year. IT research firm Forrester, meanwhile, tells us that 73 percent of the global enterprise workforce will be mobile users by 2012. That means the 187.9 million mobile users in 2008 will expand to a whopping 397.1 million individuals in 2012.

The ability for workers to communicate using Android Smartphones, BlackBerries, iPads, iPhones and other mobile devices is great news for productivity and employee flexibility, as it enables people to get the job done whenever and pretty much wherever they want. At the same time, however, the mobile boom creates new challenges for organizations.

Many IT and telecom staffs, and executives, are grappling with how to manage and secure their networks and businesses in light of the onslaught of new, mobile devices. The bring-your-own-device trend, which has employees using their personal mobile phones and tablets for work-related tasks, and the fact that there are so many different kinds of mobile endpoints out there, only compound these challenges. The mobile boom also means organizations are increasingly looking to manage expenses related not just to wireline, but to wireless devices and services as well. And ABI Research in a recent report indicates that wireless expense management is due to become a key issue for business IT departments. Indeed, for many businesses it has already.

To address all that, Amtel offers a single platform that delivers mobile device management, and telecom expense management, including mobile expense management.

"Our solution can address expense management and device management – all from the same platform. That helps with ROI," says Karlyn Gonzalez, Amtel manager. "With our competitors' systems, customers need separate expense management and device management solutions – so customers have to learn how to work with multiple systems."

Amtel's TIMS platform, however, includes a broad range of functionality. It enables invoice management, inventory management, device security management, procurement portal, mobile policies, contract management, and dispute management and reporting of telecommunication services for global enterprises. Organizations can use the solution to implement adds and changes related to mobile devices, mobile plans and even mobile carriers; to track their wireless and wireless expenses; and much more, says Gonzalez. Clients typically eliminate 10 percent to 40 percent of their mobile expenses as a result of using Amtel TIMS.

"Our mobile services expenses were rising exponentially with 2,400 active devices," says one Amtel customer. "With Amtel, we are able to input mobile policies, keep a clean inventory, handle all orders, allow end users to watch their overages, and manage invoice allocations at a fraction of the cost."

Amtel earlier this year added to the TIMS platform an integrated SaaS-based Telecom/Mobile Expense Management & Mobile Device Security Management Solution. That enables users to set security password and e-mail settings; approve and restrict particular mobile applications in the business setting; detect and quarantine jailbreak, rooted devices; and remotely wipe and lock devices (if, for example, an employee loses a wireless device containing confidential business information) . It also allows for 411 directory assistance saving; provides alerts related to international calling and roaming; and does GPS location and lost device tracking.

"The popularity of mobile apps is putting an extra burden on corporate mobile billing," says Pankaj Gupta, co-founder and CEO of Amtel. "Companies are struggling to find ways to implement mobile policy and segregate the individual apps spend from the allowable corporate usage policy."

Amtel's TIMS solution can be configured to segregate personal employee usage charges from the acceptable corporate spend. Gonzalez adds that the Amtel platform can also be leveraged to prompt users when they're close to hitting their mobile plan's usage limits.

Customers can opt to use the Amtel solution internally or turn over device and expense management entirely to Amtel.

"For our global telecom network, we had a tough time matching invoice charges to various circuits and mobile phones," says an IT analyst at a chip company using the Amtel solution. "Amtel helped us initially by cleaning inventory and performing invoice audits. Their TIMS platform provided an interface to manage our telecommunication services on a day-to-day basis along with invoice cost allocations. The savings generated have led to a positive ROI."

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By Paula Bernier

Voice Carrier Offers New Twist on Virtual PBX Pricing

There are plenty of virtual PBX solution providers in the market place. Sorting through them all to find the right one for your business needs can be a challenge. But a company called Voice Carrier has a special approach to pricing that can result in significant savings for businesses, while at the same time outfitting them with highly reliable and feature-rich solutions.

"Our core market differentiator is our unique pricing model," says Voice Carrier President and CEO Gary Johnson. "We customize our pricing for the customer, vs. having a set of basic prices in a price list. We allow the customer to have as many extensions as needed and only charge for the concurrent or simultaneous calls [the business] signs up for."

A key tenet to Voice Carrier's pricing model is that it charges by the concurrent call rather than on a per-line basis. That means if a business has phones in every room, but some of those phones are rarely or never used, it doesn't get charged for them. Rather, customers are charged based on the number of people on average on the phone at their organizations. That means Voice Carrier might charge for 10 phones instead of 20 phones, for example, and work with the customer to adjust up if that customer significantly exceeds the expected average on a regular basis.

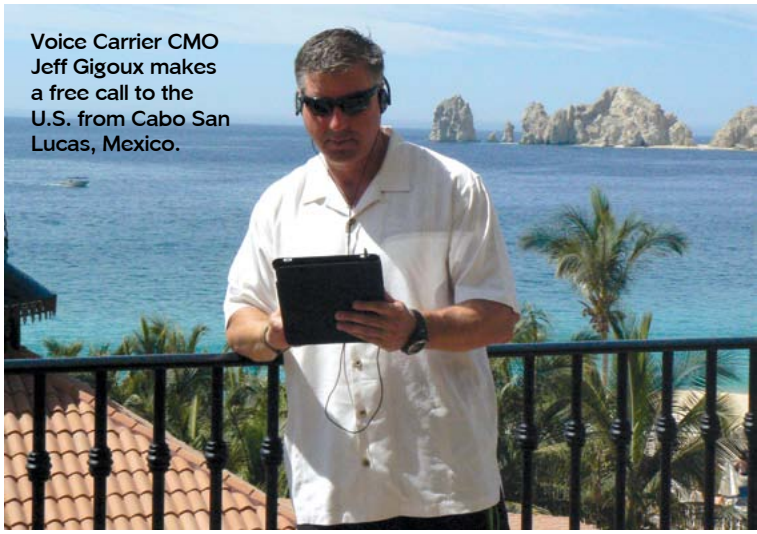
That, paired with the benefits of hosted PBX, resulted in a winning combination for such customers as OJAS Enterprises.

"Voice Carrier Office enables us to put all our employees in the U.S., India and China on a single hosted PBX, which enables us to communicate just like everyone is working in the same office," says Samir Patel, president of OJAS Enterprises, a high-volume import/export wholesaler. "Before Voice Carrier, we were spending hundreds of dollars every month making international phone calls, but now we just dial a three-digit extension to speak with our people anywhere in the world."

"As my business grows, I can just add more lines," Patel adds. "We walked away from a $30,000 on-premises PBX, but with the savings and convenience provided by the Voice Carrier hosted PBX, the conventional PBX is no match. Voice Carrier's service has been absolutely great, and our phone bill has decreased by almost 70 percent."

Voice Carrier's business model also allows customers to pair an extension with multiple SIP clients. That enables employees to leverage the solution on the go using mobile devices such as iPads or smartphones. This is obviously an important feature given the workforce's growing reliance on mobile technology to get the job done.

This is just one of the many Voice Carrier communications features that can drive productivity.



Voice Carrier CMO Jeff Gigoux makes a free call to the U.S. from Cabo San Lucas, Mexico.

AEA Technology Inc. is among the Voice Carrier customers that is benefitting from features of the Voice Carrier solution. The designer and manufacturer of hand-held RF test instruments and time domain reflectometers uses Voice Carrier for unified communications between its offices in Carlsbad, Calif., and Lakeland, Fla.

Paul DeWinter, vice president of sales and marketing at AEA, says the company especially likes the solution's display screen, which it finds "extremely helpful in identifying callers and capturing any missed calls for use in making directory and feature entries." It's easy to transfer calls between its California and Florida offices, without customers even knowing the offices are across the country from one another, he adds. AEA also uses the Voice Carrier conferencing capability to meet with its customers and distributors, and leverages the e-mail with voicemail feature to allow staff to easily keep up on messages while on the road.

New customers can get up and running with a Voice Carrier solution within 48 hours, and oftentimes in just 24 hours, adds Johnson. He says that the quick turn up time can be attributed to the fact that Voice Carrier provides preconfigured phones and PBXs.

Meanwhile, existing Voice Carrier customers that know of other organizations that might be in need of a new communications solution might want to know about the company's new customer referral program. Through the program, current customers can benefit by introducing a friend or business acquaintance to the enterprise-grade. Once the new customer has signed up for Voice Carrier Office and has been a customer for 60 days, the referring company receives a one-time $50 credit on the next billing cycle. There is no limit to the number of referrals any customer can give. IT

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ITEXPO Austin Highlights the Next Generation of Technology

By Erik Linask

On any given day, as I look through my vendor news, my Google Alerts, and the content on TMCnet, I'm amazed at the breadth of innovation our industry achieves on a daily basis, constantly bringing new products and services to market, or enhancing existing product offerings to enable customers to conduct business more efficiently and effectively.

Last month, at ITEXPO West in Austin, Texas, as I sat in on keynotes and conference sessions and spoke with vendors in the exhibit hall, I was equally amazed at the variety of products and solutions on display, taking advantage of the latest technologies available to enhance daily business operations.

Many of the most exciting products were highlighted by ITEXPO's Best of Show program (http://tmcnet.com/59065.1), but in fact, they are only a microcosm of what attendees witnessed in Austin between ITEXPO, its 17 co-located events, and other happenings.

One of the highlights was Avaya's Technology on Tap event, where Stuart Beame, assistant director, revenue cycle, education and customer service at Novant Health, discussed the history of the impact of generational differences in communications technology and usage. Specifically, he discussed the millennial generation and its desire for real-time communication: "Staying connected is essential; communications has become casual for them," he noted, pinpointing to a large degree the growth of alternate forms of communication, including social media, SMS, and video. "They have never known life without a computer; it is an assumed part of life, and the Internet is a source of research, interactivity, socializing, and there is zero tolerance for delays."

"All the growth today is in non-voice channels," noted David Huber, consulting systems engineer, Avaya Contact Center, "and social media is the medium of choice for millennials."

And in fact, the social media related sessions were some of the best attended at ITEXPO.

But the idea of instant gratification through communication and collaboration was an abundant theme throughout the conference sessions and exhibit hall. The ideal of anytime, anywhere, any medium, any device communications brought into the spotlight by Microsoft's OCS launch four years ago, is finally being realized.

Even StartupCamp keynoter, Ethernet inventor Bob Metcalfe, noted that video, mobile and embedded traffic will dominate the landscape. (Check out Paula Bernier's recap of his speech at http://tmcnet.com/59066.1.)

Polycom's Vice President of Product Marketing John Antanaitis noted accurately during his keynote address that "collaboration has become mission-critical". Polycom itself introduced its Polycom RealPresence Platform, a universal video collaboration platform – indeed a strategy – seeking to truly unify unified communications by building partner ecosystems to drive interoperability and break down traditional barriers resulting from incompatible products. (Read Peter Bernstein's account at http://tmcnet.com/59067.1.)

The idea of real-time communication was furthered by Matt Groppe, director of global business development at DHL SAMEDAY, who discussed the importance of connecting with customers in real time. "It's very easy to lose touch with them and become disconnected," he noted during his keynote (Stefanie Mosca has more at http://tmcnet.com/59068.1.)

The value of instant, always-on communications truly was prevalent throughout the exhibit hall as well, where more than 200 exhibitors collectively represented the massive innovation that is driving this trend.

From 8x8's Virtual Room solution for videoconferencing and the easy to use mobile capabilities of Digium's Switchvox solution, to the instant connectivity offered by Cradlepoint Technology and the zero-client VDI from Pano Logic, one of the overarching themes at ITEXPO was the infectious desire to connect and communicate in any environment.

That's not to say desktop communications are becoming extinct. But they are also often not the primary communications alternative any longer. IP networks have brought us far beyond what most baby boomers and gen Xers have considered the norm. As Beame noted, the tech-savvy millennial generation sees things outside the box, driving technology to new heights and away from traditional standards.

What does this all mean for traditional communications (i.e.,the PSTN)? That question is now starting to come into focus, with the FCC having finally opened the door to an all-IP future, suggesting 2018 as a potential target for the sunset of legacy phone networks. The Death of the PSTN panel (http://tmcnet.com/59069.1) started to address the question, with Marc Matthews, director of systems engineering at Metaswitch Networks, stating that it's time to end legacy network investment and move on to application-based environments, with voice representing just one of many broadband applications.

Expect this conversation to continue in Miami, at ITEXPO East, Feb. 1-3, 2012. See you there! IT

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