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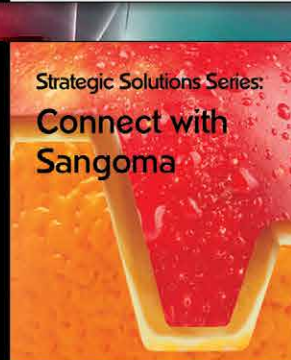
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How New Rules Will Impact Intellectual Property

Patent disputes have become a central theme of the high tech world of late. Several final rules of the American Invents Act, many of which have to do with resolving patent disputes, went into effect on Sept. 16. I recently interviewed Edmund J. Walsh, shareholder and co-chair of the post grant proceedings group, and John Strand, counsel, at Wolf, Greenfield & Sacks P.C., on what it's important to know about the new measures.

A key goal of patent reform is to reduce the time and cost of litigation by enabling the Patent Office to play a more active role in determining the validity of patents in contentious situations, notes Walsh.

"Frequently, the validity of an issued patent is challenged in court where many hotly contested issues, often of marginal relevance to the technical merits of the patent, get injected into the process," he says. "Congress perceives that the Patent Office can bring to bear technical skills and provide more limited proceedings that will lead to a more predictable result faster and at lower cost. Tech companies concerned with a competitive patent or application will want to consider the full range of options in light of these new rules."

He goes on to say that the rules provide for Pre-Issuance Submissions, "which allows those concerned that the Patent Office will grant a patent based on a troubling patent application filed by a competitor to provide the Patent Office information about the prior art and explain why the claims in the patent application are not inventive in light of this prior art."

A second proceeding, called Supplemental Examination, allows a patent owner to ask the Patent Office to review information and certify that the information would not have changed the decision to grant the patent, he says. And if it might have altered that decision, he says, would allow for reexamination of the patent. Meanwhile, inter partes review

rules allow challenges to issued patents based on prior art patents and printed publications, explains Walsh.

I asked Strand for his thoughts on the intellectual property case Samsung recently lost to Apple, and he said it is probably good for the tech industry and IP at large.

"Some people put this victory up as an example of why the patent system is broken, but I don't see it that way," says Strand. "Samsung was represented by some of the best attorneys in the world and put forth every effort into invalidating Apple's patents and defeating Apple's claims – it was unable to do so. That result doesn't show that the patent system is broken for the technology industry, but shows that the technology industry can successfully use many types of IP – utility patents, design patents, and trade dress protection – to protect their technology. Such an investment makes business sense to compete in today's marketplace.

"As for Samsung, now it will be forced to go back to the drawing board on its products – but those designs will likely only be better because they will be forced to come up with something new and different from Apple," adds Strand.

Strand goes on to say that patent damage awards have become an area of focus in the past five years. The new America Invents Act doesn't really change how patent damage awards are made, he adds, as any changes will have to come from the courts.

What the act does do, he says, is it changes fundamental aspects of patent law including a modified "first to file" system vs. a "first to invent" system.

"The IP landscape will likely look much different five years from now because of the America Invents Act," he says.

For more on patent law, check out the TMCnet videos from the SUITS conference co-located with ITEXPO Austin last month. **IT**

Publisher's Outlook

A Buffet of Thoughts on Tech Investment

As news breaks that Coca-Cola is mulling a $10 million investment in Spotify some people may think back to Warren Buffett's comments on the tech market – saying he wouldn't invest in it because he didn't understand it. While some took this comment at face value, it seems the spirit of the comment was that Buffet is a value investor often holding a company's shares for years or even more than a decade. Trying to figure out who the tech leaders will be over such a long time is very difficult if not impossible.

Interestingly, Coca-Cola is a great example of a Buffet investment – it is a leader in its space and much of its revenue is derived from Coke and its variants which just happen to be addictive due to their caffeine content.

But I digress. The point is, marketing has evolved into content marketing, meaning now more than ever, companies are blogging, tweeting and hiring others to produce content for their websites.

If you are a consumer brand there is a limit to how far you can go with social networking and content. After all, when I need a soda or bottled water I don't need to research related articles about how good hydration is for your skin before buying. They aren't selling networking switches so branding is one of the few areas where they can influence their potential customers.

But in a content driven world, having control of content distribution could mean a better ability to utilize said content to build a brand. And this news builds on an earlier announcement that Coca-Cola and Spotify had entered into a strategic sponsorship so one has to assume the beverage company is happy with the results so far.

Getting back to Buffet – as founder of Berkshire Hathaway, his investment company owns about 8.9 percent of Coke worth over $15 billion or 400M split-adjusted shares at a share price of $38.11.

So in a roundabout way Buffet is investing in tech – to be fair he has made tech investments this past decade but one would imagine there are few investment areas which are as unpredictable over a decade than consumer technology.
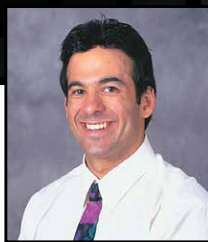
For Coke, a company spending millions on branding, this investment could lead to a more cost-effective way to get the message out while also potentially allowing them to profit from an increase in the share price of Spotify.

Speaking of investing, Israel is legendary as a tech powerhouse – the entire IP communications market owes its success to engineers from this middle-eastern country where compulsory army training has a side benefit of immersing the population in engineering specifically applicable to communications.

I remember fondly over the years attending SUPERCOMM, VON, Computer Telephony Expo, Communications Solutions and ITEXPO and always seeing new and innovative start-ups from this land of milk, honey and falafel.

Sadly, over the years, things have changed – over a decade earlier, investors were making such large amounts of money from IPOs and acquisitions that it made lots of sense to reinvest much of it back into new companies.

Many things have changed over the years – IPOs are a much trickier proposition thanks to Zynga, Facebook and more jittery investors as a result of the dotcom and communications crash from early last decade. The cloud has made it easier to invest in companies, which don't need much capital to get going. Cisco was an acquisition machine and so were Lucent and Nortel, but things have changed dramatically over the years. In fact Alcatel-Lucent spun Genesys off to raise cash so an acquisition strategy seems to be the opposite direction of where they are currently headed.

The end result is that while the U.S. seems to have no shortage of startup investment, in Israel the situation is different. In fact, instead of massive investments from VCs, startups have to rely on incubators and accelerators that reduce the overhead needed to launch a new company.

The good news is Israel is on track to see 600 new companies started in 2012, or about the same number as 1999 and 2000. **IT**

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By Hunter Newby

FirstNet, Step 1

Nothing could be more important for the country than a nationwide public safety network. That is other than getting it built and correctly, on time and on budget. Let us not forget about those bothersome details. So, what is the plan for that $7 billion and the 700mHz D block allocations that the NTIA's FirstNet has been granted, and why is it that so many people in the telecom industry do not know anything about it?

Getting anything accomplished, particularly along the lines of something the size of FirstNet, requires a massive coordination of efforts and awareness, but that is exactly what seems to be the issue at the moment. As significant as FirstNet is to the United States, and considering the dire urgency of its creation, there does not seem to be any alignment of the goals and objectives along with the messaging for the masses. To be clear, it is not very clear.

Maybe it is just that I do not frequent the public safety network conferences, but it does seem odd that with so much necessity to rely on commercial networks to achieve the full nationwide FirstNet network build there is not an increased level of exposure to the broader industry that I am a part of. It is peculiar to me that such a large public works infrastructure project that would certainly create numerous, coveted jobs does not have any structured public information campaign. Step 1 for the nationwide, FirstNet communications network plan should probably be a nationwide corporate communications plan.

Over the past three months, after having presented at numerous telecom industry conferences in front of hundreds of people and having had conversations with several key people in executive management as well as investment banking positions where I have raised the topic of FirstNet, I have only come across two people who knew anything about it and, surprise, they were both lawyers based in Washington, D.C. A $7 billion federally funded start-up communications business should surely be getting more attention than it has. The lack of general awareness coupled with the size and scope of the plan has come as somewhat of a shock to all of the people that I have spoken with about this.

The reactions range from curiosity to outright disbelief and even in one situation a senior level telecom executive got quite perturbed about it and indicated that it would be best for the federal government to stay out of his business. One thing was common across all, even the two lawyers; they believe there is a better than good chance that FirstNet will never happen. The two primary reasons cited were that if there is a change in the White House come November, there might not be any political will to support FirstNet going forward, and that even if it did continue it would fail because in the end it is the federal government and it cannot run anything successfully anyway.

Is it cynicism, reality, or a combination of both? One thing is certain – the U.S. lacks a sound, cohesive, nationwide broadband (fiber and wireless) infrastructure plan. Hopefully the newly elected 15-member board of FirstNet can create a real network plan and actually execute on it. If they cannot, or do not, then who will? **IT**

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

> **As significant as FirstNet is to the United States, and considering the dire urgency of its creation, there does not seem to be any alignment of the goals and objectives along with the messaging for the masses. To be clear, it is not very clear.**

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42.5% NO

2012
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34.5% NO
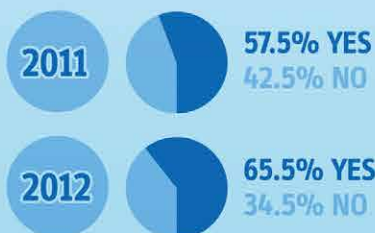
Respondents are getting steadily more exposed to and comfortable with Live Chat

COMMUNICATION PREFERENCE:

19%
Live Chat

58%
Email

More than half the respondents use Email as their preferred method of communication.

PROACTIVE CHAT SATISFACTION:

50%
Very Satisfied

44%
Somewhat Satisfied

94% of respondents found their proactive live chat experience to be satisfactory

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By Michael Stanford

Consumerization Security

Bring your own device is a manifestation of the consumerization of IT. But the consumer market is fundamentally different from the enterprise IT market, and there are limits on how far consumerization of IT can go. This means limits on which devices and applications are supported or supplanted, and the degree of support that the IT department provides.

Currently the consumer mobile platform (smartphones and tablets) market is pretty much a two horse race, between iOS and Android and, according to IDC, Android out-shipped iOS by a factor of four in the second quarter of 2012. The IT landscape is very different; it is a two, three or four horse race depending on your perspective, with BlackBerry OS and Windows as the additional contenders, each at a different stage of expiration and (maybe) revitalization.

IT departments are more interested in installed base than in new sales, since it is the installed base that they have to support. That means BlackBerry and iOS mainly, with Android coming up fast. This presents a problem. BlackBerry OS has always been enterprise friendly: relatively secure and manageable. iOS didn't start that way, but it has made great strides, and is now sufficiently secure and manageable to be enterprise-friendly. It is particularly appealing to IT departments because there are so few models to support, and thanks to Apple's iron grip on the app ecosystem, it is agreeably free of malware. Android, on the other hand, looks like an impending disaster. There are countless models of Android devices, with a range of hardware capabilities; there is a thriving malware community, and manageability, like so much else Android, is a work in progress.

The free market is behaving as it is supposed to, with dozens of mobility manageability and security solutions from startups and established companies of all sizes competing to the point of confusion. Fortunately for IT departments, Samsung, the leading manufacturer of Android devices, is alert to this issue, and at the beginning of 2012 it launched an initiative called SAFE (Samsung Approved for Enterprise). IT departments don't need a profile for each Samsung device; one SAFE profile will cover them all. That's the good news. The bad news is that so far only a few Samsung models are SAFE-certified, so the "will" in that previous sentence is strictly future tense.

Also in the future is the likelihood that Google will continue to improve Android's enterprise security and manageability the way Apple did with iOS. Some of this could come from the 3LM codebase that came with Motorola Mobility. **IT**

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

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How UC has Elevated Video

By Mike Sheridan

Think back, if you will, to a decade ago. The world was just starting to embrace instant messaging, with AOL leading the way. Prices for digital cameras were dropping, but they were only just becoming affordable to the masses. Meanwhile, videoconferencing was a luxury that only the largest and savviest of corporations could afford. Your company may have invested in a dedicated, highly built-out conference room to chase the elusive dream of holding meetings in different cities where the principals could see one another rather than peer at the phone in the middle of the table.

As in many areas of our lives, technological advancements have not only made our lives better but also removed any lingering vestige of the frustration we used to feel. Videoconferencing, in particular, was an altogether expensive and inefficient proposition. The very word videoconference might make you shudder at the thought of your company's clunky and unreliable system. Remember reserving a room, assembling the attendees, and then trouble-shooting for the next 25 minutes? With the meeting half over, it was difficult to get anything done. Indeed, the process was so aggravating that I remember simply opting for travel or a phone call.

But today, things are different. High-definition video technology has been integrated into everything from computers to smartphones. This new prominence of video – combined with shrinking travel budgets and skyrocketing fuel costs – has supercharged the migration toward videoconferencing. Lost in the debate over voice vs. video is the realization that the latter is no longer a theoretical argument but a practical application that's now available to the masses. Now, video is real, impromptu, and a viable option for collaboration. To paraphrase the jazz standard, what a difference a decade makes.

As we find ourselves in the midst of the era of BYOD and the mobile worker, video has gotten a further boost from unified communications, which seamlessly supports both trends. Much like when the iPod led the mass migration toward digital music files, many leading smartphones, laptops, and

PCs have embraced video technology and brought much-needed convenience and mobility to the world of videoconferencing. And in the current technological environment, a wide array of devices can deliver a satisfying video conversation on a portable device that cost $600 or less – many of which are already on your employees' desks.

With an expanded palate of communications channels including e-mail, voice, IM, and video, individuals can think more strategically about how they engage and collaborate, giving them the flexibility to pick the appropriate channel for any situation. Perhaps more important, UC and video en-

able companies to take an enterprise-wide approach to consumer engagement. In the not-too-distant future, video will become the currency of consumer interaction, enabling every employee – from frontline agents and sales staff to communications workers and subject-matter experts – to become part of the customer experience team. When your company embraces video, you'll find that, as with so many other capabilities, these are no longer abstract notions. They're just a click away. **IT**

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

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By Jon Arnold

Collaboration – Why Now?

The theme of my Rethinking Communications column is just that – a forum to rethink and broaden your perspective of what it means to communicate. For the most part, communication is a one-to-one exercise; whether using the phone, e-mail, text, IM, etc., we're generally just talking to each other. Sure, we all spend lots of time on conference calls, in live meetings and even videoconferencing sessions, but many of us are really just passive participants. So what's the big deal about collaboration?

Well, this largely depends on your point of view, and one could argue that most of your work gets done just fine under the status quo, and frankly you'd rather have as little to do as possible with your co-workers. Fair enough, but businesses today rely on agility and teamwork to be competitive, and collaboration has a lot to do with serving that agenda.

produced a winning product. Innovation can – and does – come from all corners of a business, and if that's part of your mission statement, then you need to up your game with collaboration.

INTERNET TELEPHONY readers should be well aware of where I'm going – IP-based technology. The way forward really begins with VoIP, which sets the stage for having voice, text and video all supported over a common network infrastructure. In this environment, collaboration ceases to be a high-end perk, and now becomes accessible to all employees. Not only does today's technology make the tools available to everyone, but the cost has come down considerably. This means that it's just as easy for employees to collaborate one-on-one as it is easy to work in groups, which greatly enhances the upside for working in teams.

with VoIP, and by extension other modes that enable collaboration, is now all within the reach of all businesses. This means that SMBs have the tools today to collaborate in real time on any scale – cost effectively – regardless of geography.

The implications are quite profound, as the natural barriers of time and space give way to borderless technologies. The real winners will be companies that embrace this and build their organizations around these capabilities. This opens the door for business models based on virtualization, teleworking and remote working, all of which can drive down costs and make for a more agile operation. When your competitors can come from anywhere in the world, you simply must stay close to your customers and be able to respond faster than ever before, not just for providing support but for bringing new products to market. In

SMBs have the tools today to collaborate in real time on any scale – cost effectively – regardless of geography.

Businesses have generally viewed collaboration in light of the tools at their disposal. Prior to immersive telepresence, there were limited alternatives to in-person meetings, so a lot of time and expense was expended on travel, and this had a major impact on things like product development or time to market. As such, intensive collaboration was a costly process, reserved primarily for the producers – top-level sales personnel, marketeers and executives.

This has served businesses well for decades, but if collaboration is viewed as a core competency that drives innovation and creates competitive advantage, it stands to reason that businesses should try to tap the potential across the entire organization. The genesis of the Post-it Note from 3M is a classic example of how a collaborative process coming from outside the elite ranks

The significance of these advances actually goes well beyond the technology and cost savings. There's a bigger story in terms of how organizations and the nature of work itself are both evolving. For better or worse, globalization is a fact of life for business, and SMBs must follow suit to keep pace with their larger multinational competitors. The good news is that today's collaboration solutions make this quite easy to do, and for that reason alone, SMBs should be running – not walking – to get there.

Competition today dictates that businesses serve a global customer base, and to do that they need some degree of a global footprint. Harkening back to TDM, when connectivity was defined by the footprint of a physical network, the high cost of international communication meant that only large enterprises could compete on a global scale. That has changed radically

this light, collaboration takes on far greater strategic value for the business.

This should make a strong case for collaboration on an operational level, but there is an equally strong rationale at the employee level, especially around the changing nature of work. Once considered together, you may see why a rethink about collaboration is in order – unless you've reached that conclusion already. If not, you'll want to read my next column, which will address why collaboration is becoming an integral aspect of what employees value in the workplace. **IT**

Jon Arnold is principal of J Arnold & Associates, an independent telecom analyst and marketing consultancy with a focus on IP communications, and writes the Analyst 2.0 blog. Previously, he was the VoIP program leader at Frost & Sullivan.

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By Steven Johnson

Overcoming the Interoperability Challenge

End users, VARs, and service providers are all facing the interoperability challenge: for years deployments have been dependent on what equipment was available at the time, price point, capability. Now that technology and market demand are in sync, the challenge has been integrating the hardware and software to enable unified communications.

One problem with interoperability is the many implementations of SIP. These variations may be slight, but in the end can prove to be a significant stumbling block in deployments.

They also impact security. Opportunities for hackers, spoofers, and the like are easy to come by when there are inconsistencies between the SIP-enabled PBX and the ITSP. Leading IP PBXs and ITSPs are aggressively

conducting interoperability testing; make sure your equipment and service providers have demonstrated successful interoperability.

Pave the way for interop by using products that strictly adhere to the protocol and do not include vendor-specific variations. There are a number of advantages vendors can leverage with SIP that benefit security, advantages that come into play only when the protocol is strictly maintained. This also positions you well in planning your future network.

Specific to SIP trunking is the SIPconnect solution, which was developed by the SIP Forum to provide a common method for enterprises to connect to a SIP trunking service provider using standard SIP messages consistently across all vendors. SIPconnect is

a major step forward toward standardizing interoperability among all of the components of a SIP trunking implementation but will take some time to be commonplace.

Even with these strides, there are many issues that won't be resolved in the near term, and the best steps to take in implementing SIP, SIP trunking and unified communications are to install an enterprise session border controller at the edge of the network. The E-SBC normalizes the SIP signaling between the SIP-enabled PBX and the ITSP, allowing the enterprise to successfully connect to SIP trunking service providers quickly, easily and securely. **IT**

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

By Nick Maier

There's No Excuse for Not Knowing Your E911 Risk
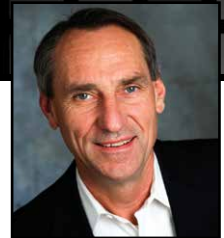
Is your organization at risk when it comes to providing E911 protection to your employees and visitors? What are the liability implications of not actively managing E911 location information?

If you don't know the answer to these questions, your organization may be subject to regulatory fines and risk large damages from civil and criminal litigation.

If you've read this column before, you likely know that some states – 17 at last count – have laws requiring enterprises over a certain size or those purchasing a new PBX or call server to implement E911 to protect employees, vendors and visitors while on their premises. At least one other state, New Hampshire, has related laws on the books that, in effect, require multi-line telephone system operators to maintain E911 location information.

While the need to comply with state E911 legislation is a prime motivator for adding E911 protection, it shouldn't be the only consideration. Estimates based on Department of Labor statistics indicate that more than 60 million Americans working in or visiting office buildings, office campuses, hospitals and government buildings do not have the same 911 protection they have at home. Regardless of legislation, the facts are clear that E911 saves lives and is an important component of a comprehensive safety plan.

There are many options available in the market to help an organization assess its E911 liability risk. Consultants or law firms can be retained to conduct comprehensive enterprise compliance audits. E911 solution providers are typically willing to share their experience as part of the sales process.

Our company, RedSky Technologies, offers a free, online E911 Risk Assessment that has helped hundreds of organiza-

tions quickly determine if they have an E911 location management issue. The algorithms for this online diagnostic tool have recently been updated to take into account the accelerated adoption of SIP and other mobility-enabling technologies.

The E911 Risk Assessment takes three minutes to complete and generates a custom report that identifies specific areas of risk across four critical dimensions: network configuration, workforce mobility and infrastructure, legislation and location complexity, and 911 call completion and notification. If your organization is at risk, the report will recommend specific actions to mitigate your exposure and is a valuable tool to help management understand the issues.

The E911 Risk Assessment is available at http://www.e911-risk-assessment.com. **IT**

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

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By Max Schroeder

A Continuing Educational Series
Time for a Website Redesign?

Many of our readers, like me, are being bombarded daily by redesign offers from "web design/SEO experts". The communications say that your site is outdated; your Google ranking is low; we can improve your SEO results; etc. Of course, the people sending these messages are generally clueless as to your organization's actual goals or targets. Plus, major changes in website designs can initially have negative results requiring extensive fine-tuning, so don't be too quick to reach for the phone.

First, review your initial web/SEO program plan. Determine if you're meeting your organization's goals and keep the adage "if it ain't broke, don't fix it" in mind. If priority No. 1 is to generate leads, limit your focus to lead generation. Don't be distracted by comments that the site is dated or that a competitor just updated its site with a new look. Your competitor's redesign may look flashy

but its lead flow could have decreased by 50 percent and be a total disaster. Remember that priority No. 1 is lead generation – not winning design awards.

If you are a vendor or service provider with an established reseller channel, your design requirements and goals will be totally different from a company selling direct. Resellers have already committed to your products and programs. They don't need showy new screens or sales pitches. Resellers just want to quickly locate the information they need, and a familiar site is much easier to navigate. Therefore, priority No. 1 is an easy-to-navigate site that changes progressively over time.

Certainly, sites need updating. Utilizing SEO specialists and web designers, as I do, is also recommended but careful thought must be applied before making changes.

TMC is one of my greatest resources and an excellent example of how to undertake site redesign. In July TMCnet Online Community Sponsors received notification of a pending redesign and the rationale behind the adjustments. Priority No. 1 for TMC has always been the value it provides to its online communities and TMCnet's organic ranking on major search engines. The site was generating 70 million page views per month but industry changes, including new search engine algorithms, convinced TMC that it was time for a redesign. The new TMCnet is even easier to navigate and retains a familiar feel but is better organized to highlight the most important assets and elements built into the site. Take a look at a priority No. 1 success. **IT**

Max Schroeder is senior vice president of FaxCore Inc. (www.faxcore.com) and managing director of the DPCF.

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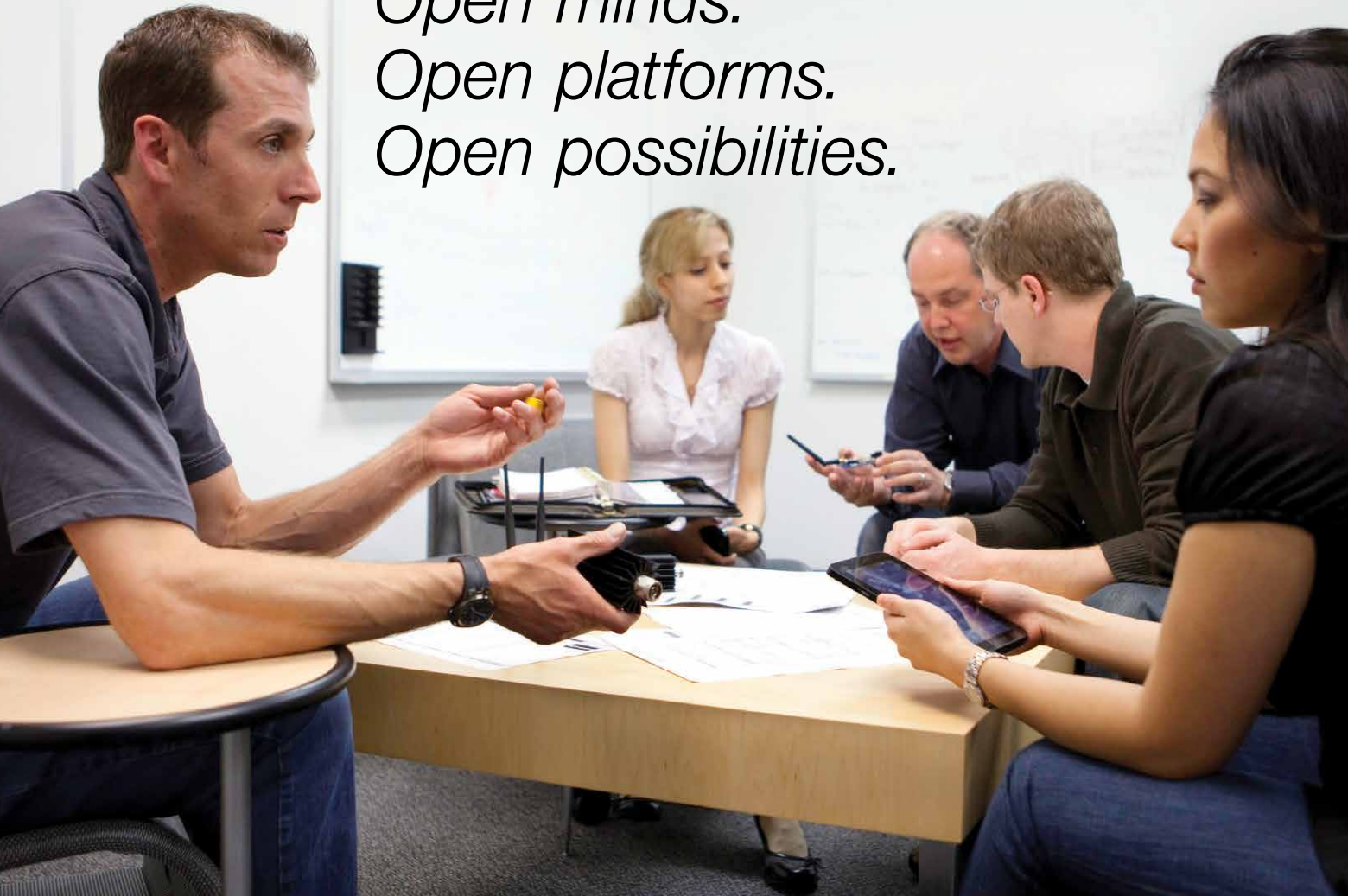
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Visit **sprint.com/m2msolutions** to learn more about our M2M ecosystem. For the latest news, announcements, case studies and more, visit the Embedded M2M Solutions Community on TMCnet.com.

Defensive Virtualization

By Lori MacVittie

Well before the rise of server virtualization, the concept of application virtualization was alive and well and leveraged for both scalability and defense against attack. Scalability through load balancing requires the abstraction of an application to a virtual endpoint in the network to transparently distribute load across multiple instances of applications – be they virtual or physical. This network-based virtualization of applications in what today is a more holistic application delivery tier, allows for logical separation of incoming requests from communication with the real application instances and thus affords organizations a strategic point in the network at which security policies can be effectively enforced.

cation host tier will undoubtedly overwhelm infrastructure along the way, resulting in a successful attack.

Thus we place such protections at the edge of the network, at the perimeter, in an attempt to detect and prevent the traffic from tunneling deep into the data center where it can do real damage.

We must take a similar approach to application-layer attacks. While the application endpoint may be able to detect fraudulent behavior indicating an active attack, to do so means the resources have already been consumed at the application tier, rendering any defense by the application

Virtualizing applications at strategic points in the network affords organizations the ability to force all inbound requests through specific control points.

The ability to virtualize applications in the network has become critical to defending against those attacks targeting the application layers. While firewalls and traditional network security solutions are able to detect anomalies and malicious traffic at the network layer, they are not application aware and thus are essentially blind to attacks focusing on higher layers of the stack, especially those at the application (HTTP) layer. This is especially true for those attacks that increasingly seek to exploit behavior rather than bits and bytes within packets. Aggressive flooding attacks at the HTTP layer are difficult to detect, as it requires careful monitoring of individual application sessions to not only determine what a normal request rate might be, but to recognize an abnormal rate. Similarly, slow-based attacks – a resource consumption-focused methodology – can only be detected by comparisons of end user network connections, TCP options, and active behavior. Application-layer DoS attacks are common enough; used when the intent is to immobilize a site or degrade its performance so much as to present the impression of an outage.

The ability to detect and prevent a negative impact from such attacks can only effectively be implemented at the application endpoint, as it is where behavior can be monitored. Yet as with network firewall functions – which can be implemented as host-based services – the further into the data center architecture malicious traffic is allowed to travel, the more damage it does. A network-based DDoS attack that is allowed to traverse the network to the appli-

ineffective. Traditional network security topologies address the need to place early detection and prevention solutions as close to perimeter (to the source of the attack) by essentially virtualizing the network. The data center firewall has become, to the end user, the destination. This type of design topology forces all inbound traffic to traverse a specific set of control points within the network, allowing earlier detection and more successful prevention of network attacks.

A similar approach in the application layers is necessary to duplicate the successful methodologies used in the network layers. Virtualization of the application at a strategic point of control in the network, as close to the perimeter as possible, affords the ability to intercept, inspect, and evaluate all inbound application requests for not just malicious bits and bytes but behavior as well.

The use of virtualization as a defensive measure to detect and prevent attacks across the entire network stack is one that has been proven successful for a wide variety of organizations because it prevents marauders from becoming entrenched in the data center, where they can do the most damage. Virtualizing applications at strategic points in the network affords organizations the ability to force all inbound requests through specific control points at which the appropriate defensive and offensive security measures can be employed to protect and defend resources, applications, and data.   **I T**

Lori MacVittie is senior technical marketing manager at F5 Networks (www.f5.com).

By Peter Radizeski

It's the User Experience, Stupid

It's all about UX – the user experience. Carriers have a tendency to talk about value and solutions out of the side of their mouths. I say that they talk about it, but that's as far as that goes. No differentiation. It is total commoditization of me-too services to which they expect the channel to add value.

In all of this cloud bubble, everyone forgets that it is about the customer – what he wants and what he experiences.

I dislike making Apple analogies, but consumers wouldn't switch networks and upgrade constantly – the darn iPhone 5 would sell out in a few hours – if it wasn't about the consumer experience.

One company realized that the user interface of its white-label fax solution was so poor that it was costing the company users.

Parallels told a roomful of channel execs that cloud success depends on integration. It is something that the Google Apps circle has already jumped on. This young sector gets that it is about integration and ease of use, but the 16-year-old carrier industry can barely grasp it – or give it more than lip service in most cases.

In website design, the most expensive designers deal in UX. However, in telecom, where millions are dumped into gear, little is given to user experience and the supporting systems and procedures to insure that.

Once I placed orders with two different CLECs the same week. The experience was vastly different to the point I just won't work with the other CLEC again.

As everything becomes cloud, the user experience will become more and more important. As companies move apps, desktops, communications to the cloud, training, on-boarding, integration and customer care will become essential pieces of retention – otherwise customers will bounce.

Very few people in hosted PBX understand this to the core, which might explain the slow adoption. One guy at CPExpo said that it will be a disruptor that ultimately wins the cloud battle. It will be a company that makes user experience a wonder because it ends with the user. **IT**

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

By Paula Bernier

Got Game?
Businesses Leverage Game Mechanics to Drive User Behavior

Babies play on iPads. Preteens don't remember life before the Wii. And Generation Y has been raised on a regular diet of broadband-enabled computers, smart mobile devices, and connected gaming systems like the DS and the Xbox. In fact, a 2011 MTV study revealed that members of Gen Y, which make up 25 percent of today's workforce today, think a "game-like metaphor" can be applied to virtually every aspect of their lives.

Of course, electronic games are not an area of interest reserved exclusively for the younger set. People of all ages like to play free games online; the average age of a World of Warcraft player is in the mid 30s; and one recent report indicates the average online gamer is a 43-year-old woman.

Whatever the demographic, there are some 1 billion regular game players on the planet. That number is growing, and it's never gotten smaller, notes Brian Blau, research director of consumer technology and markets at Gartner Inc.

Electronic games have become so embedded in the human experience that many organizations are now working to leverage game mechanics – like avatars, leaderboards, online badges, and other rewards – in non-game environments to drive sales and user engagement, enhance learning, and increase productivity.

The Players & the Field
If you have heard about this kind of thing, which is commonly referred to as gamification, chances are good that the reference involved one of the following companies: Badgeville, BigDoor or Bunchball. These outfits are the big three Bs of gamification, says Blau. In addition to these pure-play gamification companies, there are several other companies, including social profile manager Gigya and cloud-based CRM pioneer Salesforce, that deliver gamification features related to their offerings. And there is at least one creative agency (Dopamine) that has popped up to help businesses implement programs that use gamification.

"It's thought that [for] all of the vendors combined, there is maybe $200-$300 million in revenues, but the vendors neither confirm/deny [that], as they are trying to seem bigger than they really are," says Blau.

Perhaps, but gamification appears to be poised for growth.

Gartner forecasts that by 2014, more than 70 percent of Global 2000 organizations will have at least one gamified application. And M2 Research forecasts the market will reach $242 million by the end of 2012 and hit $2.8 billion by 2016.

Information & Data Security: Employee Responsibility
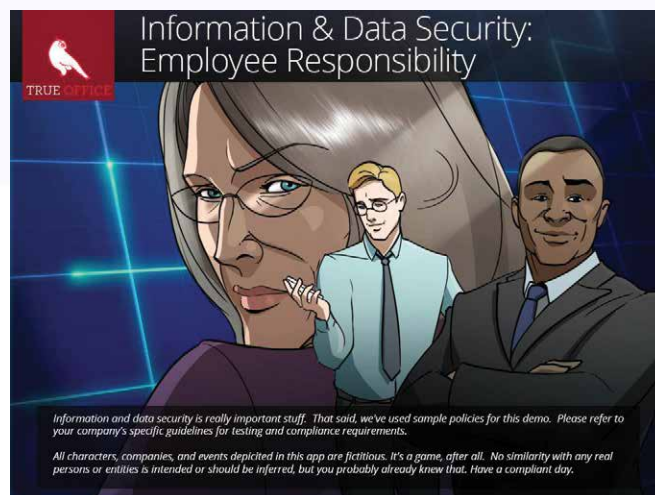
Taking a cue from graphic novels, each True Office app begins with a splash screen that hints at the app's characters and themes.

"Gamification is growing up from a hype into a significant business opportunity for gamification platform providers," according to M2.

Businesses are using gamification to drive certain behaviors by customers and employees.

End User Engagement
For example, some TV shows invite viewers to get on their computers and participate in a community related to that show to drive engagement.

NBC.com in October of 2007 launched an audience engagement initiative leveraging gamification technology from Bunchball. Based on the NBC show The Office, a site called DunderMifflinInfinity.com aimed to keep viewers interested in the show, especially between episodes and between seasons. Visitors would join the online community as employees of Dunder Mifflin (the name of the fictional paper company depicted in the TV show) and they would receive Schrute bucks (named after the character Dwight Schrute played by Rainn Wilson) for participation and submitting content.

Interestingly, this was also a revenue-generating site, which made money through ads for Toyota and promotions by other companies. MasterCard did a sponsorship on site, providing $200 Schrute cards to visitors that completed certain online tasks. The site also had a store at which visitors could use real dollars to buy virtual items (such as a model Toyota car) to customize their virtual desks on the site.

In another, and more recent, effort using gamification to build fan loyalty, the NFL has gamified NFL.com. Visitors earn coins for entering the site and doing other things like watching videos,

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reading articles and completing online challenges. Participants in the free NFL Fan Rewards program can then use their virtual coins to purchase actual NFL merchandise. Fans also collect badges and points, and are ranked on leaderboards, as part of the program, which is powered by BigDoor.

Gamification has also been embraced by mobile service provider Verizon Wireless, which retooled its community website with the help of Gigya and digital agency Modal. The Gigya Social Gamification Platform rewards users with badges for engaging with the site. That allows Verizon Wireless to encourage behaviors like commenting on articles and sharing that can draw referral traffic to the Verizon Insider site. The companies claim that Verizon Wireless has seen a big boost in website traffic as a result of this effort. More than 50 percent of the site's users participate in gamified activities. And users who logged in via Social Login spent 30 percent more time on the site and generated 15 percent more page views than others.

Beth Tourek, social media strategist at Verizon Wireless, comments: "By allowing users to interact using their social identities, we're not just engaging with them more effectively but also understanding them like never before."

Several leading software companies also are using gamification to help train customers and, in the process, encourage use of their tools.

Microsoft built a gamification application called Ribbon Hero 2 into Microsoft Office. The goal of this effort is to motivate users to learn how to use Microsoft Office without creating the feeling that they're going through training. "Ribbon Hero 2 takes users out of their normal 'work mode' and puts them in 'explorer mode', where it's fun to discover new things, safe to fail, and where users feel accomplishment for having completed something hard," according to a whitepaper by Bunchball, whose gamification technology powers the solution.

SAP is using Bunchball technology in the SCN Contributor Recognition Program, which is part of the SAP Community Network. Through this program users can earn points for every contribution

Through True Office's dialog and exploration, players are immersed in high-risk business situations based on real world events.

Move to Online Textbooks Opens Opportunity for Games

By Paula Bernier

Games are becoming big business in academia and in business and have drawn the attention of policymakers at the federal and state levels, says James Gee, presidential professor of literary studies at Arizona State University and author of the books "What Video Games Can Teach Us about Learning" and "Good Video Games and Good Learning: Collected Essays."

Textbooks are dying, and the world is moving to tablets as learning tools, says Gee. That is opening the door for more companies to get into educational content, and often that content is being supplemented with games and game-like content.

Indeed, in August News Corp. announced plans to dedicate $100 million Amplify, the company's digital teaching and assessment tool unit run by former New York City schools chancellor Joel I. Klein. In announcing the news, News Corp. CEO Rupert Murdoch said he would be "thrilled" if education accounted for 10 percent of the company's revenue in five years, according to a piece by The New York Times.

"We think the opportunity continues to be to use digital technologies to be disruptive to an enormous business stuck decades in the past," News Corp. COO Chase Carey said earlier this year, according to the Times piece.

Netflix CEO Reed Hastings and the non-profit venture capital firm the Charter Fund in April of 2010 bought DreamBox.

And in 2009, Sandra Day O'Connor founded iCivics, a free online site that uses video games and related materials to expand student understanding of civic knowledge.

Virtually every company in the content space is working on efforts marrying games with educational content, says Gee, adding that even The White House Office of Technology has a game unit. All of the above has understandably gotten the attention of traditional textbook companies like McGraw-Hill and Pearson, which have moved to expand their digital textbook initiatives.

A lot of companies want to sell games that are just, as Gee calls it, "skill and drill". Others are saying games can change the paradigm of learning. An example of the latter, he says, is a MacArthur Institute-funded effort called Quest to Learn at Institute to Play, which has been adopted at public schools in Chicago and New York. Through this effort, the schools not only use games to learn, but the entire curriculum is gamified, he says.

Games Encourage Learning through Collaboration, Failure

By Paula Bernier

It's ok to die. In fact, dying can be a good thing.

At least that's the belief of Melody Buckner, an employee and PhD student at the University of Arizona.

Buckner isn't expressing a religious belief or channeling Jack Kevorkian here. Rather, she's referring to the lessons that online games can provide to those in business, academia and life.

After watching her two gamer sons, who are now teenagers but who have been playing online games since they were toddlers, figure out how to play these games – and without reading a manual, Buckner started to wonder how that learning occurred and what kept them coming back for more. So she designed a study to look at how teens learn to play World of Warcraft.

The average WoW player is in his mid 30s, but Buckner interviewed nine teenage boys about their experiences with the game. She learned that collaboration among friends and fellow players helps these individuals figure out how to play and succeed at the game. But they're also very comfortable with learning through failure.

"It's ok to die," she says. "Kids don't mind failing as long as [they] can go back and redo it. In gaming, you learn from failing, and then you move on."

That's not unlike how people learn in life, adds Buckner. Nonetheless, as she points out, traditional education and older generations typically don't encourage learning through trial and error. Kids will get on computer and click around just see what happens, but members of a computer class of older women Buckner recently taught were reticent to touch computers without precise instructions.

Buckner is currently working with UofA faculty to bring gamification into a film class, which is taught partly in a classroom and partly online. The class, which is expected to be available as part of the spring curriculum, will enable students to earn points to encourage collaboration with content and teachers, and among students.

"We're trying to make learning fun again," says Buckner.

had tied all its games into a fabric and enabled users to create avatars, accrue points and get badges as part of their missions. That made the Pogo experience incredibly engaging and kept users on longer and brought users back again and again, he says. That happened, he says, because the Pogo site involves goal setting, real-time feedback, and rewards, which are all things that appeal to people's interest in altrusism, competition, and self expression.

"Then we realized that you can tie any experience together – community, e-commerce, content – and can use it as a motivation engine to drive any behavior," says Paharia.

The Gamified Workplace

Now Bunchball, its competitors and many organizations are applying that both to drive behavior by their customers as well as to reward certain behaviors internally within their own businesses.

Paharia says that Bunchball is building integrations with popular office programs from Adobe, IBM, Jive, Microsoft and Salesforce in an effort to help companies motivate their employees to sell more, collaborate more, better serve customers through contact centers, and adopt new software tools.

Badgeville announced integration with Salesforce earlier this fall. Called Badgeville for Salesforce.com, the app is available via the salesforce.com AppExchange. According Badgeville and Salesforce, this solution can create a more dynamic experience for users that rewards their participation and recognizes them for their sales contributions; updates Salesforce records more regularly so managers can better gauge their sales performance and pipelines; surface and socialize key rewards in Salesforce Chatter to improve collaboration between sales teams and champion valuable user behavior; and grow revenue and reduce sales cycles.

And in June, Badgeville introduced a Microsoft SharePoint connector that identifies the most high value behaviors of users in SharePoint environments. That behavior can include document management (create, contribute);

they make – be it submitting content to the SCN, commenting on content, or otherwise sharing or collaborating on SCN.

Nitro for Salesforce, a platform that allows for online sharing, goal setting, competition and badge-based rewards related to sales, is also powered by Bunchball.

Bunchball founder and CTO Rajat Paharia tells INTERNET TELEPHONY that he

started the company in 2005 as a social gaming platform, which he and his coworkers tried to sell to social network sites. But the market wasn't ready for this solution, he says, so the company began looking for other opportunities. During this process, Paharia and his colleagues noticed that online games frequently would see a spike followed by a fall off in use. Paharia also noticed that the Internet gaming site Pogo

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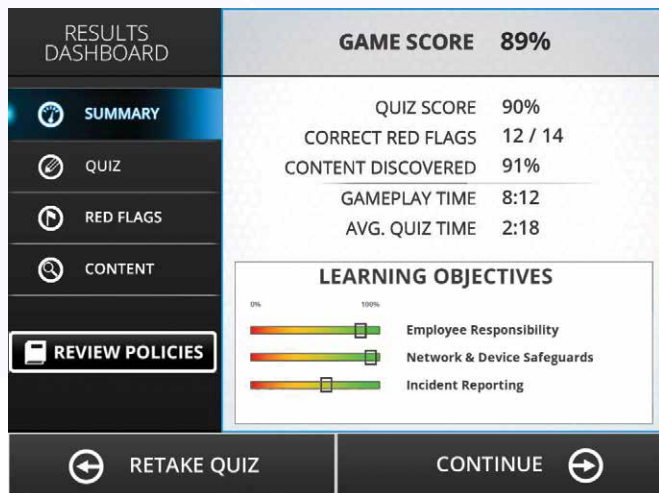
The True Office analytics dashboard gives instant feedback on the player's performance.

creating, editing, or contributing to a wiki page; starting or participating in a discussion thread; posting or responding to a blog; posting a comment on content (docs, wikis, blogs, discussion threads); viewing pages; rating content; voting on content; liking content; and/or tagging content. That way, organizations can keep tabs on who is using the Microsoft collaboration tool for what, and managers within those businesses can recognize employees that best contribute to such collaborative efforts and in the process encourage future behavior along these lines.

Technology from Badgeville, which recently closed a C series round of funding that brought in $25 million, is also used by such major companies as Dell, Deloitte, eBay, Samsung, and Universal Music.

Another company, True Office, offers a truly unique twist on gamification in the workplace.

The company has gamified compliance applications, which can run on mobile devices and desktop computers, explains Adam Sodowick, True Office founder and CEO. Targeted primarily at financial services organizations like banks, these apps are designed to train employees on the often complex issues related to compliance. Applications available include anti-bribery and corruption, diversity and inclusion, HIPPA, information and data security, and workplace discrimination prevention.

Organizations using True Office applications, which are designed in a scenario-based way, create a higher level of employee engagement and retention; help employees to better understand complicated laws and regulations; and can decrease risk by identifying the bottom 10 percent of employees who have the lowest levels of understanding about compliance, Sodowick says. True Office apps have been rolled out in beta at some of the world's largest banks, data and IT security businesses, and companies in the pharmaceutical industry, he

says, and the solution becomes generally available late this month (in November).

Driving certain behaviors in the workplace via gamification makes sense when you consider that 63 percent of employees say they are not fully engaged in their work, says Elise Olding, research director at Gartner, who refers here to a 2012 study by global professional services company Towers Watson.

Julie Gebauer, managing director of talent and rewards at Towers Watson says that when workers are not engaged it can lead to lower productivity, weaker customer service, and greater absenteeism and turnover rates.

"Without attention and interventions aimed at improving on-the-job support for employees and creating a sense of attachment to the organization, this trend could worsen – and directly affect business outcomes. Companies have known for years that employee engagement is important to business performance."

Many of the above examples of how gamification is being used in the workplace have to do with motivating workers in office environments. But programs using gamification are also in place in other kinds of workplace situations, like at restaurants, notes Gartner's Olding.

A restaurant called Not Your Average Joe's is using Objective Logistics gamification technology to track parameters such us how quickly food is served and customer satisfaction; motivate wait staff by giving them specific up-sell challenges (sell five appetizers within two hours, for example) and rewarding winners with the ability to pick their hours. Olding says the gamification effort is responsible for increasing sales by 1.8 percent and increasing gratuities across the chain by 11 percent.

Another company called Stella & Dot uses gamification to motivate and train the independent sales representatives that sell its jewelry. During training, sales reps create avatars, which the company recognizes with virtual rewards following various successes.

When creating programs that leverage gamification to drive certain behaviors it's important to consider the culture of the organizations, departments and individuals being targeted by those efforts, Olding notes, adding that not everybody is motivated by the same things. Sales people tend to have very different interests and work styles as compared to, say, folks in R&D, who may not be comfortable having their names posted on a leaderboard, she adds.

Companies implementing gamification efforts also need to be sure to design programs so people can't game the system. It's also important, she says, to plan for different iterations of activities to avoid user burnout.

"I don't see a lot of organizations planning for iterations, and looking for game fatigue, and designing with that cheater in mind," she says. **I**T

MultiAlert911 – Finding Gold on the ITEXPO Austin 2012 Show Floor

Doing the show floor walk at technology conferences and gatherings can easily turn into a mind-numbing exercise. A telecom and wireless communications event such as ITEXPO is even more challenging as almost every company in attendance has products on the show floor that require a good amount of time and explanation to fully understand and get a handle on. Those of us who do this sort of thing for a living are always on the lookout for that one product that is different and special – instantly understandable, elegant in execution, and offering immediate and valuable services.

TMC's
Tony Rizzo

To our pleasant surprise, we came across a company last month at ITEXPO that delivers exactly that special product. Newly available, and as far as we are able to discern, the only such product now on the market, is Conexiant's MultiAlert911, a platform that allows E911 calls to be automatically distributed to any number of people – key contacts – who need to know about any given emergency in real time, as it happens.

Any user who signs up for the service – which will typically be offered through a carrier or service provider as an add-on service at a cost of about $2.25 per month – will gain access to a web-based MultiAlert911 management console that will allow the user to designate and pre-authorize multiple recipients to receive notification of any 911 call originating from any set of designated phone numbers. For example, a user may set up a grandparent phone number to alert any number of people – relatives, doctors, lawyers, nurses, a security office, and so on – should a 911 call be place from that number.

But that in itself isn't the exciting part of MultiAlert911. The user can also set up how each recipient should receive an alert – which can happen through a phone call, through an SMS message, or through e-mail. Further, a user can also designate certain contacts to receive a recording of

the 911 call, and even more important, can designate contacts to actually be able to listen in on the 911 call as it happens. Conexiant refers to the ability to listen to 911 calls as ListenIN, and the technology behind it is now patented by the company.

Conexiant is a VoIP player with an extensive network of VoIP service providers in hand, and we anticipate that the company will be able to get significant distribution for the new service. Conexiant now provides the service directly through its own website, but the real money for the company will be in getting its collection of VoIP service provider customers to white label the service as their own and to offer it to a huge collective subscriber base. Conexiant also offers an "iFrame" that will allow its customers to easily incorporate the web management page into their own websites and to build their own site brand attributes into it.

The benefits of MultiAlert911 are easy enough to grasp – that is part of the beauty of the product: The benefits are easy to understand, the value of the benefits are indisputable, and the product serves an immediate need. It is a much-needed service, and the collective means of alerting users, including the ability to listen in to a 911 call in real time, will be of significant value – depending, of course, on the nature of the emergency.

MutliAlert911 as it currently exists is already a very valuable service. But there are a large number of capabilities that will also grow from the technology. There are going to be plenty of opportunities to extend the service into the health care industry, for example. Doctors in particular will be able to use the service to stay connected with patients and the medical teams that may be involved with any given patient. Any medical situation can be monitored, and appropriate pre-authorized people will be automatically notified in the best manner for each to be notified. It can happen within the context of a 911 call or it can happen outside of a 911 call.

It will be interesting to see how Conexiant itself looks to extend the multi-alert capabilities of the platform.

We are excited to see Conexiant deliver on something we believe to be a real innovation within an otherwise well-established marketplace – E911 is certainly no longer new, and a number of companies operate in the space. Differentiation is difficult to pull off, but Conexiant's new patented technology certainly does add a new level of differentiation for the company. **IT**

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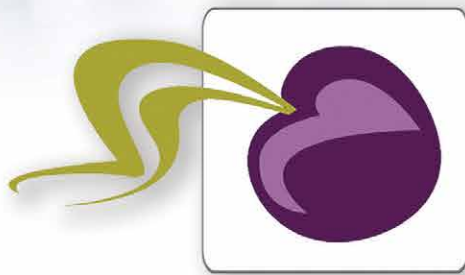
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Unified Communications Appears to be Ready for Takeoff

For those of us attending the annual ITEXPO Austin event in Texas, paying attention to things where attention should be paid is an occupational delight. And, the interesting thing about this year's event in the context of IP-based integrated enterprise communications is two-fold.

First, as the keynotes from ShoreTel, IBM, Siemens and Cisco all highlighted, after over a decade of a bumpy road, it appears unified communications will finally really arrive in enterprises of all sizes. As the result of a perfect storm of technology, economics, the need for enterprises to rapidly accommodate personal devices, social networking and mobility, the virtualization of where work is done and when, and the needs of an increasingly demanding and disloyal customer base, UC really is on the cusp of fulfilling its promise. Indeed, as a skeptic myself, it seems safe to say that UC adoption will soar, and soon.

Second, the customer, whether doing something as mundane as trying to obtain customer service or buy something from your company, is driving the market.

Consumerization is necessitating IT departments go multichannel as quickly as possible so that they can interact internally, with partners and customers anyway somebody wishes to interact. This is particularly true in the areas of accommodating mobile interactions and social media. Plus, the virtualization of work has meant that employee expectations are that their personal devices will enable them access to the full suite of business information they need to the applications and collaboration tools they require to produce compelling results.

On the consumer side of things, customers do not care about technology, just satisfaction and delight when they are interacting. They want what they want when, where and how they want it, and they want it now. In a corporate context they want it securely, according to defined and enforced policies and rules, and without surprises in terms of performance by either their devices or the networks and resources on which the devices rely.

The common thread is that if technology is going to be purchased by enterprises, it is going to be for the purpose of empowering people/ teams in support of the business imperatives of the enterprise with a laser-like focus on improving how users (internal as well as external) experience a company's processes, brand and people. This is at the heart of what is called in industry jargon things like, improving the user experience, changing the conversation, applications fluency, etc.

Another interesting recurring theme is that one size does not fit all when it comes to UC implementation, especially as it relates to considerations as to if, when, how and what is going to be moved to the cloud. Reality is that success in the UC market is going to be about making the user experience, internal and external, simple and secure.
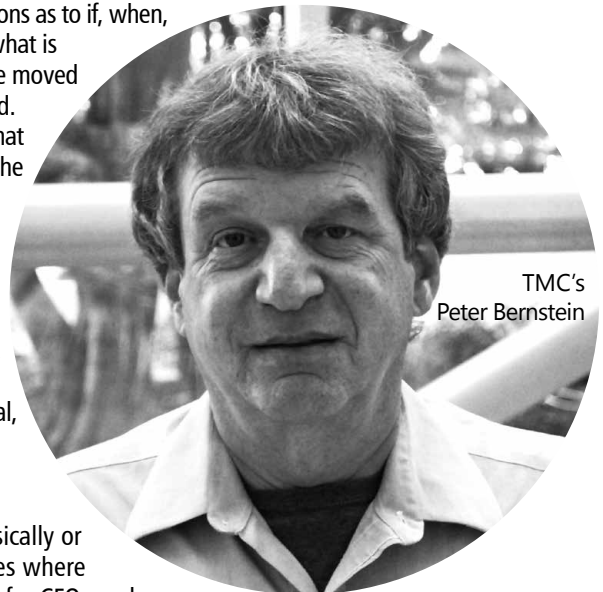
TMC's Peter Bernstein

What physically or virtually lies where is relevant for CFOs and IT asset managers based on things like economics, corporate culture, and possibly compliance and other risk management concerns. However, at the end of the day the considerations are moving targets, and the vendors having success are the ones that offer the full portfolio of UC capabilities available as premises-based, cloud-based or hybrid solutions, with the flexibility of shifting where the functionality resides and what business model can be employed based on a holistic view of the business imperatives of enterprise customers.

While the term customer experience may have already been over hyped by our industry, the reality is that enabling increasingly virtual teams to become high performance, and being able to interact with customers on their terms, are going to be critical to success going forward. This is true for vendors as well as their customers.

In other words, everything UC has long promised has become a business necessity and not a nicety. And, the good news is that the business cases for UC are sound, the solutions are impressive, and the skies are likely to be cloudy all day.   **IT**

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ITEXPO in Brief

ANPI Expands Enterprise Focus

ANPI ZONE is perhaps best known for its business as a wholesale provider of long-distance, SIP and tandem services to the nation's small rural independent telcos. In fact, the company is the largest provider of wholesale services to this group of telcos, serving nearly 500 of them today. However, ANPI also caters to enterprise and SMB customers, and the company is moving to expand its focus on this customer group going forward. David Byrd, who recently joined ANPI as chief marketing officer, is helping lead the company's charge to win more enterprise and SMB business. The company aims to capture more enterprise and SMB business, he says, by providing these customers with high-quality SIP trunking and other cloud solutions. These services are delivered via ANPI's recently completed network, which is powered by Sonus Networks equipment; wholesale customers are also served from this platform. Today, about a third of ANPI's revenue comes from the wholesale side of the business, while the other third is derived from enterprise and SMB customers. Within the next three to five years, says Byrd, ANPI aims to see 60 percent of its revenue come from enterprise and the other 40 percent come from wholesale.

AudioCodes Introduces HD IP Phone

AudioCodes Inc. showed off its new 420HD IP Phone last month at ITEXPO Austin in Texas. This is the first phone AudioCodes has developed that is designed around Microsoft Lync, explains Alan Percy, AudioCodes' director of market development. He adds the phone is designed from the ground up for unified communications applications, which means for example that it displays presence and manages presence from the phone screen as opposed to requiring the user to get that information from a PC. The phone, which came out earlier this year and retails for around $200, is HD capable; includes integrated network management; and leverages AudioCodes DSP technology, which Percy says allows the company to do "creative things" with the voice compression and speakerphone to deliver a high quality of voice. And because the phone has a lot of feature functionality, AudioCodes owns a lot of the intellectual property around the phone, and the device is not "over distributed," he adds, resellers are actually in the position to make money on this device.

Consulting Firm Daitan Group Sells its Engineering Experience

Daitan Group has been able to amass significant engineering experience as the Brazil operations at major vendors like Alcatel-Lucent, Ericsson and Motorola Mobility have downsized or shut down. For example, says Graham Holt, director of sales at Daitan Group, the Motorola Mobility Group in Campinas recently shut down, giving Daitan Group access to a treasure trove of engineering talent. Campinas has become a hub of telecom business in the past 20 years, explains Holt, who says that Brazil is home to the fourth biggest telecom infrastructure in the world. But recently many telecom companies have downsized their personnel, which has benefitted Daitan Group both in terms of available talent and in terms of the opportunity to provide those telecom companies with outsourced services. Daitan Group helps telecom equipment companies and network operators create product roadmaps, outsource support for existing products they no longer want to support, do core development, and provide consulting for other efforts. Fixed mobile convergence, picocells and VoIP are among the technologies involved in recent Daitan Group jobs.

Open Source Outfit eZuce Seeks to Add SIs

Systems integrators are a key channel partner target these days for eZuce, John Drolet, vice president of channel operations at the open source software company, told INTERNET TELEPHONY last month at ITEXPO Austin in Texas. The company has 30 existing U.S. channel partners, but it aims to bring that up to around 100 channel partners over time, he says. Value-added resellers have helped eZuce bring its software to the small and medium business market. But because eZuce products are standards-based and can work with multiple other solutions, some VARs are challenged to make as much money with its solutions as they can with competing proprietary offerings for which customers have to purchase multiple pieces from the same vendor, he says. So eZuce is working to expand its base of partners on the systems integrator front. Drolet says systems integrators are surrounding the eZuce solution with things like application integration, desktop management, help desk and system engineering.

GENBAND Promotes Enterprise Business

GENBAND is known as a leading voice infrastructure supplier for the carriers. But the company also has an enterprise business, which it was promoting last month at ITEXPO Austin in Texas. At the event, INTERNET TELEPHONY spoke with Andy Asava, GENBAND's senior vice president of enterprise sales, about the enterprise side of the company's business. Asava says GENBAND's enterprise business has taken its portfolio of carrier-grade, multi-tenant cloud solutions that GENBAND already sells to carriers and packaged it for the enterprise market. That solution delivers unified communications including VoIP, video and contextual collaboration, he says, with five nines or six nines reliability. GENBAND, which began talking about its new enterprise business in March, works with value-added resellers, systems integrators and service provider partners to bring its solutions to enterprise customers. Among its channel partners is communications system integrator Black Box Network Services, with whom GENBAND was sharing a booth at ITEXPO West. Black Box is a platinum member of the GENBAND Partner Advantage Program.

Ingate Unveils High-Cap E-SBCs, New Trial & Training Options

Ingate Systems has expanded its product line, its free trial offer and its training options, the company told TMCnet last month at ITEXPO Austin in Texas. New products include the Ingate Firewall 2970 and Ingate SIParator 97 enterprise session border controllers. Martin Feuk, Ingate's general manager, told INTERNET TELEPHONY that these products are able to support up to 8,000 calls. Previously, Ingate E-SBCs topped out at 3,000 calls, he explains. Ingate also recently launched

a program through which organizations can try Ingate's software-only E-SBC free for 30 days. The software can install on any PC, which Feuk says makes it easier for customers to try before they buy. On the training front, Ingate recently forged a partnership with The SIP School, which provides online video courses on SIP and VoIP along with industry-recognized certifications. As a result, The SIP School will offer Ingate-specific coursework; courses addressing Ingate solutions are available to customers and Ingate resellers now.

Kindsight Delivers Consumer Security Solutions

Whether they are using wired or wireless networks, users need to go beyond client-based antivirus solutions to ensure their devices and data are secure. They need to adopt solutions that also address security at the network level. That's the word from Brendan Ziolo, vice president of marketing at Kindsight, which partners with network service providers to outfit consumers with secure solutions. Kindsight, which is a spinoff of network infrastructure expert Alcatel-Lucent, which is still the majority owner, puts its equipment in its service provider partners' networks, so end user don't need to install anything, he says. (Although, he adds, the company does offer a mobile app that scans for malicious apps on users' wireless devices and can help them remove problematic apps.) SaskTel of Canada earlier this year launched a security service based on Kindsight technology. There are also U.S.-based service providers leveraging Kindsight's solution, says Ziolo, who declined to provide the names of those carriers.

OnRamp Highlights HIPPA-Compliant Data Center Operations Solutions

HIPPA compliance has become a hot topic in high tech circles in recent years, but few companies in data center operations are as dedicated to providing solutions on this front as is OnRamp Access Inc., indicates Chad Kissinger, the company's founder. To address HIPPA compliance, OnRamp has created a three-step process to ensure it and its customers are protecting customer health care data in line with government regulations. First, it gathers information on customer networks and how they operate. Then, it assesses security risks. And then it create a risk management plan for how it will maintain the customer's infrastructure in a fashion to meet the customer's needs and that is compliant and auditable, Kissinger explains. He adds that also makes configuration (and related requirements) a lot easier down the road as customers add new servers, firewalls or other infrastructure.

UNSi Offers Same IP Failover Solution

UNSi recently come out with Same IP Failover, a business continuity and disaster recovery solution that includes connectivity and a managed appliance. Robert Condito, senior director of channel development at UNSi, explains that SIF is a more affordable option for enterprise customers that have multiple networks for IP and would otherwise have to implement border gateway protocol to recognize incoming traffic on both their primary and secondary circuits. This latter, do-it-yourself method, he says, can be a costly and complex endeavor. In other recent UNSi news, the company in September announced that it has completed major network upgrades. It expanded is Dallas and Denver points of presence into full border gateway interconnects that provide carrier Ethernet, DIA, MPLS and VPLS services. It also built out a full BGI at its newest PoP in St. Louis.

Votela Enables Siemens OpenScape Cloud Services Offering

Everybody seems to like to talk about the cloud these days. But selling cloud-based services requires a lot more than simply installing shared gear in the network and allowing multiple customers to be served from it and billed for it on a monthly basis. The move to the cloud also entails an entirely new way of billing and sales compensation, not to mention other underlying systems that address taxation, compliance, rating and mediation, E911 and carrier services. Votela helps outfit VARs, resellers and ISPs with all of the above as they transition to the cloud, says Adam Cole, the company's CEO. Votela also provides resellers with online training materials and is readying a cloud services price quote generation engine that will create private-labeled quotes for resellers. Today Votela is both a distributor of Siemens OpenScape Cloud Services and a supplier of the above-described middleware support solutions to enable other distributors to quickly and easily bring this Siemens solution (and offerings from other vendors) to market. Avatar TechVentures is the most recent company to sign on with Votela to use its underlying solutions to deliver Siemens OpenScape Cloud Services; that relationship was announced last month at ITEXPO in Austin.

ShoreTel's Blackmore: 'Only the Paranoid Survive'

In closing his ITEXPO Austin keynote speech last month, ShoreTel CEO Peter Blackmore borrowed the phrase popularized by former Intel executive Andy Grove. "Only the paranoid survive," said Blackmore, who added that in the unified communications industry that sentiment "is very very relevant." UC is a very fast-changing market, he added, and one that will cause some vendors to move away from the UC space and that will result in other vendors leaving the premises-based UC solutions space in the next couple years. However, he added, ShoreTel will not be one of them. "Yes there are two ways of providing a [UC] service to a customer, but they are one market, not two markets," he said. He went on to say that the three keys to success that will differentiate the winners from the losers in the UC space are user focus (which encompasses GUI, video as part of the UC paradigm, and interoperability and integration with other solutions and software); mobility; and the cloud and SaaS model. "We are going to move faster than ever before because we want to seize the opportunity," said Blackmore.

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By Paula Bernier

SANGOMA

Sangoma's New Strategy Bears Fruit

NTERNET TELEPHONY in May ran a cover story about Sangoma's new strategy to rev up growth via the delivery of new turnkey solutions, a significantly ramped up product release schedule, and global expansion. In it, Sangoma President and CEO Bill Wignall talked about his three-step process to energize the company and propel growth by better meeting the needs of customers and prospects via this strategy.

Apparently, the strategy is working.

Sangoma Technologies Corp. this summer, in closing its fiscal year 2012, reported its best results ever. Preliminary revenue for the fourth quarter of fiscal 2012 ended June 30, 2012, was $3.7 million. For the full fiscal year it was $13.8 million. These are increases over fiscal 2011 of 14 percent and 16 percent, respectively – and they are records for both the quarter and the year.

"I am very pleased that our preliminary results indicate a strong close to our fiscal year despite a backdrop of sales downturns amongst some of our competitors," said Wignall in announcing the good news. "We have seen revenue softening in certain markets, but the impact of new products has kept our momentum going despite the turbulent times."

The company has been able to build momentum by helping service providers and enterprises adapt to and embrace the latest in networking technology and communications capabilities – and without requiring heavy upfront costs.

For example, Sangoma delivers gateways and transcoding devices that enable traditional service providers to better compete with the cablecos and mobile broadband providers of the world. On the enterprise side, Sangoma is helping businesses more easily and affordably adopt the popular Microsoft Lync unified communications platform by providing them with integrated PSTN gateways and their new Lync Express, the only all-in-one Lync Server appliance with a built-in VoIP gateway.

Sangoma built its reputation as a supplier of the highest quality voice and data boards, a business in which it's been the leading player for nearly three decades. It's also been a leader on the open source front. And while the company is committed to continue selling and investing heavily in its board business and supporting the open source movement, Sangoma at the behest of Wignall has set a course to expand its product portfolio dramatically.

"By focusing on our customers' needs and delivering more products that meet more of those needs, at the same levels of quality that we always delivered, I'm certain we will continue on this upward trend," said Wignall. "The changes that we put into action have established a strong foundation that enables a very nimble response to market and customer needs. This new flexibility has been a driving force in the company's record-setting pace on the innovation and financial fronts."

The integration of technology acquired with the 2011 addition of U.K.-based VegaStream to Sangoma, has strengthened and broadened the scope of the company's solutions entering the market. The Vega Series of standalone gateways has provided a launching pad for a new Session Border Controller (SBC) and a carrier-grade VoIP transcoding gateway. According to Frederic Dickey, Sangoma's director of product management, "the synergies that became possible with the combination of technologies has yielded some very powerful solutions that exceed the potential of either company prior to the acquisition. And the speed with which our development teams are turning

out new products is a testament to the quality of the core elements."

Among more than ten new market-driven products introduced by Sangoma this year, the Lync Express appliance has garnered a great deal of attention. Making its debut at the Microsoft Worldwide Partners Conference in June, Lync Express has captured the attention of many integrators and businesses looking to deploy Microsoft Lync's unified communications capabilities across the enterprise. The standalone appliance from Sangoma includes all of the core Microsoft Lync call administration and server functions along with an integrated VoIP to TDM gateway for connection to the PSTN.

"We have recently seen increased usage of our NetBorder SS7 VoIP gateway in the U.S. and European service provider markets. Carriers are now taking advantage of the highly competitive feature set, including SIGTRAN, MEGACO, SNMP and Radius support. We also have had great traction with the high-volume NetBorder Transcoding Gateway, (supporting voice codec transcoding for up to 4,000 SIP Sessions,) the Vega400 SBC (providing secure IP-IP connectivity for up to 60 simultaneous SIP sessions,) and the Sangoma STM1-Mux (terminating fiber and breaking out individual E1/T1 spans on-premise.)"

In the enterprise space, capacity expansions in gateway and board lines have included new one- and two-span Vega gateways (providing enterprise-level features for SMB deployments,) the A116 16-span digital telephony board (doubling the single server slot capacity of any board in the marketplace,) and enhanced Call Progress Analysis software for contact centers.

The common thread that runs throughout Sangoma's quickly growing product portfolio is that all of its solutions connect networks together, enabling customers to integrate new products and technologies with their existing infrastructure in a way that minimizes

SANGOMA

Businesses Can Get the Latest and Greatest Technologies…Without Breaking the Bank

For consumers, it's a relatively simple step to adopt the latest gadget or wave of technology. Whether it's an iPad or an Android smartphone, the process for using any of the latest mobile devices is relatively the same. All it usually takes is a few hundred dollars and a couple of hours to learn a new feature set, and relatively painlessly, the consumer is at the leading edge.

Of course for businesses, a vastly different paradigm exists. While a business owner may recognize the benefits of the latest devices, services, or trends, the costs of obtaining and implementing, combined with the potential disruption to the organization, could have dire consequences on the viability of the business. Even for communications technology providers, keeping up with new trends and offerings is a challenge.

For businesses that are typically focused on delivering the best services and products to their customers, making the correct choices for efficiently leveraging new technologies can often be confusing and difficult. In times past, it was often the core telephony platform provider that served as the trusted advisor to businesses. Comments like "the safest and most efficient way to get new features and capabilities is to implement them in the core", and "upgrading the core PBX or telephony platform will deliver the most value and flexibility", were common themes from monolithic platform providers.

However, the hard costs of such an upgrade, combined with the potential disruptions of service (or employee productivity) often make it difficult to consider such a sweeping upgrade to the core infrastructure. By leaving the core infrastructure in place and connecting to new gear or services through a flexible, intelligent gateway, the benefits of both old and new can be realized with minimal impact. The

newest term coined to describe this process is Integration at the Edge.

For example, in the United Kingdom, the Citizen Advice Bureau (CAB) recently converted PSTN connectivity from ISDN BRI circuits to SIP Trunks by adding Sangoma Vega TDM-to-IP gateways at two key offices. The change improved the operational efficiency of both centers while significantly reducing recurring monthly costs. Interoffice and PSTN call traffic was routed across the SIP trunks, but the legacy PBX at each site continued to provide service using the existing dial plan and equipment. And new enhanced load-sharing and call center features were extended across the IP network to balance call distribution and efficiently support 24x7 customer service.

Even in the all-IP network that some businesses have already adopted, multi-site deployments of complex services such as unified communications can be difficult if SIP implementations are different (a common occurrence between manufacturers,) or the supported voice codecs differ between sites. Rather than undertake the expense of "upgrading" all sites to homogenous systems, inserting a transcoding appliance and signaling gateway at the juncture between systems can simply and cost-effectively smooth out the interworking and let business proceed unfettered.

While every business can have unique needs, it is clear that for many, the realistic and affordable path to keeping pace with the latest advances in technology is the integration of services and capabilities at the edge of the network. Getting the most out of existing assets and leveraging the flexibility of putting new services where they are needed when they are needed will help businesses get the new features they want and need without breaking the bank.

interruption and keeps costs manageable. And that is clearly what customers are looking for.

"Sangoma's commitment to deliver solutions that address real-world business challenges enable us to quickly and confidently launch new solutions that not only satisfy our customer requirements, but also contribute directly to our bottom line performance," said Luiz Roberto Pacces, chief operational officer of CallFlex, a Sao Paulo, Brazil-based a developer of telecommunication systems. "Span density, performance, and reliability all combine to make the high-density A116 just the latest reason that Sangoma is our first choice for telephony boards."

As a company, Sangoma has been on the move as well, not only in terms of increasing the number of products it brings to market, but also in light of its global expansion. Indeed, Sangoma and its distribution partners now provide solutions to customers in key markets in Europe, Asia, Latin America and North America.

"The fact that we have had our best revenue year ever, 16 percent higher than last year and an all-time high for Sangoma, proves that our strategy to broaden our portfolio, target new customer segments and expand geographically is working," noted David Moore, Sangoma's chief financial officer. "For the second year in a row, sales have grown consistently from the first quarter through the fourth, we are profitable and with a strong balance sheet, all of which is extremely encouraging when one considers the poor economic conditions and the performance of many of our competitors. All of these indicators demonstrate that Sangoma's strategies are bearing fruit for the company, for our customers and for our shareholders."

For more information on Sangoma, its products, and the value it brings to customers, visit www.sangoma.com.

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Network Infrastructure

Toolkit on Environmental Sustainability for the ICT Sector

For the past several years the ICT industry has heeded the call that it needs to develop technology that is more sustainable, more energy efficient and in general much kinder to the environment than what it developed in the past.

Industry players have tended to come to that conclusion on their own, as they have individually adapted corporate responsibility priorities that include minimizing their impact on the environment – and their CFOs have mandated they cut opex without impacting customer service. The result has been a lot of industry resources dedicated to figuring out how to accomplish sustainability goals that all players are seeking. This is one area where if the industry could pool its expertise to establish a set of best practices and principles, the individual players could then focus on developing the products that adopt those best practices and their customers' other needs for reliability, flexibility and scalability.

And that is exactly what has happened with the publication of the International Telecommunications Union's Toolkit on Environmental Sustainability. This comprehensive technical document outlines environmentally conscious design principles and best practices that all players in the industry can adopt. It will help them provide products that have a minimal impact on the environment from early design development all the way through to end-of-life disposal. Alcatel-Lucent was among the some 50 industry players that worked on this document, which reflects the thinking of committed experts from throughout the industry.

This new toolkit promotes practices on such critical issues as manufacturing and usage. For example, the usage section champions approaches such as default power-downs for subsystems not in use, mechanisms that indicate how much water and energy is being used and easy-to-use controls for resource-saving features.

A fundamental principle advocated in the toolkit is that one of the best ways for the ICT industry to provide its customers with more sustainable products is to build them from the start using environmentally conscious design principles and best practices. It stresses that product design needs to cover five green focal areas to create sustainable products: energy, product weight, packaging, hazardous substances, and recyclability.

Those of us who are product designers will use the toolkit to ensure our products are state-of-the-art in this area, and our customers can use it to determine if the equipment they are deploying in their networks meet their own high expectations for sustainability. The ITU toolkit covers both network infrastructure equipment and corporate communications systems, in particular data centers, desktop infrastructure and telecommunication networks.
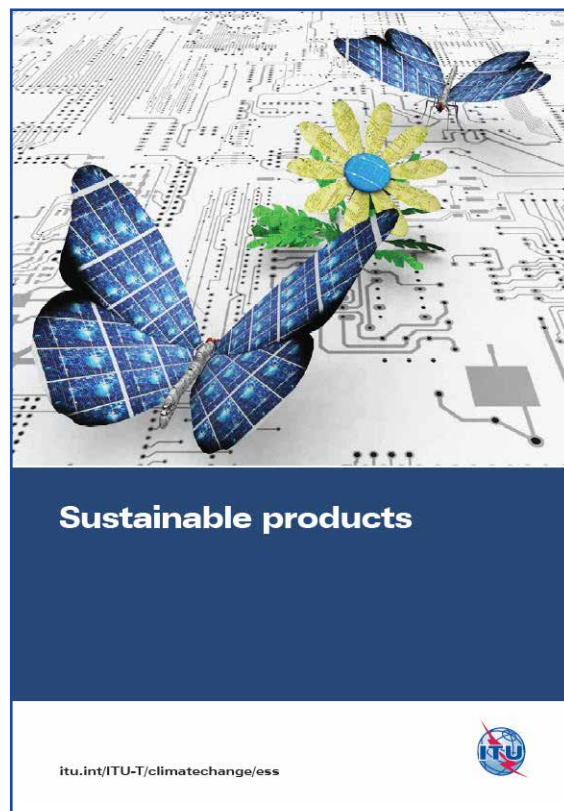
Today our industry is responsible for only a small portion of all the energy used and its associated environmental impact, but that portion is growing as demand for communications services mushrooms, adding to the urgency needed to minimize energy use and impact. Other industries look to the capabilities ICT offers to help them do their part to combat climate change, pollution and other assaults on the environment. We need to make sure that when we help other industries move to being more environmentally efficient we are moving forward too. **IT**

Tom Okrasinski is senior manager, Bell Labs CTO Environmental Engineering.

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BRINGING IT ALL TOGETHER

Amadeus Rocks Open Source

A report commissioned by Amadeus IT Group called Open for Business urges enterprises to adopt open source systems and offers advice to companies that are thinking about replacing legacy or proprietary systems with open source systems. The report also points out that using open source software for running an enterprise is 20 percent cheaper than doing it using proprietary systems. Amadeus IT Group's Executive Vice President of Development Herve Couturier says that the company moved to open source software to avoid being caged by licensing fees and to attract the latest talent in programming, which favors open source software.

Intermec Intros HTML5-capable Browser

Intermec Inc.'s new HTML5-capable browser allows for the development of OS-agnostic web applications that can run on iOS, Android and select Intermec rugged mobile computers. "Intermec's new HTML5-capable browser offers enterprises the flexibility to equip their mobile workers with a modern user interface and latest business logic, along with the right device for their specific working conditions and usage demands," says Earl Thompson, Intermec senior vice president of the mobile solutions business unit. "Offering much more than the next iteration of web language, Intermec's HTML5 offering extends the web paradigm to a whole new class of future-proofed applications by allowing for them to be developed and deployed cross-platform." Intermec's HTML5 browser for Windows Embedded Handheld is built on a Webkit engine, and is preloaded and free of licensing fees or license activation requirements on Intermec CN50, CS40, CN70, CN70e and CK70, and is available for free download for the CK3, CK71 and CV41.

VSI Offers HTML5-based CRM Solutions

Vertical Solutions Inc. has released HTML5-based mobile versions of its CRM software solutions. The new mobile version of its CRM/field service management solution enables companies to deploy one version across multiple mobile devices and platforms, including iOS, Android, and Windows. "Companies need to cope with today's BYOD – bring your own device – culture," says Ron Wegmann Sr., CEO of VSI. "By building mobile versions of our field service management and CRM solutions on HTML5, we can offer a truly platform- and device-agnostic solution to help companies manage their service operations."

Thirdpresence, appMobi Join Forces

Mobile application development toolkit provider appMobi is integrating Thirdpresence's video publishing platform and HTML5 player technology into its solution. That will enable appMobi developers to easily publish and mon-etize video in HTML5-based mobile apps, according to the companies. "We are focused on making HTML5-based cross platform app development easier and more profitable," says Sam Abadir, CTP of appMobi. "Thirdpresence's technology eliminates the pain of supporting video in mobile apps, and will allow our developers to create engaging apps with video content that work across all popular hardware and OS platforms."

Salesforce Addresses BYOD with HTML5 Solution

Salesforce.com is bringing its solution to any mobile device via the release of a HTML5-based solution called Touch. It enables mobile employees of companies using Salesforce to enter, access and collaborate with data in Salesforce via iPhone, iPad and Android devices. Adam Seligman, vice president of developer relations at Salesforce, says: "We're off to the races and now the developer community is unleashed to write HTML5 and native apps."

Red Hat Reports Financials

Red Hat's total revenue for the second quarter was $322.6 million, an increase of 15 percent from the year ago quarter. Subscription revenue for the quarter was $278.8 million, up 17 percent year-over-year. "Our double-digit growth was driven by demand for Red Hat's open source technologies that are key to creating innovation, scale and flexibility in our customers' data centers and their businesses," states Jim Whitehurst, president and CEO. "At Red Hat, we firmly believe in the strength of community-powered innovation. In early September, we were pleased to be recognized by Forbes Inc. on its list of the World's Most Innovative Companies. We are also proud that our customers who have built mission-critical systems on Red Hat technologies are also reflected on the Forbes list of innovative companies."

InfiniteSkills Offers CreateJS Training

Software training firm InfiniteSkills Inc. has introduced its Interactivity with HTML5 and CreateJS Training Tutorial, a course designed to help web designers learn to program graphic animation and interactive content in HTML5 using the CreateJS platform. HTML5 is the first version of the Internet standard markup language to include an element that allows for scriptable graphics. Known as the Canvas element, this component of HTML5 makes it possible to program 2D graphics and bitmap images directly into HTML5. CreateJS was engineered to make working in the Canvas element more intuitive, aiming to be useful to programmers used to working in Flash while maintaining JavaScript sensibilities. InfiniteSkills' Interactivity with HTML5 and CreateJS Video Tutorial introduces the CreateJS format to both beginning and experienced users.

Security

How to Lessen the Likelihood of Password Security Breaches

So far this year, millions of passwords and password hashes have been leaked from high-profile companies including eHarmony, LinkedIn, and Yahoo. At the end of 2011, Stratfor also fell victim to a password security breach when the hacktivist group Anonymous released more than 800,000 password hashes along with personal information and credit card numbers for its users.

In the midst of all these breaches, companies need to be asking themselves key questions such as: Were any of our employees' passwords breached? (The answer here is likely yes.) Do any of those employees use the same password on our corporate network as they did on the compromised sites? (Again, probably yes.) And, if so, have all of those passwords been changed? (Not likely.)

While answering these questions is quite difficult, they illustrate the overarching point that more attention needs to be paid to password security within enterprise environments. It would be nice to imagine that these recent breaches will result in the universal adoption of two-factor authentication technologies, or at least password vaults, but those changes are not going to happen everywhere for both economic and usability reasons.

I have no doubt that we will see more password compromises in the future. Passwords are the oldest security control that we have, and they are probably the least understood. However, passwords are here to stay, and it is time for corporations to get serious about modernizing the approach that they take to password security.

We need to abandon passwords in favor of passphrases.
Today's passwords are too short. Two years ago, the Georgia Tech Research Institute argued that any password shorter than 12 characters was easily broken with a PC and a graphics processor. Passwords that are longer than 12 characters aren't really passwords anymore – they are passphrases, and we should start using them.

Many of the password rules that systems are enforcing can also be counterproductive. Forcing users to include a combination of random capitalizations and special characters, or frequently change their passwords, makes them hard to remember and leads people to use character substitutions that satisfy the requirements without adding security.

The worst password rule I have encountered is short maximum length, which is destined to result in bad security and makes the transition to passphrases impossible. Instead of imposing maximum lengths, we need to set the minimum lengths higher, and encourage users to create passphrases out of randomly chosen, unrelated words.

Enterprises should adopt proactive password cracking.
A recent study by Cambridge University showed that users will adopt bad practices in passphrase environments just like they adopt weak passwords. Examples include using short words or words that often appear next to each other in natural language. User education can help somewhat with this issue, but if you want to identify bad passwords and passphrases and force users to change them, the best way to do that is to do what the attackers are actually doing – set aside some computing resources to proactively crack your own password hash collection, and notify users whose credentials you've successfully cracked.

Security professionals must acknowledge that passwords and passphrases are going to be compromised no matter what we do.
There are an awful lot of username, e-mail address and password hash combinations circulating in the underground after all of the recent breaches, and these passwords are going to be used to compromise corporate networks.

The Advanced Persistent Threat is already coming into your network bearing legitimate access credentials. Mandiant reported that 100 percent of the attacks they investigated in 2011 utilized stolen credentials, while only 54 percent of compromised machines were infected with malware.

Organizations that are only focused on looking for exploit activity at the network perimeter can't see attacks after they've already gotten in the front door. IT security teams also need visibility into the internal network to detect and mitigate compromises after the walls have been breached.

Most enterprises aren't even performing basic logging of internal network activity. If they discover that a computer has been compromised, they have no way of figuring out what the attacker did next on the network, or which other systems may have been tainted. In fact, Forrester wrote that, "The current state of network visibility is equivalent to putting your head in the sand."

However, good internal network visibility enables you to do much more than just investigate known breaches; it can also help detect them. For example, if an account executive from Florida logs in from overseas while he is sitting in the office, you know something is not right.

Without tighter password security and higher levels of awareness over what is going on within our network environments, it will become increasingly impossible to thwart the ever-evolving threats we are facing today. **IT**

Tom Cross is director of security research at Lancope Inc. (www.lancope.com).

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By Paula Bernier

Performance Monitoring
Ensuring UC Lives Up to Its Promise

Many organizations are spending big bucks on UC rollouts – whether we're talking about full-featured unified communications solutions, all or parts of Microsoft Lync functionality, desktop video, telepresence, or other communications, conferencing and collaboration tools. But performance monitoring tends to be an afterthought. That's unfortunate, as it can lead to UC implementations failing to live up to their promise.

UC Uptake

Blair Pleasant of UCStrategies in a recent report comments that: "The need for unified communications and collaboration has never been greater, and the technologies continue to evolve to meet changing user needs."

And she says that "Trends such as worker mobility, the virtual workforce, the consumerization of IT, bring your own device, and virtualization are helping to propel the UCC market."

The worldwide mobile worker population will increase from one billion in 2010, to 1.3 billion in 2015, accounting for 37.2 percent of the workforce, according to IDC. As a result, most, if not all, businesses will embrace some type of bring-your-own-device program in 2012, Tim Wagner of Samsung, commented at ITEXPO East earlier this year.

The use of video in the workplace is also accelerating.

Bob Romano of RADVISION last year commented to me that he thinks we'll really see things heat up in the video and unified communications space this year.

"While there has been a lot of talk about disruptive technologies lately, I think we'll see steady improvements in the quality, price performance and interoperability of video solutions, which will drive adoption across all market segments instead of what has been a predominately large enterprise, conference room-only solution," Romano told me.

Ken Dolsky, program director for InfoTrack, agrees. And he points to the fact that Cisco and others recently introduced desktop video phones that make setting up a video call as easy as making a phone call.

This ease of use is sure to drive user adoption of video. In the next year, 90 percent of businesses surveyed by IDG Enterprise said they plan to invest in or update unified communications systems. And the firm says that the average annual UC spend is $383,000. IDG Enterprise adds that 74 percent of businesses plan significant investments in UC and collaboration systems over the next three years.

Meanwhile, a recently released InfoTrack five-year forecast on IP telephony and unified communications indicates U.S. spending on these technologies will increase by an average of 10 percent per year.

Pleasant also has put out estimates for what she calls the worldwide total or UC-capable market for premises-based UC and the worldwide net, or true UC, market. She says the worldwide total or UC-capable market for premises-based UC was $12.2 billion in 2011, up 8 percent from 2010, and that that will grow to $20.8 billion in 2016. However, she says these numbers don't necessarily represent the true UC market, because if someone purchases an IP PBX and a conferencing/collaboration product, even if they're from the same vendor, that is not necessarily considered a UC sale. That said, in 2011, the worldwide net, or true UC, market was $2.7 billion, up 20 percent from 2010, she says. And she adds that the component growing the fastest is conferencing/collaboration – which is experiencing a 50 percent compound annual growth rate.

She goes on to say that the difference in revenues between the total UC-capable market and the net, or true UC, market means that there is a huge opportunity for UCC vendors and resellers to seize upon. There is a large untapped market for UCC products and services, with many customers
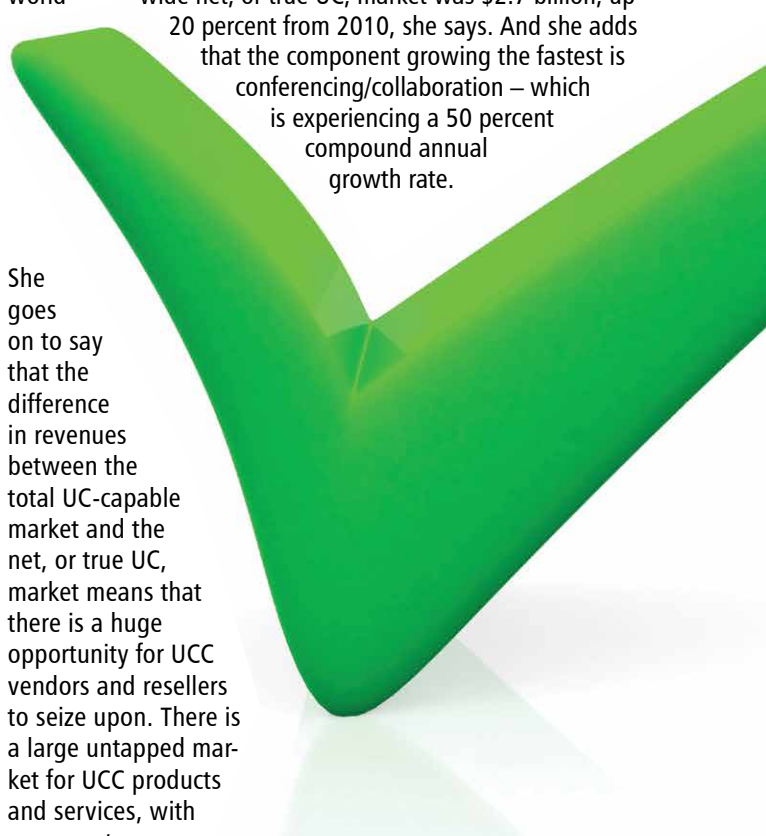
that have elements of a UCC solution but not complete solutions, she says.

Complexity Challenges

Blair's comments illustrate the important point that while UC solutions aim to bring together different communications mediums to increase efficiency and potentially lower the cost of doing business, that doesn't necessarily mean businesses buy all parts of their UC solutions at the same time or from the same vendor. In fact, many organization implement different UC functionality and systems at different times, or bring up different functions of their UC solutions at different points in time. At the same time, we're also now starting to see a more diverse mix of UC functionality.

While early UC solutions tended to focus on bursty applications like instant messaging, today we're seeing more real-time communications like audio and video enter into the mix. And that creates greater challenges at both the network and the application levels. More bandwidth-loving applications means more competition for bandwidth and

other network resources and can result in an unintended drop in performance for UC or other applications on the network. That said, the argument for performing due diligence on the enterprise network to ensure it can handle new unified communications applications – along with the growing list of other enterprise applications like CRM, ERP and various other solutions – is more important than ever. And because networks, usage and applications are ever changing, it's also key to do performance management relative to UC and other applications on an ongoing basis.

There are UC solutions – from Microsoft especially – that offer some level of baked-in performance management. That can give an organization a view into the usage of a particular application, but what businesses really need is a broader set of performance management tools and a view of their networks at large and all the UC applications and traffic running over them.

But most organizations don't spend much time or money on performance management relative to unified communications and the underlying networks that will support UC. That can create problems, especially considering many enterprise networks are already being stretched to their limits.

The Network

Dimension Data's annual Network Barometer report indicates that nearly half of all enterprise networks will be obsolete within five years because they predate current megatrends like BYOD, mobility, pervasive video and virtualization. On average, 40 percent of all devices have been past end-of-sale status for the past four years, according to the report, which includes findings from nearly 300 technology lifecycle management assessments at organizations worldwide throughout 2011.

Bill Haskins, senior analyst at Wainhouse Research, seems to agree. He says that many enterprises he meets with that want
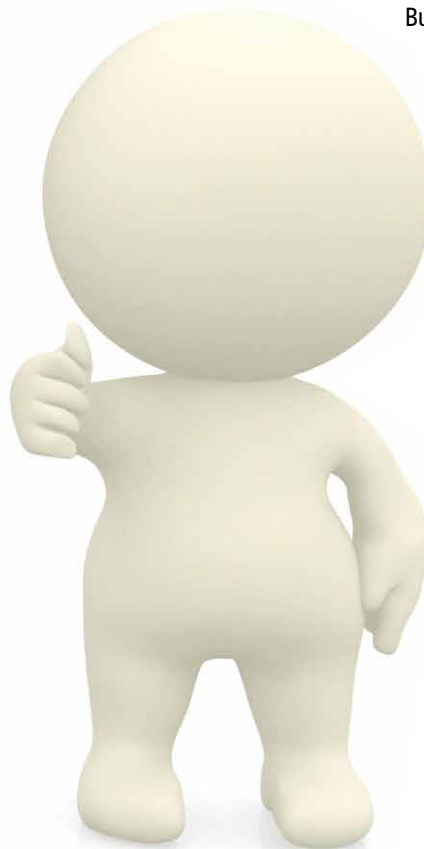
to create UC experiences are already sweating their network assets. Sometimes networking folks at enterprises try to compensate for that by advising corporate not to deploy UC in full because their networks can't handle it. Other times, companies deploy desktop video in mass and then see a spike in traffic that almost immediately trickles down to a subset of people who asked for that capability. These kinds of drop offs in usage, he says, can often be attributed to poor quality video experiences because the enterprise network just can't handle the load.

Ken Dolsky, program director for Info-Track, says that many organizations were turned off by VoIP early on because they failed to ensure networks were up to the task of supporting it.

If organizations don't perform due diligence on their networks before introducing real-time communications like video they may have a similar experience this time around, he says.

Doing tagging at the switch or router can help address new real-time UC traffic like video and audio, Haskins notes, but he says not all enterprise switches and routers have QoS tagging functionality. And sometimes even if an organization has implemented policy for QoS, he adds, that policy is so conservative that is brings down the level of video to an unacceptable quality without even looking at what network resources are available.

Haskins also suggests that enterprises go to the next layer down so they know who's using what applications and what apps are contending with one another. All of the above, he says, will enable enterprises to access their networks, implement policies based on what traffic they expect, implement performance management, and then ease in to UC to validate their assessment assumptions.

While getting the network right is the foundation of any type of UC deployment, that's not as easy as it sounds. Every organization has its own unique network and its own set of UC and other applications running

over the network. But it can be tough to get visibility into what applications are having what impacts on the network.

Randy McGraw, vice president of technical operations at UC solutions provider West IP Communications recently noted, it's amazing how little businesses know about what traffic is making up what parts of their traffic loads. He added that's becoming an even bigger challenge in light of the growing number of business applications coming on to enterprise networks.

"I would suggest that most enterprise organizations do have tools in place to measure and monitor all the techie stuff – the switches and routers and the QoS flow and the capacity at the network layer," says Kevin Kielle, a partner with EnableUC, which helps measure, monitor and improve UC and collaboration usage and adoption. "That's relatively well established because of the voice aspect of UC; people mistakenly often think VoIP is UC; but I don't think that's really UC."

The Application Layer
However, Kieller says that almost no one is measuring the usage and adoption of the different UC modalities. The traditional vendors that grew out of voice don't provide a lot of the metrics necessary to answer questions like how many people are using various aspects of UC. There are a lot of tools that let users do billing-centric things like how many voice minutes are being used, he says, the problem is those things deal with usage but not adoption, so users don't really know who is using UC and from what departments.

Bernard Gutnick, senior director of product marketing at ShoreTel, agrees, adding that it's important to segment network usage by application type.

A Complete View
Steve Shalita, vice president of marketing at NetScout, says that it's important

Steve Shalita of NetScout says it's important to consider UC at the network layer, the application layer and the signaling layer.

for organizations to consider UC at the network layer, the application layer and the signaling layer.

While the network is the foundational piece that controls everything, he says, "the network cannot be the proxy for UC services performance and ultimately user experience."

Organizations do need to look at and understand network performance, because video and voice are delay and latency sensitive, he says. But organizations also need to look at and understand application or payload performance. Understanding signaling, or call control, performance also is key, he adds.

All of this can allow for a great end user experience and a view into the network to enable troubleshooting. To make that happen, it's important to get a good call path and endpoint visibility, says Shalita, so core metrics are coming both from endpoints and network midpoints.

Endpoint metrics offer a sense of what end users are experiencing in terms of echo, voice quality and the like, he explains. Meanwhile, midpoint data offers information on what's physically happening on the network so you can pinpoint the cause of problems. **IT**

IVR Myths Busted: No Standard Exists for Measuring IVR Utilization

By Donny Jackson

This is the first in a series of articles that breaks down popular myths associated with IVR systems and offers tips for increasing utilization. The other two pieces of this series can be found at www.tmcnet.com. The specific URLs are http://tmcnet.com/59204.1 and http://tmcnet.com/59205.1.

Do you know what percentage of calls your IVR system is successfully processing? This data is key to making improvements in IVR system utilization and increasing your return on investment. But few IVR system vendors want you to know your true IVR utilization rate. But before we can improve IVR system utilization we need to establish a utilization baseline.

Businesses are aware that increasing IVR utilization will increase their ROI. After all, a call directed to a live customer service agent costs 100 times more than a call handled through an IVR system. However, it is a commonly held belief that no standard exists for measuring IVR utilization. In the absence of such a standard it is impossible to compare the rates of different vendor offerings or know when you've improved your existing system's utilization rate.

Why it's a myth
Increases in IVR utilization are not easy to achieve: It takes significant time and effort to improve usage, and not every vendor is up to the challenge. Many IVR system vendors would have their customers believe that there are multiple ways to calculate IVR system utilization. Using different calculations or changing them over time gives IVR system vendors an advantage. That's why vendors don't want customers to use a standard form of measurement. As long as customers don't have a way to compare today's usage with tomorrow's – or their system against a competitors' – then the numbers can be tweaked in the vendor's favor.

Busting the myth
It's easy to show an improvement in IVR system utilization when the math is manipulated. However, playing with statistics doesn't change the number of calls going to live customer service agents. It simply changes the way the calls are being counted.

For example, counting customers who hang up during the "please hold" message as "satisfied" rather than "transferred" increases the IVR utilization rate. If a call center is closed (for a holiday, due to weather conditions, etc.), counting callers during this time frame as "satisfied" rather than "transferred" increases the utilization rate during the call center's open hours.

The math can be manipulated to show an improvement in utilization even when the number of calls to customer service agents has stayed the same. The mythical utilization number is just that. It's not real because the math isn't correct.

How to calculate IVR system utilization
The following calculation is a standard means of measuring IVR system utilization regardless of the system you are using:

Transfer Rate＝(Total Transfers)/(Total Calls) x 100
Utilization Rate＝100-Transfer Rate

So, if an IVR system received 200 calls and 50 of them were transferred to the call center, the transfer rate rate would be:

50 / 200 x 100 = 25%
And the utilization rate would be:
100 − 25 = 75%

When using this calculation, it is important to remember that not all calls transferred to the call center are the result of a failure in the IVR system. Almost all IVR call flows have points in them that, for business reasons, direct callers to the call center. For example, callers identified as sales opportunities may be sent out of the IVR system to a live sales agent who is better capable of pitching a product to that individual's needs. Other examples include collection accounts, and fraud flagged accounts.

In general there are three types of transfers: **Business Initiated** – These are cases above where specific business rules mandate the caller be transferred from the IVR to an agent regardless. This includes cases where the caller explicitly selects an IVR option that is not implemented in the IVR and requires an agent.

Caller Initiated – These are cases where the caller is explicitly requesting a transfer to an agent by pressing zero.
Application Initiated – These are cases where the application is forcing the caller to transfer to an agent due to too many user input errors, speech recognition errors, caller timeouts, or overall input attempts.

The business initiated transfers have nothing to do with IVR system utilization and should not be counted against the IVR in the utilization calculation. For this reason, you should subtract these types of calls from the number of callers transferred, but keep them in the total number of callers. Because the IVR system performed as requested, these calls should count toward IVR utilization, not against it. So the updated formula will now look like this:

Transfer Rate＝((Total Transfers-Business Initiated Transfers))/(Total Calls) x 100
Utilization Rate＝100-Transfer Rate

How to determine if your utilization numbers are correct
Unless you have very detailed call flow reports that show exactly where every caller either hangs up or is transferred, it is difficult to determine whether the utilization rate your IT department or IVR system vendor is providing is correct. Request from your IVR provider or internal IT shop a detailed call flow report showing all prompts/menus/steps where callers are hanging up or being transferred.

These reports should be very detailed and precise. Don't be fooled by cumulative totals, such as 100 callers tried to transfer funds in the IVR; 50 succeeded, 25 hung up, and 25 were transferred. You need very detailed reports of where the call failed. Was it date selection, amount selection, or from/to selection? If your IVR vendor is not showing you this level of detail, it's time to switch IVR providers. You're not getting an honest utilization rate, which would enable you to increase utilization and your ROI.   **IT**

Donny Jackson is senior vice president of software development at USAN (www.usan.com).

The Social Media, TV Connection

Sixty-two percent of consumers use social media while watching TV on a weekly basis, an increase of 18 percentage points in one year, according to an Ericsson ConsumerLab's study. The study also indicates that 67 percent of people use tablets, smartphones or laptops for TV viewing, while 60 percent use on-demand services on a weekly basis. It says also that 25 percent of consumers use social media to discuss what they are watching while they are watching it. All of the above, according to Ericsson, points to the fact that social TV is becoming a mass-market phenomenon.

TWC Selling Based on Netflix

GigaOM reports that a recent Time Warner Cable mailer has been sent to Internet-only subscribers suggesting they up-grade their broadband for a better Netflix experience. And the cableco has offered one year of free TV as part of the deal, the story says. Noting the Netflix isn't included in the subscrip-tion package, GigaOM goes on to say "not too long ago, cable companies viewed TV services as their main money maker and broadband as an added service. The Time Warner Cable offer doesn't just turn this model on its head, it also puts the focus squarely on Netflix as one of the main reasons people would want fast Internet access."

Hulu Plus Comes to PlayStation 3

Hulu Plus in September rolled out on the PlayStation 3. The service is available for $7.99 a month. "We've imple-mented a tray-style format that allows you to scroll through recommendations based on your viewing history, or check out popular shows and movies, the top 100 clips on Hulu Plus, movie trailers and more," according to the Hulu blog. "We've also included a Shows You Watch feature that highlights the content you regularly enjoy, and lets you jump straight to the latest episode."

TV Everywhere Gains Steam

TV Everywhere saw a tenfold spike in user adoption in the first half of the year, according to a recent story by TMCnet contributor Tara Seals. Field usage data based on Adobe Pass technology for TV Everywhere authentication shows an increase of ten times previous TV Everywhere use in the United States in the first half of 2012, according to the piece. "The uptick was led by online and mobile viewing of hot-ticket sports events like NCAA March Madness, UEFA Euro 2012 soccer and the NBA playoffs, but Disney and the Turner Broadcasting were successful in their multiplatform bids as well," Seals writes. The 2012 London Olympics was also a big driver for TV Everywhere; in fact, Verizon Communications authenticated second-screen content and on-demand video app usage by FiOS subscribers more than 3.5 million times during the 16 days of Olympic coverage. "The engagement levels were incredible. It's an unmistakable sign that viewers want to engage with the right enhanced interactive TV content," says Peter Low, CEO at Ensequence, which provided the engine behind the content for Verizon's mobile app.

Oracle Addresses Cablecos

Cable TV outfits are moving to expand beyond IPTV to offer new things like TV Everywhere, according to Oracle Commu-nications. But the company says "cable providers face many challenges as they transition to IPTV services – many have older, siloed infrastructures that do not easily support new service implementations. To that end, many cable service providers are looking to transform their operational sup-port systems and business support systems, often focusing initially on centralizing customer order management capabili-ties to enable the rapid offer and delivery of new, bundled services and, ultimately, eliminate operational silos." Leonard Sheahan, senior director of product marketing at Oracle, says his company is working to help cablecos update their internal infrastructure to give them the agility to transform commercial offers over time as they see fit.

What's Good for Online Video is Good for America

Just how good is Internet video for the country? When it's tied to advertising, the answer is more than you might think, says Bob Wallace, a TMCnet contributor and orga-nizer of the Video World Conference, which was co-located with ITEXPO Austin last month in Texas. Wallace notes that research from the Harvard Business School claims that the entire ad-supported ecosystem of the Internet contributed $530 billion and about 2 million U.S. jobs to the economy last year. The work was commissioned by the Interactive Advertising Bureau, a global non-profit representing over 500 media and technology companies. The IAB claims its members collectively sell 86 percent of all online advertis-ing in the U.S. The Harvard Business School research notes that much of the growth occurred among small busi-nesses, in reference to the job creation figure. That number doubled from the previous year.

FCC Prepares Rules for New TV Airwaves Auction

The Federal Communications Commission recently proposed new rules for selling TV airwaves for use by smartphones, as reported by TMCnet contributor Ashok Bindra. The move is ex-pected to raise $15 billion and help meet soaring demand for wireless computing. FCC Chairman Julius Genachowski, said, "This is a big deal." He added, "The auctions, expected to take place in 2014, will free airwaves, raise very substantial rev-enue and help provide funds for a nationwide radio network for emergency workers such as police and firefighters."

Talking Customer Experience with Radialpoint

INTERNET TELEPHONY talks with Jordan Socran, vice president of business development-North America at Radialpoint, about enhancing the customer experience in the world of broadband access and beyond.

How and when was your company established?

Socran: The company was originally founded in 1997 as Zero-Knowledge Systems Inc., a provider of managed Internet services to many of the world's largest broadband providers. In 2005, its name changed to Radialpoint to accurately reflect its unique vision for managing and delivering Internet services. Today, Radialpoint exclusively focuses on delivering premium support technology that allows large consumer technology brands to monetize the connected home. Company founders are Hammie Hill, along with his sons Austin Hill and Hamnett Hill, president and CEO at Radialpoint.

What does your company sell to whom today?

Socran: Radialpoint is a white-label premium technology support solutions company that allows the world's leading OEMs, CE retailers, carriers, independent software vendors and wireless providers to realize their share of the growing revenue potential driven by consumer technology support needs in the connected digital home. Radialpoint enables remotely-delivered out of scope premium support programs and helps to provide a greater level of customer support by addressing specific needs within each industry:

More often than not, service providers and specifically telecom carriers are tasked with servicing customers on devices that are out of scope, because they are connected to the service provider's core access services. While they could easily take a not my problem approach, customer experience is a critical component of the service provider industry, often the greatest competitive differentiator. For example, if your Linksys wireless router is failing, you don't call Linksys, you call your Internet provider.

Often, consumer electronics retailers provide a one-and-done customer service that doesn't go far beyond the purchase transaction. As the volume of connected devices increases, however, it's important to help consumers maximize the benefits of these products. This is an opportunity for the retailer to deepen these consumer relationships to foster potential future purchases. Retailers can benefit from offering premium technology support to their customers to ensure that devices continue working properly and ultimately encourage repeat customers.

Much like retailers, OEMs see the value in premium technology support that service customers beyond the point of purchase. For example, think of Apple loyalists. Part of their loyalty comes from the Apple customer experience. Apple provides the Genius

bar and exceptional device support. In return, customers are loyal and tend to own multiple Apple devices. According to a study by NPD Group, nine out of every 10 Apple owners are somewhat or much more likely to make another Apple purchase following their tech support experience.

With more and more manufacturers offering multiple products, and more customers owning multiple connected devices, OEMs need to support customers across their devices to increase loyalty and influence purchase behavior.

Across all three markets, Radialpoint's technology-based offering generates revenue and deepens customer relationships by simplifying technology and solving end user frustrations. Radialpoint brings a turnkey solution to market that enables these large technology brands to deliver end-to-end, premium technology support programs. Some of the world's most successful premium technology support programs offered by OEMs, retailers, and wireless providers are powered by Radialpoint, generating nearly $1 billion in revenues to date and growing. Customers include, Virgin Media, Rogers, Windstream, and a leading multinational OEM.

There's a lot of talk in the customer experience arena today about analytics and big data. Radialpoint says integration is a key aspect to that. Of course, the need to integrate data from multiple sources and then analyze it to make the best use of it is well understood in the industry, I think. However, just how to do that and to do it cost effectively is the challenge. How does Radialpoint address that?

Socran: Valuable data is available within every organization. But, companies need to know how to take full advantage of it to truly offer a rich customer support experience. By integrating all of this information (subscription billing, remote service management, customer lifecycle management, etc.), it eliminates steps for impatient customers and ultimately results in a positive and cost-effective experience, by dramatically reducing call times.

Radialpoint helps to solve problems and deliver customer resolutions by gathering analytics from interactions throughout the different phases of the customer lifecycle. For example, when a customer calls customer support regarding an issue, Radialpoint can recognize that this is a reoccurring problem and easily resolve it, which ultimately gives time back to the customer. This is intelligent routing based on the customer's profile, providing automated problem resolution so the customer doesn't have to wait around while being serviced. Ultimately, this benefits both the consumer – who is able to experience a quick resolution call – and

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Jordan Socran of Radialpoint

Radialpoint's client, who is able to answer calls in less time and better utilize their staff.

By leveraging big data, and solutions like Radialpoint, companies are gaining a more holistic view of their customers, to enhance the customer experience and provide a more efficient use of both costs and time. With data, companies can gain a better understanding of customer interactions and provide an improved customer experience. Also, access to data allows service agents to look for cross-sell and up-sell opportunities that meet that customer's specific technology and connected home needs, while also helping to generate new revenue streams. For example, if a customer keeps calling [his or her] PC OEM about a laptop issue and data shows this laptop was purchased five years ago and running on an outdated OS system, it could be a good time to tell the consumer about a deal on laptops.

Are there different schools of thought on data analytics?

Socran: I believe there are. Making sense of big data is a combination of organizations having the tools, skills and more importantly, the mindset to see the opportunities with the effective use of vast amounts of data. Traditional business intelligence tools and concepts are often limited to the analysis of structured data, mostly internal or transactional, and often restricting the amount and type of analysis that can be performed. With big data analytics, businesses are able to analyze the transaction and interaction of their customers and recognize the importance of the entire customer engagement cycle.

According to IBM, 90 percent of the data in the world today has been created in the last two years alone; the data comes from everywhere, from transactions, internal databases to social media sites, pictures and videos. Businesses are now evolving their thinking and approach around data analytics to recognize

that big data and analytics is not only about the volume but also about the opportunity to find key insights from leveraging different data types to make their business more agile.

What organizations are the pioneers in leveraging big data and analytics today? How specifically are they using that data to their advantage?

Socran: Retailers are using big data and analytics today to drive costs out of their business and revenue into their business. They are massive consumers of data; retailers use data to analyze the in-store and online traffic, consumers' shopping cart, reviews and the most sophisticated retailers look at both their overall transaction and interaction with the business. I see the pioneers being Amazon and other similar companies who have let software-led resources increase sales. For example, when a customer buys an LED television, that customer might need a TV cleaner to go along with it, so Amazon (and like companies) can provide recommendations. There is no human involved in that interaction, which means no labor costs, yet the customer just increased the purchase by an average of $6 to $10.

Of course, the retail industry is finding significant ways to leverage big data, but the advertising industry, dominated by Google, is probably one of the biggest consumers of data and using it to generate revenue.

What other ways can organizations leverage big data and analytics to save money, drive revenues, and/or win customers?

Socran: Big data and analytics methods are valuable tools to be leveraged throughout many departments of an organization. Marketers and engineers are just a few within an organization that derive value from leveraging big data and analytics to be more effective.

For example, if product engineers for a PC OEM can understand a specific customer pain-point and affiliated data that is captured within the Radialpoint system, they may be able to come up with a solution in the next version of the product.

For marketers, they can access the Radialpoint system to determine which upsell and cross-sell ideas are resonating with customers and develop promotions on the products and services that will drive the bottom line. By capturing technical support data and sharing it within the organization, OEMs, retailers and carriers can become more strategic and get-ahead of their customer's needs.

Google Big Query and Amazon Web Services are major competing solutions offered to businesses of all sizes that require data and analytics. Both companies are charging businesses for the service but without the need for investments of additional hardware or software.

What's next for big data and analytics?

Socran: Big data is going to leave its imprint on organizations in a big way, and I predict that the premium technical support experience will continue to improve as the capture and use of data continues to evolve.

At the end of the day, maintaining customer relationships can make or break a business. Being able to apply big data tools and analytics to technical support and then across the organization, will be a great differentiator. The organizations that will win are those that improve customer satisfaction and build loyalty by providing a deeper understanding of the customer experience.   **IT**

Small Business Looks to The Cloud

Today's small businesses are looking to the cloud more than ever before to achieve goals and level the competitive playing field. According to recent research compiled by PGi from Telework Coalition, Fonality, Aberdeen, Microsoft, IDC, CSC, Gartner, MobiThinking, iPass and Channel Insiders, the number of the world's smallest companies using at least one paid cloud service will triple in the next three years. Today the cloud represents 68 percent of all SMB IT spending. Additionally, 42 percent of SMBs have deployed mobile technology with 33 percent of them planning to purchase even more.

Business owners also are embracing the fact that good ideas don't always happen between office walls. With 30 percent of the global workforce telecommuting, SMBs are seeing real benefits to utilizing today's wireless technology for remote worker productivity. According to PGi, businesses that incorporate remote workers see employee productivity rise by 22 percent. And since business isn't a 9 to 5 endeavor anymore, with bosses having always-on expectations of employees, 71 percent of SMBs require technology that enables their staff members to work anywhere at any time. This is contributing to the blurring of personal vs. professional lines in today's business world. The days of carrying both a personal and business device for small business owners are nearing an end. Per the research, 71 percent of SMB workers use personal devices for business purposes.

"The information gathered is very interesting, showing us that small businesses are approaching employee and growth management with more tech savvy than ever before. With the freedom of mobility and a growing adoption of cloud-based collaboration services, SMBs are now powered for more growth and innovation than ever in history, and it's very exciting to see," says Boland T. Jones, CEO, PGi.   **IT**

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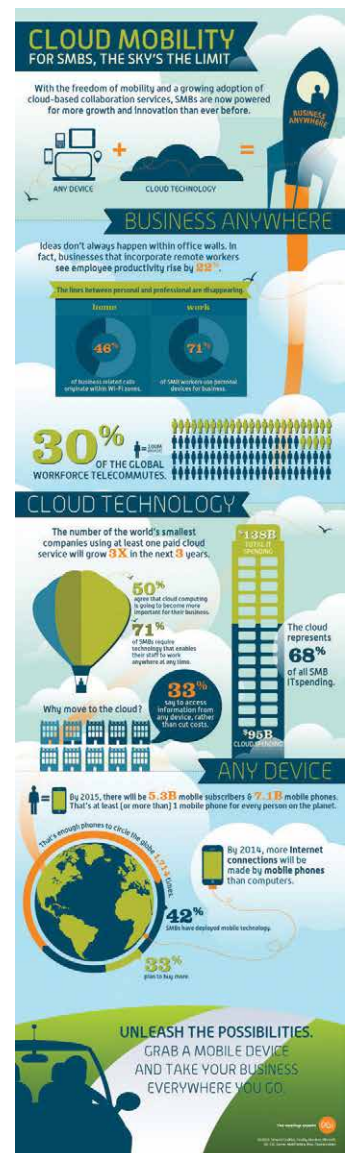
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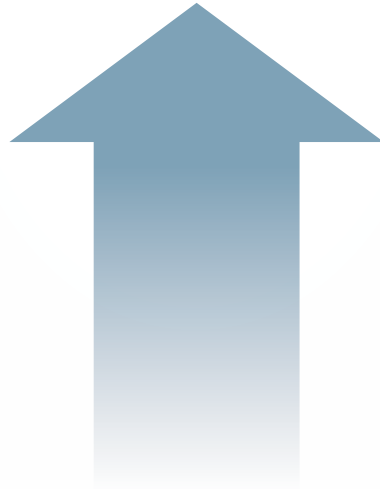
The Enterprise Cloud Adoption Framework

In the silly season of the late '90s, while sock puppets and trading exchanges dominated the headlines, a quiet revolution transformed our global supply chains. We now remember it as an era of dubious distinction that embodies the irrational exuberance of the time. But it did teach us a great deal about agile value chains, and it now informs our most successful business models.

The rise of a global marketplace on the web forced us to think differently about sourcing, manufacturing and delivery. It made us reconcile the economics of profit-seeking business models with practices that would support rapid fulfillment of diverse global demand.

At the heart of this transformation was standardization – normalizing parts, process and policies to drive economies of scale, enable automation, and simplify fulfillment and aftermarket support.

The same dynamic is playing out in today's data centers. The variable economics and instant gratification of the cloud are forcing enterprise IT and managed service providers to transform their supply chains and fulfillment processes to accommodate growing on-demand expectations.

For all the discussion, debate and commentary on the cloud transformation, there has been relatively little analysis of the role of standardization. The truth is that standardization is the primary driver for all of the benefits that flow from cloud computing.

It's this premise that inspired the Enterprise Cloud Adoption Framework, the first adoption model to look at the cloud journey through the crucial lens of standardization.

This framework helps guide the progressive standardization of compute, network and storage infrastructure and the operating system and middleware software platforms that enable applications. Ultimately, the goal is to help drive IT providers toward delivery models that are automated, agile and abstracted – where the focus is on applications, not the underlying muck.

Standardization forces tradeoffs between flexibility and control. Unstandardized environments are the very definition of flexibility – at the sacrifice of speed, economy and quality. Fully standardized environments deliver all the goodness of speed and economy, but place rigid constraints on customer requirements.

That's why it's a transformation that must be made in a progressive, stepwise fashion.

And that's the purpose of the Enterprise Cloud Adoption Framework: to help cloud builders navigate infrastructure standardization decisions and tradeoffs in environments involving diverse infrastructure, in which infrastructure is fragmented and non-standard, which fulfills the varied requirements of internal customers, but sacrifices speed, control and cost efficiency; standard infrastructure in which infrastructure resources are pooled across departments and user communities to improve utilization and economies of scale and in elastic infrastructure, in which infrastructure

The reality is that enterprise application portfolios are full of kudzu, leveraging every nook and cranny of their environments.

is pooled and further standardized as a set of T-shirt-sized options (e.g., small, medium and large) with corresponding pricing, service levels, etc.

Likewise, it guides decisions and tradeoffs for standardizing application platforms where custom platforms are assembled as one-offs to meet the specific requirements of complex applications; where platforms are consolidated down to a finite number of well-defined options to enable end user flexibility, while also providing a basis for automation; and where a single, unified platform becomes the only choice for applications, providing a high degree of simplicity, speed and cost effectiveness at the expense of flexibility.

You may recognize this last stage as the very definition of platform as a service, a highly abstracted developer interface that turns IT into the black box it was always meant to be.

It's an inspiring idea, but it's also an approach that puts a straightjacket on developers, treating applications like bonsai that were born to fit a precise container. The reality is that enterprise application portfolios are full of kudzu, leveraging every nook and cranny of their environments. That's why most companies aren't prepared to take advantage of the full promise of PaaS.
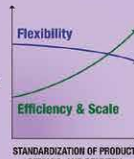
Turning IT into a black box is indeed the inspiration and aspiration for next-generation IT delivery models. But as the Enterprise Cloud Adoption Framework illustrates, you can't get there overnight. It's a transformation that unfolds in the fullness of time through a disciplined, stepwise journey over progressive stages of infrastructure and platform standardization. The good news is that each stage yields cost and agility benefits that get you ever closer to truly on-demand IT. **IT**
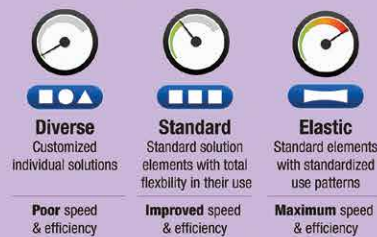
Brett Adam is CTO at rPath (www.rPath.com).

New Mexico Utility Rolls out Smart Grid Infrastructure

Drought is a major concern in the American Southwest, especially in the summer months. When it comes to water conservation, The Albuquerque Bernalillo County Water Utility Authority saw the importance of deploying a smart grid infrastructure, while also taking a customer education approach.

The water authority is the largest in New Mexico, and is a political subdivision of the State of New Mexico that administers the water and wastewater utility for all of Albuquerque and Bernalillo County. It serves a population of more than 634,000 people via approximately 203,000 water meters. The utility faced a series of challenges that led up to its deployment of smart grid infrastructure and a customer engagement strategy.

Residents were using 205 gallons of water per capita in 2001, causing an impact on an area prone to drought. The water utility also faced business-process challenges. The water authority read 94 percent of its water meters manually – meaning the authority faced data collection costs, and customers' bills were not as accurate. Furthermore, the utility's customer-service staff needed the exact data to serve customers better, and utility administrators needed access to detailed reports that would help them go forward in key planning decisions.

The water authority is completing its smart grid infrastructure, and has chosen MeterSense and CustomerConnect – Harris Utilities' meter data management and customer engagement solutions.

The water authority chose MeterSense to establish its MDM solution. Meter-Sense is a scalable, configurable solution that quickly manages and intelligently interprets growing volumes of critical smart meter data. Designed on an open

framework, MeterSense integrates with any customer information system and provides customer engagement and analytics tools to maximize smart grid investments, tying them into the utility with configurable, intelligent workflows.

CustomerConnect is an engagement solution that transforms the way utilities interact with their customers. Designed in close collaboration with a range of consumer groups, the solution will give customers direct, web-based access to account information and insight into resource use.

When fully implemented, MeterSense will provide superior analytics to rapidly interpret and capitalize on smart meter data. Since smart meter data is loaded with business intelligence, MeterSense analytics will swiftly decode meter data, give utility decision-makers insight into individual system and overall utility performance, inform precise forecasting and enrich strategic planning.

Katherine Yuhas, the water authority's water conservation officer, says that using MeterSense "means we can drive down unaccounted consumption – from system leaks, for example – and further support time-of-day watering restrictions."

CustomerConnect will also allow the water authority's customers to view their consumption patterns on a near real-time basis; compare their usage and rates; and customize, schedule and receive fully customizable usage reports that are delivered via e-mail, text or telephone anytime they want them. They also can change their basic account data, create personal goals and budgets with reminders and updates, and download targeted educational material to learn about and enroll in resource-conservation programs.

Customers will be able to access even the most granular levels of account data.

Consumption history will be retrieved and displayed on a near real-time basis to give customers the most accurate picture possible of their usage patterns. Data will be displayed in graphic or tabular formats and is fully customizable by the consumer to ensure perfect clarity. They will be free to opt in to demand management programs and receive personalized reports on the money they are saving day-to-day. And they will have absolute freedom to configure and control their resource consumption choices.

Norm Daigle, executive vice president of Harris Utilities-SmartWorks, says this implementation will prove that any utility – water, electricity or gas – can realize significant benefits from robust, integrated smart grid solutions.

"The water authority clearly understands its role as a steward of the environment," he says. "Together, MeterSense and CustomerConnect are enabling the utility to build on great successes and protect a critical natural resource."

The water authority will introduce the hardware over the next five years, and plans to implement MeterSense and CustomerConnect by the fourth quarter of 2012. **IT**

Kristy Strauss is a communications specialist at Harris Utilities (www1.harriscomputer.com).

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Smart Grid Means Business

Evolving Utility Needs Match IP Network Offerings

With the power industry set to spend substantial amounts of money to modernize the grid over coming decades, a parallel opportunity is arising for telcos to expand their involvement in smarter grids.

According to the IMS Research report The Americas Market for Smart Grid Networking, 2012 released in August 2012, North American utility spending on smart grid in the near term will focus more on distribution automation as the power industry largely completes its work on advanced metering infrastructure. But both areas are ripe for utility-network provider collaboration.

As electric utilities add sensors and controls to the grid and seek two-way communications with residential and commercial/industrial customers, they increasingly will come to rely on telcos and public networks for their communication needs. Utilities have neither the capital nor the expertise to achieve the sorts of network capabilities that telcos provide today.

Therein lies a major commercial opportunity for network providers, as long as they understand the nuances of electric utility needs and can address entrenched utility cautiousness regarding such a partnership. The two industries historically have had vastly different drivers and objectives that only recently have achieved a degree of overlap that opens the door to mutual cooperation and benefits.

The past decade or so has revealed successes and failures in what has been, at times, an uneasy relationship. First, a thumbnail sketch of the roots of the relationship.

A Brief History
The Public Utility Holding Company Act of 1935 gave power utilities the right to build their own, dedicated networks to provide reliability and security in an era when telcos did not have the technology or the business case to do so. Still, in the mid-20th century, utilities might lease copper lines from local telcos where it was cost effective.

Flash forward to the 1990s. Attempts at collaboration were constrained because the two industries had, and still have, different drivers and objectives. Utilities traditionally invest in infrastructure expecting decades of useful life. Telcos and their technology have evolved on much shorter timeframes based

on different market drivers. And, of concern to utilities wary of stranded assets, telcos abandon older technologies as newer ones are developed.

For instance, telcos marketed control channels on cell towers – this was CDPD, or cellular digital packet data – to utilities for non-critical SCADA (supervisory control and data acquisition) traffic. That market became saturated, service levels dropped, the telcos moved on technologically, and the service was discontinued. Utilities were left with the dreaded stranded assets and efforts wasted. Their entrenched cautiousness of telco solutions only grew.

In another instance, placing communications equipment in high-voltage environments proved impractical. In substations built for voltage step-down and distribution, the physics involved wreak havoc with communications equipment and signals. The network provider might require that it own the communication-isolation equipment and thus needed access to the substation. The utility might balk at that requirement for obvious reasons. While this arrangement could be made to work, the logistical difficulties did not encourage such collaborations to expand.

By the turn of the 21st century, certain collaborations made technical and business sense. Utilities began using virtual private networks on public networks for the often point-to-point backhaul of meter and other data. But the two parties had differing perspectives on service levels for their disparate business demands. For broader collaboration between the two industries, one major sticking point remained. Utilities require 24/7 reliability to deliver power to a broad array of stakeholders, and that means service from network providers measured in minutes and hours, not days. Telcos could not or would not guarantee service on that level.

The same held true for telcos' network ubiquity, bandwidth, speed and, above all, reliability. As we'll see, utilities have a variety of needs based on those metrics, but the driving fundamental of reliability – utilities call them performance guarantees, telcos call them quality of service agreements – remained a point of contention. When a businessperson encountered a glitch in downloading a file to a smartphone, the delay could be endured. But for grid operators a missed or latent control signal could not be tolerated. That's not

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just a grid reliability issue. On a power grid, a spooled or delayed control signal on a telco network could result in a line crew believing the operation command had failed, only to have the device then operate unexpectedly while the line crew was taking other actions to mitigate the presumed command failure.

Parallel Developments
What's changed between then and now?

The telcos' have built out pervasive IP-based networks to homes and businesses across the country, with improvements in bandwidth, speed, security and, again, reliability that in some cases surpass utility needs. These improvements have been driven largely by e-commerce and entertainment markets and the costs recovered through end users' monthly bills. Those improvements make the new networks' performance and cost very attractive to utilities, which do not have the capital or expertise to achieve a similar result.

Take reliability, for instance. A modern IP-based system doesn't rely on a single path. It's truly a network. With path diversity a signal can find its way through several different routes if conditions take out a portion of the network. That provides greater robustness and less dependency on a single pathway, which addresses utility concerns for the reliability of control signals.

So as utilities have moved into the smart grid era and installed an array of technologies that have a variety of requirements for reliability and security and, to a lesser extent, bandwidth and speed, the telcos have built networks that meet and even exceed those requirements. These parallel developments have put the two industries into a sweet spot for collaboration.

Opportunities for Collaboration
Today, the power industry's focus on advanced metering infrastructure and distribution automation includes numerous network communication needs that telcos' IP-based networks can provide. Both AMI and distribution automation provide operational efficiencies and, perhaps more importantly, both figure in utilities achieving mandated reliability targets. Investor-owned utilities report to regulators on reliability indices known collectively, in the vernacular, as SAIDI and her sisters – that's SAIDI (System Average Interruption Duration Index), SAIFI (System Average Interruption Frequency Index) and CAIDI (System Average Interruption Duration Index). Anything telcos can do to assist utilities in managing those critical indices will be welcomed.

The same goes for the cost-effectiveness of a third-party communication network. In the past, one of the biggest costs (up to 40 percent of such a project) and complications for distribution automation was building the communication system that reached all distribution assets. So the availability of a third-party network that can do so cost-effectively without major capital expense can represent the tipping point in a business case, creating an attractive return-on-investment.

A few specific needs include many functionalities associated with AMI – remote connect/disconnect signals to smart meters, price signals, outage notification and restoration, demand-side management or load-management systems – can use IP connectivity to reach end customers and haul response data back. Home area networks and intelligent appliances may take advantage of IP-based networks. Charging electric vehicles at home or at public charging stations can use IP-based networks for two-way data transfer.

Further, tying together all the controls and sensors and assets in an automated distribution system to extend control and visibility into the last mile will be aided and made cost-effective by IP-based networks.

Going Forward
To make those IP-based networks as attractive as possible to power utility customers, telcos should consider the utilities' traditional and evolving needs for reliability and service. Network providers should craft very definitive statements on quality of service. A utility has myriad needs for communications, some of them requiring extremely high reliability, others not as much. If telcos precisely define their offerings in terms of reliability and coverage, the utility can more easily determine which of its applications can be served by the network.

Coverage naturally impacts utility considerations as well. If a utility can identify large geographical areas that can be covered with certainty by one network technology, that's extremely useful. Conversely, if the utility has to mix and match technologies house by house or distribution pole by distribution pole, that becomes problematic. Particularly in a distribution automation system, the utility is likely to be the party that maintains the equipment on the pole, so for practical reasons it can't deal with a mix of different technologies. If a telco is unable to offer that homogeneity, if there isn't a good match between utility need and telco coverage, no amount of salesmanship is likely to bridge the gap.

Another factor for successful collaboration is the financial model. Much of early network billing was based on content; it was metered pricing. Utilities typically, especially in today's world, don't need fat pipes. They have a greater need for reliability. For example, in a distribution system, the amount of data sent from a distribution pole to a control center is less than a tweet. But that signal has to go through. It's an extremely high priority at an extremely low data through-rate. Telcos simply need to offer pricing structures that reflect the utilities' needs. **IT**

Sam Sciacca, CEO of SCS Consulting LLC, is an IEEE senior member and smart grid technical expert and has provided expertise in utility automation and utility telecommunications for more than 20 years.

What to Expect in the Next Generation of Virtual Assistants

Today, whether we're aware of it or not, we are using elements of Artificial Intelligence while on our mobile devices. Beta versions of artificial intelligence tools such as Siri and Google Now offer us recommendations, automatic notifications and schedule meetings we tell them to. But, what does the next version of AI look like for our daily lives? And what lies beyond these command-based and simpler notification services?

In short, it's expert advice and solutions from your very own virtual assistants.

The big thing for AI is a mission to make the Internet more intelligent. But this doesn't require only one single AI-integrated app, but millions of distributed, specialized, smart knowledge-driven solutions capable of working together.

While much of today's AI is about creating solutions for companies with large resources, the future of AI is probably highly distributed and without centralized control – building value for all who use it. In many ways, this means that the next generation of AI apps will really be about enabling a better life for people based on a a new generation of machine learning software and other AI technologies.

One of the great things about AI is its ability to handle more complexity. Add to this new functionality developments in natural language processing and image recognition. Such features will merge with other forms of AI services to create an interface that is simple enough to use for services only people could do before. Therefore, the next generation of virtual assistants will provide personalized and intelligent services based on complex systems and sets of data but in simple user-friendly interfaces for us to interact with.

Here are two virtual assistants you'll see emerge over the coming years.

Your personal shopper
M-commerce is the fastest growing part of commerce today. It's therefore no surprise that this industry has progressed the fastest thus far when it comes to using AI-integrated components to help shoppers in a number of ways. The next step will be a series of brand-driven personal shopping apps that can cater to exactly what you like and what fits your body measurements, style and taste. For example, by learning from what types of clothing and accessories you purchase, your assistant will know the basis of what you like. It can also learn intimate details from uploaded pictures of yourself which it can merge with the current lifestyle trends throughout your life and will be able to provide you with well-tailored and highly specific insights on your style –suggesting new fashion trends and ways to wear your new skirt, new hair trends and more.

Pushing this example further into deeper personalization, through new developments in image recognition, your personal shopper app will be able to provide you with the perfect make-up techniques and colors to accent your skin type and tone by accessing pictures that you have uploaded.

By Lars Hård
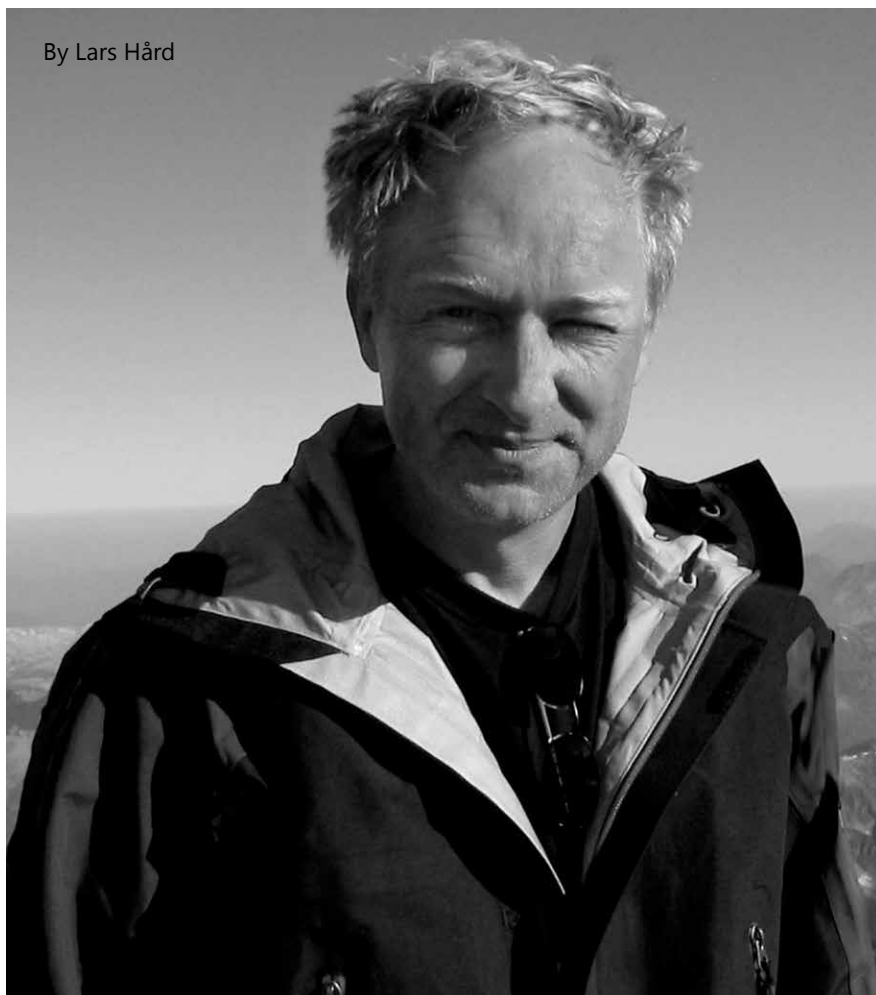
The possibilities are endless and certainly don't stop with apparel and style. We can apply this to shopping for larger more expensive and permanent purchases such as cars, pets and houses. These personal apps will have the ability to look at pictures of a realtor web site and identify information from the pictures that otherwise would not have been noticed.

Your personal secretary
In our always-on lifestyles, timing is everything. New hardware integrated with our virtual assistants will connect the dots more often for us when scheduling our daily tasks, managing our monthly calendar dates, and providing insights into annual or one-time reminders for things such as bill payments.

Our virtual assistants will have access not only to our calendars, but also the context and atmosphere around us in real time. Google Glasses, due to enter the market by year's end, will show first stage capabilities like checking the weather forecast and suggest a selection of nearby stores that sell umbrellas if it is about to rain later in the day.

Mobile devices are growing capabilities of measuring ambient data: temperature, location, user movements, etc., in addition to analyzing digital content. All of these factors will be embedded into the calculations and schedule our personal secretaries provide for us – sharing suggested revisions or cancellations due to impending weather, syncing a dinner date with another after-dinner-drinks-date with mutual friends at nearby locations and beyond.

Virtual assistants will affect both our online and offline life. Today's simpler apps are showing glimpses of what is to come, but the really interesting bits have yet to come. **IT**

Lars Hård is founder and CTO of Expertmaker (www.expertmaker.com).

John Legere Takes Over at T-Mobile
T-Mobile USA has a new CEO. It was announced this fall that John Legere would be replacing Philipp Humm as CEO of the organization. Legere previously served as head of Global Crossing; he also has worked for AT&T and Dell. "John has a very tough job ahead of him," tech industry analyst Jeff Kagan. "T-Mobile is bleeding customers. That's job number one. Stop the loss of customers." Kagan adds that T-Mobile is also challenged due to that fact that it is one of the big four wireless carriers that doesn't offer the iPhone and that while both AT&T and Verizon offer 4G LTE in multiple cities, T-Mobile does not.

Apple Introduces iPhone 5
The iPhone 5 and iOS 6 became generally available in September. As you may have heard, the device is made entirely of glass and aluminum, and is the thinnest and lightest phone Apple has ever made –18 percent thinner and 20 percent lighter than the iPhone 4S. It includes a four-inch display screen; adds HSPA+, DC-HSDPA and LTE support; and has a camera featuring panorama mode. The 16GB version of iPhone 5 sells for $199, the 32GB is priced at $299, and the 64GB retails for $399.

ABI Names Cisco Carrier Wi-Fi Leader
In its latest assessment of carrier Wi-Fi equipment vendors, ABI Research identifies Cisco as the overall winner. ABI Research defines carrier Wi-Fi equipment as gear that mobile or fixed line service providers integrate into their core networks with the intention of offering the subscriber a seamless user experience and offloading a portion of the user data traffic based on the service provider's policies. Other top-scoring carrier Wi-Fi vendors, according to ABI Research, include Alcatel-Lucent, Ericsson and Ruckus Wireless.

Clearlake Buys MDM Organization
Clearlake Capital Group has acquired most of the assets of mobile device management oufit Mformation Technologies Inc. for an undisclosed sum. The acquired will remain in Edison, N.J., with most of the same management team. "With more than 500 million devices under management, over 50 leading service provider and enterprise MSP customers, and growing demand for advanced mobile device management solutions from mobile operators and large organizations, we believe Mformation has a significant and growing market opportunity," says Todd DeLaughter, Mformation CEO. "We are excited to partner with the Clearlake team, who shares our vision for the company's potential and brings financial and operational expertise to help us execute on our plan for continued growth."

Interop Wins Revol Business
Revol Wireless has tapped Interop to provide a hosted over-the-air device provisioning platform with integrated interactive voice response system. The Cleveland-based wireless operator serves customers in the Midwest. "Our OTA-IVR solution enables Revol to reduce costs associated with manual activations and provisioning and more efficiently manage its pool of CDMA devices, which has become more challenging as new, feature-rich handsets have been introduced," says Fred Farrell, vice president of North American sales at Interop Technologies.

Telefónica Taps HP
The world's third-largest communications service provider, Telefónica S.A., is using HP Customer Experience Assurance in an effort to improve the mobile broadband experience of its customers in all its properties across the Americas and Europe. The deployment is part of an effort, launched last year by the CSP, "to resolve network- and service-quality problems more quickly and effectively," according to the companies. "By giving Telefónica deep, real-time insight into its customers, HP CEA is enabling us to deliver a much higher quality of experience," says Enrique Blanco, global chief technology officer at Telefónica.

By Paula Bernier

INTERNET TELEPHONY Congratulates Winners of the UC Excellence Awards

With the rise and snowballing expansion of mobile networks and applications, communications, connectivity and collaboration seem to be everywhere.

Unified communications solutions that intelligently bring together real-time and recorded voice, IM, presence, audio and video conferencing, and other capabilities continue to improve and become available to a broader cross section of the populace.

Here are some of the best and brightest offering on the UC solutions front. Congratulations to this year's batch of UC Excellence Award winners!   **IT**

WINNERS

Company	Product	Company	Product
ADTRAN Inc.	NetVanta Unified Communications Solution Suite with Notification Server	Nectar Services Corp.	Nectar Converged Management Platform (CMP)
Alteva	Alteva's Hosted VoIP & UC Solution	OPNET Technologies Inc.	Unified Communications Xpert
Altitude Software	Altitude uCI	Panasonic System Communications Company of North America	Panasonic Communications Assistant Series
AudioCodes	AudioCodes Mediant 1000 E-SBC	PanTerra Networks	WorldSmart
Denwa Technology Corp.	Denwa Unified Communication Platform	Siemens Enterprise Communications	OpenScape UC Suite v7
Digium	Switchvox	Sonus	Sonus SBC 5100 Session Border Controller
IceWarp Inc.	IceWarp Server Version 11	Star2Star Communications	Star2Star Business Internet Communications System
IPitomy Communications	IPitomy IP PBX with Q manager	Virtual PBX	Virtual PBX Complete
NEC Corporation of America	NEC UC Desktop Suite UNIVERGE 3C UCE Collaboration	Windstream Corp.	Windstream Managed UC Services

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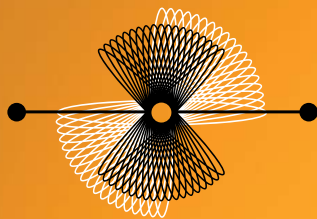
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By Erik Linask

Innovation on Display: ITEXPO Austin

Having just wrapped up another successful ITEXPO in Austin (in 20-degree cooler weather than last year), I have the pleasure of again reflecting upon the many exciting happenings from the week. Where to start?

How about the keynotes, which, as heard though the grapevine on many occasions, were an impressive, yet cohesive collection of industry thought leaders, each considering how customer expectations and customer experience are shaping the market. Sonus CEO Ray Dolan, Siemens Enterprise CMO Chris Hummel, and ShoreTel CEO Peter Blackmore were even more closely aligned in their conviction that these factors have driven unified communications to an inflection point, where UC is no longer a nice-to-have addition to your business communications capabilities, but a must-have in an age of accelerating communications.

One of the most exciting new elements was the M2M Evolution Battle of the Platforms, which featured demos from a number of innovative vendors looking to capitalize on the automation movement. The overall winner was Digi International, which has embedded its software with most of the sensor processor companies. "All of the platforms are indicative of the way the M2M industry is growing and matching to specific needs," explained Crossfire Media's Carl Ford. "Many of the winners referenced partnerships with other companies, and what everyone had in common was a commitment to supporting their customers' needs." (I should point out a great article by Tony Rizzo, who spoke with ThingWorx, one of the companies that has partnered with Digi.

Speaking of winners, one of my favorite activities during ITEXPO is the collaboration among TMC's editorial team around Best of Show candidates. As always, the competition is strong, with vendor after vendor making a strong case for its products. This year in Austin was no different, with the focus (see my comments on the keynotes above) being an enhanced and more efficient customer experience. I'm please to recognize our latest group of ITEXPO Best of Show winners, and look forward to yet another evening of exciting debate with our team in Miami.

- Best Enterprise Solution: ShoreTel's 13 Unified Communications and Sonus' Harmony Session Manager
- Best Service Provider Solution: Commetrex Corporation's Smart FoIP and UNSi's Same IP Failover (SIF)
- Best SMB Solution: AVer Information's HVC310 Video Conferencing and Fonality's Web Client
- Best Cloud Solution: DoubleHorn Communications' Integrated Applications and Processes Platform (iAPP) and Nuvio's NuvioIQ
- Best Mobile/Wireless Solution: Bottom Line Solutions' Mobility Marketplace and Matrix ComSec's SETU VGFX

- Best Contact Center Solution: HoldFree Networks' Q-Free
- Best Development Tool: Evangelyze Communications' SmartSuite UC Application Platform and Inventive Labs' Voice Elements Platform
- Most Innovative Solution: Conexiant's MultiAlert E911 and Vitelity's MyScribbit
- Best On-site Launch: AudioCodes' 420HD IP Phone for Microsoft Lync and Entreda's Unify

I want to focus for a moment on one winner, in particular, which I believe is on to something big.

We've all seen the success of online shopping – nearly every research firm has offered predictions as to how rapidly the e-commerce market will grow in the next three or four years. EMarketer, for instance, says that, by 2015, 90 percent of consumers will be doing some portion of their shopping online. Already today, two of my five neighbors do their grocery shopping online. The drivers, of course, are that online shopping is faster, easier, more efficient, provides access to more products, allows for easier price and product comparisons (including between different retailers), and can often be more cost effective.

So why shouldn't IT departments have an easy online shopping experience for their corporate technology needs?

DoubleHorn Communications believes they should, which is what it is looking to bring to the market with its iAPP cloud services marketplace, which currently boasts Rackspace, Amazon Web Services, and Acme Packet, among others. The idea is that businesses should have easy access to communications services, allowing them to quickly adapt to changing needs, without having to go through lengthy acquisition processes. The idea, according to CEO Tab Schadt, is to ensure businesses have access to the best solutions with proven interoperability – he says a key requirement of inclusion will be proven interop with other vendors.

By the end of the year, Schadt says, he expects v2 to be released, which will include a Service Sherpa that uses a set of sophisticated algorithms to determine what products or components businesses will need based on the criteria they enter.

The idea that business communications can be purchased and provisioned as easily as you can buy a new iPad has the potential to disrupt the sales models for many communications vendors, especially once the services element is added to the equation.

I look forward to seeing many more great new products and soutions in Miami, Jan. 29-Feb. 1, 2013. **IT**

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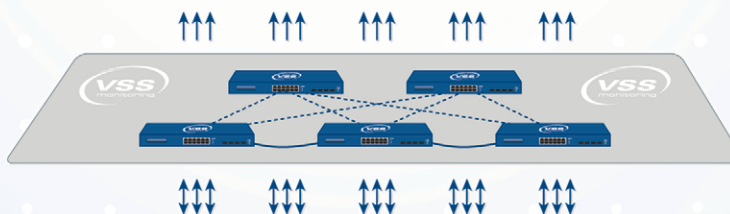
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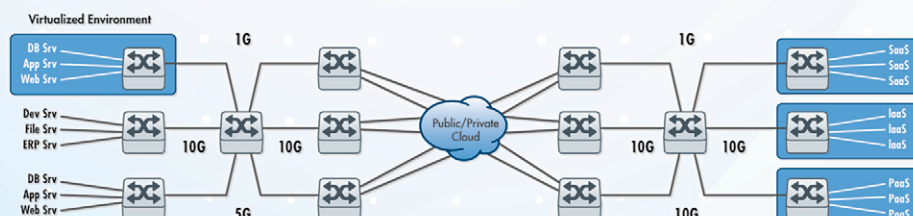
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