

SPECIAL EDITION FROM PTC'10 IN HAWAII

COMING SOON: 1,000,000,000,000,000,000 bytes

PERFECT STORMS: Skype, Arbor look into crystal balls

IN THIS ISSUE

**More NTIA stimulus,
Arcstar into China, Tata,
Switch & Data + more**

COMMSDAY INTERNATIONAL

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The telecom capacity industry's daily

Cloud to create 'coopetition' for IT services, telcos

Burgeoning business demand for cloud-based services will force greater alliances between IT services companies and telcos, according to a panel at PTC '10.

Discussing the future of apps in the cloud, IBM enterprise initiatives VP Mike Hill and Salesforce.com director platform research Peter Coffee said the line between competing and cooperating was becoming blurred, with the new buzzword of PTC '10 emerging as 'coopetition'.

Hill said that IBM and telcos had clashed in the enterprise market, but a new relationship was now emerging. "The only place we tend to have some level of friction with service providers is when you're up in to the largest organisations," he said. "Quite frankly, when we get together on those large organisations it's pretty clear we have a different set of core competencies... although the service providers will often say 'you're one of our largest competitors' I never see them that way because I'm developing a whole different set of competencies in our business than they are."

"We see service providers as a huge platform opportunity for us here – because we're going to take the platforms that we build in IBM to deliver these services, and we're going to pitch and sell it to service providers so they have the opportunity to white label services from us; or even white label to start with so they don't have to invest capital up front but then as it starts to go carriers like, oftentimes, to run their own services," he said. "We see it as a highly synergistic play."

Coffee added that Salesforce.com had already benefitted from a working partnership with telcos which proved to be a 'win-win'. "We have our services being re-sold by telecom providers who want to take advantage of the fact they already have more than their foot in the door, they're already completely inside the door as a small business service-suite provider," he said. "For example British Telecom packages and sells our CRM application as a service as part of BT's small enterprise suite, and there's absolutely no reason why we wouldn't want to foster that because that means their skills, their knowledge of the local marketplace, local business customs, local regulations, becomes a leveraging factor for us to do what we do, which is to provide enterprise functionality, and then they make it relevant to the local market."

"Telecoms providers have tremendous opportunity there to exploit – in a good way – their knowledge of the local market," Coffee said.

Another advantage of cloud based apps, according to Coffee, is that market failures tended to be quick and painless. "You won't be stepping into a marketplace over a very long period of time, delayed by capital budgeting, fearful of the possibility of winding up paying for something that doesn't work out – people will do ten things now if only one is likely to succeed. Because the cost of failure has now become insignificant."

Luke Coleman

From zettabytes to yottabytes: future bandwidths

Global IP traffic will be measured in zettabytes and then yottabytes in coming decades, according to Cisco global policy and government affairs VP Robert Pepper. Speaking at PTC '10, Pepper said broadband was becoming regarded as "the fourth essential infrastructure," as governments globally struggle to devise strategies for the broadband needs of nations.

"In terms of global IP traffic overall, and we're talking about the global networks, not the local access networks, we believe it's going to grow six-fold between 2007-2012," he said. "By 2012 you're going to see half a zettabyte crossing the global network. What's a zettabyte? A zettabyte is 10 to the 21st. You have kilobytes, megabytes, gigabytes, terabytes, petabytes, exabytes, and then zettabytes. What's beyond zettabytes – yottabytes."

To put it numerically, a zettabyte comes in at 1,000,000,000,000,000,000 bytes.

Cisco's prediction is that video will be the driver for much of the growth – both on fixed line and increas-

ingly on mobile networks. “What we’re seeing basically is a 46% compounded annual growth rate across the board. In terms of consumers, we’re seeing a 41% compounded annual growth rate and video is going to account for 50% of that traffic, and it’s video which is not necessarily traditional television, that will only be a portion of the video. And a lot of it is going to be two-way video, including gaming,” he said. “In terms of mobile networks, video will account for 64% or roughly two-thirds of the mobile traffic by 2013. The networks in place today will not support that.”

“What we found is that 10% of the broadband subscribers globally are using 60% of the traffic. The top 1% are using 20% of the resource, and globally the average connection is using 11.4GB per month,” Pepper said.

The figures present a challenge to governments, Pepper believes, who are faced with a population regarding broadband as a utility like electricity or water. “In every country globally there is an ongoing debate about broadband,” he said. According to Pepper, the debate comes in four stages: is there coverage, is there adoption, are there high speeds and low prices, and the final stage, is it high-quality. “The question governments are asking is, how do I compare and how do I get better?”

Luke Coleman

Skype’s “perfect storm” for mobile, web growth

A boom in smartphones and the emergence of new HTML standards has created a “perfect storm” for a surge in VoIP applications, according to Skype. Presenting at PTC ’10, Skype’s chief technology strategist Jonathan Rosenberg said smartphone advances would allow millions of users to bypass traditional mobile voice rates and instead move voice minutes onto VoIP platforms.

“We have the rise of the smartphone platforms that are capable of hosting and providing applications like Skype and rich communications, we’re seeing an increase in capacity for both Wi-Fi and today’s 3G and tomorrow’s 4G, and the final piece of it is the channel for delivery of these next generation applications to these devices – the rise of the app store... has created a huge appetite for distribution channels like Apple’s app store to bring application providers like us to bring new functionality to users.”

“To bring this together, we’re finally going to see the beginnings of mobile voice over IP. In fact this is already beginning to happen. The iPhone application that Skype provides is one of the most popular applications of all time, downloaded over 6 million times by users of the iPhone and we think that’s just the beginning.”

But while Skype already has millions of users on its desktop VoIP service, Rosenberg said VoIP would soon be moving into web browsers as standards developed. “We’re really seeing some fascinating changes in the web, and in particular the line between the web and real time communications is fading.”

Using Facebook and Google Wave already integrating real-time communications services, Rosenberg said the web would soon “have a voice” of its own. “That’s all being enabled by current and next generation standards. We’re now seeing, through work in the W3C, incorporation of voice and video functionality immediately in the browser through the voice and video tags that are struggling but eventually going to get standardised into the browser.”

“We’re also seeing tremendous improvements in interactivity in web applications Ajax and Flash have enabled applications on the web that look almost the same as desktop applications. And when you put all this together, the line between real-time communications, desktop applications and web applications is simply going to be zero. And as a consequence, I’m certain that tomorrow the web will have a voice and real time communications will be as seamlessly part of the web experience as browsing,” he said.



Luke Coleman

Internet also facing ‘perfect storm’!

The global Internet infrastructure is facing a ‘perfect storm’ scenario that can potentially disrupt performance and operation, says a new report by Arbor Networks.

While the company’s fifth annual Infrastructure Security Report focuses on the growing attacks on the Internet by botnets and other threats, it also highlights the fact that the Internet is now facing a “convergence of issues,” including the looming IPv4 exhaustion and the preparedness for migration to IPv6, DNS Security Extensions and to 4-byte ASNs.

Any one of these changes alone would constitute a significant architectural and operational challenge for network operators, the firm said. Considered together, they represent the greatest and potentially most disruptive set of circumstances in the history of the Internet, especially given its growth in importance to world-

wide communications and commerce, the firm added.

“Earlier major architecture changes were implemented when the Internet was an experimental network with little or no relevance to most people,” said Jennifer Pigg, vice president, Enabling Technologies, Yankee Group. “Today, the majority of global business networks are entirely reliant on Internet availability, stability and integrity. With the introduction of DNSSEC, IPv4 exhaustion and IPv6 deployment, these networks are facing a perfect storm: multiple, simultaneous, large-scale changes.”

According to the report, the Internet is not IPv6 ready. A majority of surveyed providers reported concerns over the security implications of IPv6 adoption and the slow rate of IPv4 to IPv6 migration, or at least the parallel deployment of IPv6, the report said.

“As in previous years, providers complained of missing IPv6 security features in routers, firewalls and other critical network infrastructure,” the report noted. “Other providers worried the lack of IPv6 testing and deployment experience may lead to significant Internet-wide security vulnerabilities.”

An Arbor Network study recently found that IPv6 traffic accounted for only 0.03% of all Internet traffic, up from just 0.002% last year. While this represented a significant increase, IPv6 still only accounts for a tiny fraction of aggregated traffic today, the report found.

“This year’s report shows that respondents are struggling to operate, maintain, secure and defend their networks in the face of looming IPv4 address exhaustion and concerns surrounding IPv6 migration and security,” said Craig Labovitz, chief scientist, Arbor Networks.

In addition to the operational and technical challenges of migrating to IPv6, Arbor Networks also noted that lack of skilled resources, and lack of clearly-defined operational policies and responsibilities and management understanding and commitment are also significant obstacles to IPv6 migration.

NTT Com expands footprint in China

NTT Communications has launched a new POP for its Arcstar Global IP VPN service in the southern Chinese city of Guangzhou in Guangdong Province.

The operator also announced that it will set up a new office in the city of Wuhan in Hubei Province – the first branch office of a global telecommunications company in the city.

According to NTT Com, Wuhan, in central China, and its surrounding cities, has been earmarked by the Chinese government for further economic and technological development with designated operating zones for business.

“The central China region comprising Hubei, Henan and Hunan provinces has been enjoying high GDP growth rates, attracting Japanese and other multinational companies to set up business hubs and capitalize on the region’s growing middle class,” the operator said. “Economic development is expected to be further stimulated by a high-speed railway opened between Wuhan and Guangzhou in December 2009.”



NTT Com currently operates branches mainly near China’s coast, including Dalian, Tianjin, Beijing, Shanghai, Suzhou and Guangzhou. The Wuhan branch will enhance NTT Com’s provision of ICT solutions, including fast support for operation and maintenance, in central China, the operator said.

The new POP in Guangzhou will serve China’s second highest concentration of Japanese and other multinationals, following only the Shanghai area, according to NTT Com. The new POP will shorten access lines for its customers in southern China and is connected to Japan and the rest of the Asia via Hong Kong.

Tata takes corporate security online

Tata Communications has launched what it calls a ‘managed two-factor authentication service’ as part of its Managed Security Services portfolio. According to Tata, the offering provides a globally consistent solution that helps organisations secure access to internal networks and infrastructure and prevents unauthorised access within and without an organisation.

“Enterprises around the globe are leveraging mobile devices and laptops on an increasing basis, raising the risk of a security breach,” said John Landau, senior vice president of Global Managed Services for Tata Communications. “While two-factor authentication offers far more protection for enterprises than passwords, many enterprises have delayed the adoption because of the complexity of deployment, staffing requirements and infrastructure cost. Our hosted managed authentication service addresses these challenges for customers and reduces the cost of ownership for safeguarding the enterprise against unauthorized access.”

The service infrastructure supporting the new service is hosted by Tata Communications and is deployed to authenticate corporate users before they are granted access to their organisations applications, data, services and network devices, Tata said. Users enter a personal identification number (PIN) and a six digit one-time passcode displayed on a token with the system’s two-factor authentication. Both hardware-based and

software tokens are available as options for corporations, the operator added.

“Our software token technology and managed authentication service offer a compelling price advantage for mass deployment through mobile devices that can enable service providers and enterprises to quickly establish and maintain large-scale, trusted infrastructures,” said Landau. “With more managed and secure end points, the volume of B2B and B2C communications will increase and this will help improve operational efficiency and streamline e-business transactions.”

Tata is partnering with RSA – the security division of EMC – to provide the new service.

NTIA awards more stimulus grants

The US National Telecommunications and Information Administration awarded a further US\$63 million in broadband stimulus grants.

The latest round of wins cover broadband access projects in Massachusetts, Michigan and North Carolina. Three proposals received funding, including a US\$33.3 million grant to Merit Network for building a 1,536km fiber network in Michigan. Michigan State University secured a US\$985,000 computer center grant while the University of Massachusetts won US\$780,000 to promote broadband awareness. The NTIA gave MCNC a US\$28.2 million infrastructure grant to deploy a 795km middle mile broadband network in North Carolina.

Announcing the handouts, commerce secretary Gary Locke said broadband was the "lifeblood of today's economy. Having access to the Internet's economic, health and educational benefits should be as much of a fundamental American right as attending a quality school. Our best minds should be able to talk to one another, create and innovate regardless of where they come from. These grants are an important step toward expanding high-speed Internet access into the unserved and underserved areas of the country."

The small pot is unlikely to mollify critics of the stimulus process, who have accused the NTIA of trickling out awards. The NTIA has issued just 15 grants totaling US\$200 million.

Patrick Neighly

Switch & Data completes New Jersey route

Switch and Data announced Lexent Metro Connect completed a dark fiber route to its North Bergen site in New Jersey.

The deployment gives the data center operator low-latency interconnectivity to multiple key colocation sites and financial exchanges throughout New York, allowing it to significantly enhance services for its North Bergen customers without having to subscribe to a costlier Ethernet private line or similar carrier solution.

Switch and Data said Lexent had also joined its GeoReach program, which certifies providers capable of serving the high-frequency financial trading community. “Lexent’s network provides our customers with high-quality and resilient dark fiber network connectivity to a wide variety of customers in the financial services space. Delivering multiple, robust connectivity options is key for our clients,” explained Switch and Data financial services vice president John Panzica. GeoReach partners ensure ensure low-latency links between Switch and Data Financial EcoCenters and regional liquidity providers.

EQUINIX SIGNS ABOVE NET

Equinix signed AboveNet to its NY1 International Business Exchange data center. The move puts the enterprise connectivity player in all 20 Equinix US IBX locations, enabling AboveNet to significantly boost latency and its ability to directly interconnect with peering networks. AboveNet sales head John Jacquay said the company would also benefit from better access to current IBX customers. “Equinix’s centers offer an opportunity to make our services available nationwide to a large audience of enterprises, content companies and networks already operating within Equinix’s centers,” he said. “We have enjoyed a long and successful relationship with Equinix, and this new deployment in New York marks a significant milestone in that collaboration.” The agreement comes one day after AboveNet announced a separate New York data center pact with Telehouse.

GILAT WINS COLOMBIA DEAL

Gilat Satellite Networks secured a one-year contract extension for a digital divide project with the Colombian ministry of communications. The agreement covers wholesale capacity for rural deployments and telecenters for the remainder of the calendar year. The extension includes an estimated US\$1 million in monthly government subsidies provided certain milestones are met.

VODAFONE, AL-LU DEPLOY HYBRID MOBILE BASE STATION IN QATAR

Vodafone Qatar and Alcatel-Lucent have deployed what they claim to be the first hybrid powered base station in Qatar. The mobile base station uses both solar and wind energy. The project made sure that the wind turbine at the Qatar site was mounted at the top of the existing mast to leverage higher winds. The energy controller simultaneously draws power from both the photovoltaic panels and wind turbine, based on solar intensity and wind speed. The system also carefully monitors battery charging cycles and diesel generator maintenance runs so as to maximize their lifespan. A full monitoring system enables real-time tracking of all weather and energy parameters; a key component to enabling large scale deployments, the firms said.

FAR EASTONE UPGRADES HSPA NETWORKS WITH ERICSSON

Far Eastone Telecommunications is planning to sign a deal with Ericsson to extend the coverage of its HSPA networks to all areas in Taiwan within three years, according to industry sources. Total capex for the upgrades will reportedly hit US\$93.75 million to US\$125 million in 2010, accounting for over 50% of the company's overall capex projected for the year, reported Digitimes. Rival carrier Chunghwa Telecom also plans to spend around US\$94,000 upgrading its HSPA networks in 2010, while another carrier Vibo Telecom aims to upgrade its 3.5G networks with a budget of US\$63,000, added the sources.

TAIWAN'S IT SPENDING TO EXCEED US\$6 BILLION, SAYS IDC

The Taiwan market will spend at least US\$6 billion on information technology products and services in 2010. This translates to a 4.3% increase from last year, according to International Data Center Taiwan. This spending rate consists of US\$3.8 billion for hardware products, US\$835.6 million for software products and US\$1.5 billion for various services, said IDC Taiwan. Moreover, demand for services based on cloud computing technology, including infrastructure, platforms and applications in the Taiwanese market will take off in 2010. This will influence the model for enterprises to set up their IT infrastructure, IDC Taiwan noted.

ZTE BUILDS CDMA NETWORK IN INDONESIA

PT Smart Telecom may see the fruits of its deal with ZTE Corp, with the completion of a CDMA2000 1x EVDO Rev.B (DORB) network in the country. Composed of 48 base stations, the DORB network will mainly serve the tourist island of Bali first, where consumers are expected to experience average and maximum wireless downloading speeds of 8.6Mbps and 9.3Mbps respectively. PT Smart Telecom plans to finish the DORB improvement on all its Bali-located base stations in the first quarter of 2010, and the company's DORB upgrade is expected to end in big and mid-size Indonesian cities by this year-end.

PHILIPPINES GETS NEW WIMAX OPERATOR

The Philippines will see a new WiMAX operator entering the market with Liberty Telecom poised to launch its commercial network soon. Liberty trialled a free pilot service to selected clients in Metro Manila, Mandaluyong, San Juan, Makati and Quezon City. It is now gearing for a full-blown service- GoingWimax.com The new-comer, which is backed by San Miguel Corp and Qatar Telecom, holds 40MHz of bandwidth in the 2.5GHz-2.7GHz range. It claimed that its new services will be priced lower than its rivals in a bid to sign up new users quickly. Rates may be offered for as little as US\$5.45 per month, it said. Liberty is counting on WiMAX and broadband Internet to bring the company back to profitability and is expecting the service to account for 90 percent of projected sales and subscriber base. Competition in the market is heating up for WiMax customers with Globe Telecom having launched a WiMAX network and Smart Communications owning some WiMAX frequencies in the country.

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