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NETWORKWORLDASIA

ASIA'S SOURCE FOR ENTERPRISE NETWORK KNOWLEDGE

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PRODUCT EXCELLENCE
AWARDS 2013



THE WINNERS

PLUS: HALL OF FAME and RISING STARS

Published By QUESTEX

2014 THE YEAR AHEAD – technology trends and predictions







Winner

Data Center Cabling Solutions Category

(Inaugural award winner)

Structured/Physical Network Cabling Category

(Hall of Fame, 4 consecutive years)

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NETWORKWORLDASIA

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On cloud nine

And since it's coming to the close of the year, there's no better time to review **NetworkWorld Asia**'s 8th year of existence, and to reminisce the team's experience. Overall, despite the ups and downs, there's cause for celebration...

Thanks to the support and participation of industry leaders and our readers, the increasingly prestigious 2013

Readers' Choice Product Excellence Awards could only grow bigger and better on its 8th anniversary. We saw an unprecedented 34 winners honored in 33 award categories.

To celebrate the 8th anniversary of

Tan May Yee mytan@questexasia.com

n a twinkle of an eye, 8 years have come and gone! the Awards, we have introduced the Rising Star Awards this year to recognize vendors and service providers who are meeting the needs and demands of enterprises today with next-generation solutions and technologies that will see them through their IT infrastructure challenges into the future. Six such innovative companies are honored in the inaugural Rising Star Awards.

> What's more, to celebrate the success of Network-World Asia and the Readers' Choice Awards, 9 industry leaders that have won Readers' Choice Awards in the same category for at least 3 consecutive years are immortalized in our Readers' Choice Awards Hall of Fame. This is the highest honor from both our readers and the Network-World Asia team.

> Celebrate with us, and on to cloud (and year) nine as we look forward to a great 2014 together!

Out goes the cloud

The concept of cloud computing has pervaded discussions on IT infrastructure among IT leaders the last few years, reaching a peak in 2013.

Since it's that time of the year when we traditionally gaze into the crystal ball, let me hazard a prediction: that the mention of "cloud" would start fading in 2014, ultimately disappearing in 2-3 years' time.

That's not to say that the concept would disappear. Rather, cloud computing – after several years of hype and hope, haze and clarity, hybrid and reality - is becoming mainstream and will be a mainstay in enterprise IT infrastructure soon. In other words, "cloud computing" would simply be "computing" in time to come.

Precedence was set by the BYOD trend (which I sort of predicted in this column a few issues ago). Today, the term "BYOD" is fading into mainstream enterprise mobility as notebooks, tablets and smartphones supersede desktops and thin clients (see page 50).

The hybrid cloud has played out to be the preferred model for most organizations, although the public cloud will continue to be an attractive option for smaller enterprises, especially with cloud infrastructure and service providers offering more mature IaaS, PaaS and SaaS. Hybrid is critical in addressing privacy and data sovereignty

Security, service levels and governance for the cloud is also maturing, thanks to government cloud implementations, which set the standards for GRC management many of which are borrowed and modified from the telco and finance sectors.

If the term "cloud" is going out, what's likely to take its

place? Would it be "big data", "big analytics", "softwaredefined everything" or "the Internet of everything"? I'll leave that discussion to the experts (see pages 4-9).

What we can be sure about is that the role of IT is transforming. CIOs and IT departments are experiencing a change in the ways they relate to other C-suite executives and the lines of business within their organizations. I foresee that, instead of just being traditional IT infrastructure builders and technology development project managers, they will increasingly play the role of the internal business IT services broker.

With the advent of the mainstream cloud and the changing role of IT departments, traditional systems integrators' roles would have to transform as well. Some thought leaders are suggesting they would become cloud service brokers. How important is that role, really (see page 56)?

But there's always a role for innovative vendors and solution providers, which the winners of the 8th Readers' Choice Product Excellence Awards bear testament to (see pages 10-41).

NetworkWorld Asia introduced both the Readers' Choice Awards Hall of Fame (see page 12) and Rising



Star Awards (see pages 40-41) this year to celebrate our 8th annual awards program.

On this auspicious note, we extend to you - our dear readers - our blessings for the Christmas season and best wishes for the New Year!

vng@questexasia.com

Over 280 million records compromised last year. Customer losses from hack attack reaches \$2.7M. Bank hack exploited easy-to-detect web flaw. Bank and few other sites hacked by Sepo. Company fined over 'preventable' data hack. Are You the Next Target? Hackers deface Company website, leave messages. Class-action lawsuit filed in hacking case. 62 Government Websites Hacked. Company Faces Class-Action Lawsuit Over Hacking. Major Corporations Attacked in Historic Hacking Case. Sive charged in breach that led to \$300 million in losses

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significant impact on enterprises over the next two to three years.

"[These are the] technologies that clude: companies should factor into their strategic planning processes," says Gartner's David Cearley. "This does not necessarily mean adoption and investment in all of the listed technologies, but companies should look to make deliberate decisions about them."

These technologies impact the organization's long-term plans, programs and initiatives. They could disrupt IT or the business, require a major dollar investment, or raise the risk of being late to adopt.

A strategic technology may be an existing technology that has matured and/or become suitable for a wider range of uses. It may also be an emerging technology that offers an opportunity for strategic business advantage for early adopters or with potential for significant market disruption in the next five years.

Nonetheless, Cearley adds that the Nexus of Forces - the convergence of Script performance will begin to push social, mobile, cloud and information HTML5 and the browser as a main-

artner has identified 10 tech- demand for advanced programmable ment environment, Gartner predicts. nologies with the potential for infrastructures that can execute at web-scale.

Gartner's top 10 strategic trends in-

1. Mobile device diversity and management

Through 2018, the growing variety of devices, computing styles, user contexts and interaction paradigms will make "everything everywhere" strategies unachievable. The unexpected consequence of bring-vour-own-device (BYOD) programs is a doubling or even tripling of the size of the mobile workforce.

This compels IT and finance organizations to review, update and extend enterprise policies on employeeowned hardware usage. They have to set policies to define clearly what users can and can't do, balancing flexibility with confidentiality and privacy requirements.

2. Mobile apps and applications

Through 2014, improved Java-continues to drive change, creating stream enterprise application develop-

Gartner recommends that developers create expanded user interface models, including richer voice and video that can connect people in new and different ways. They should also look for ways to snap together small, targeted apps to create larger, more comprehensive applications.

Meanwhile, building application user interfaces that span a variety of devices require an understanding of fragmented building blocks and an adaptable programming structure that assembles them into optimized content for each device.

3. The Internet of Everything

The Internet is expanding beyond PCs and mobile devices into enterprise assets such as field equipment, and consumer items such as cars and televisions.

The combination of data streams and services created by digitizing everything results in four basic usage models - Manage, Monetize, Operate, Extend.

These four basic models can be applied to any of the four 'internets' (people, things, information and places), not only things. Enterprises

weightless - can also leverage these four models.

4. Hybrid cloud and IT as service broker

Bringing together personal clouds and external private cloud services is an imperative. Enterprises should design private cloud services with a hybrid future in mind and make sure future integration or interoperability is possible.

The responsibility of managing a composition of static and dynamic hybrid cloud services will fall on a cloud service broker (CSB). The CSB aggregates, integrates and customizes services. Enterprises that expand into hybrid cloud computing from private cloud services naturally fill the CSB role.

'Overdrafting' and 'cloudbursting' are often used to describe hybrid cloud computing possibilities. But most hybrid cloud services will initially be more static, likely integrating an internal private cloud and a public cloud service for certain functionality or data. As CSBs evolve, private IaaS offerings could, for example, leverage external service providers based on policy and utilization.

5. Cloud/client architecture

In the cloud/client architecture, the client is a rich application running on an Internet-connected device, and the server is a set of application services hosted in an elastically scalable cloudcomputing platform.

The cloud is the control point and system or record; applications can span multiple client devices. The client environment may be a native application or browser-based.

Robust capabilities in many mobile devices, the increased demand on networks, the cost of networks and the need to manage bandwidth use may create incentives to minimize the cloud footprint and to exploit the intelligence and storage of the client device. However, the increasingly complex demands of mobile users will drive apps to require increasing

from all industries - heavy, mixed and amounts of server-side computing and storage capacity.

6. The era of personal cloud

In a power shift away from devices toward services, the specifics of devices will become less important for the organization to worry about, although the devices will still be necessary.

Users will use a collection of devices, with the PC remaining one of many options, but no one device will be the primary hub. Rather, the personal cloud will take on that role. Access to the cloud and the content stored or shared from the cloud will be managed and secured, rather than solely focusing on the device itself.

7. Software-defined anything

Software-defined anything (SDx) encapsulates the growing market momentum for improved standards for infrastructure programmability and data center interoperability. It is driven by automation inherent to cloud computing, DevOps and fast infrastructure provisioning.

SDx also incorporates various initiatives like OpenStack, OpenFlow, the Open Compute Project and Open Rack, which share similar visions. As individual SDx technology silos evolve and consortiums arise, Gartner anticipates emerging standards and bridging capabilities to benefit portfolios.

But enterprises should challenge technology suppliers to demonstrate their commitment to true interoperability standards within their specific domains. Still, different interpretations of SDx definitions may be anything but open.

Vendors of SDN (network), SDDC (data center), SDS (storage), and SDI (infrastructure) technologies all want leadership in their respective domains, while deploying SDx initiatives to aid market adjacency plays. So, they may reluctantly abide by standards that could lower margins and open broader competitive opportunities.

8. Web-scale IT

Large cloud services providers such

as Amazon, Google, Facebook, etc., are re-inventing the way in which IT services can be delivered. Their capabilities go beyond scale in terms of sheer size to also include scale in speed and agility. If enterprises want to keep pace, then they need to emulate the architectures, processes and practices of these exemplary cloud providers.

Gartner calls the combination of all of these elements web-scale IT. Webscale IT looks to change the IT value chain in a systemic fashion. Data center designs that reduce cost and waste go beyond energy-efficient facilities to also include in-house design of servers, storage and networks. Weboriented architectures facilitate flexible and resilient systems that recover from failure more quickly.

9. Smart machines

Through 2020, a proliferation of contextually aware, intelligent personal assistants, smart advisors, advanced global industrial systems and autonomous vehicles will herald the smart machine era. It will be the most disruptive in the history of IT. Gartner expects enterprises and individuals to invest in, control and use their own smart machines to become more successful. Consumerization versus central control tensions will not abate. Smart machines will strengthen the forces of consumerization instead after enterprise buying commences.

10. 3-D printing

Worldwide shipments of 3D printers are expected to grow 75% in 2014 followed by a near doubling of unit shipments in 2015. While very expensive 'additive manufacturing' devices have been around for 20 years, the market for devices ranging from US\$50,000 to \$500, and with commensurate material and build capabilities, is nascent yet growing rapidly.

The consumer market hype has made organizations aware of 3D printing as a real, viable and cost-effective means to reduce costs through improved designs, streamlined prototyping and short-run manufacturing. NWA

Internet of Things' US\$67 billion GDP booster

scale of opportunities in an increasingly urbanized world, according to AGT International, a public safety and security solutions provider.

Gartner recently forecast that "by 2020, there will be up to 30 billion devices connected with unique IP addresses, most of which will be products", up from 2.5 billion in 2009. The research firm predicts that the total

S\$67 billion - that's how much the Internet economic value add for the Internet of Things will be of Things could add to the current GDP of the \$1.9 trillion in 2020. On this basis, the wealth of the world's ten richest cities if they understand the world's ten richest cities could be boosted by an additional \$67 billion if this potential could be realized on their current GDP.

> "We have more information at our fingertips today, than at any time in history," says Mati Kochavi, CEO and founder of AGT International, "Cities are the heartbeat of our economies and growing at a phenomenal rate. One of the biggest challenges of the Internet of Things is the amount of data to be processed and analyzed in a

IBM: Customers' cue help C-suite steer strategy

timely manner."

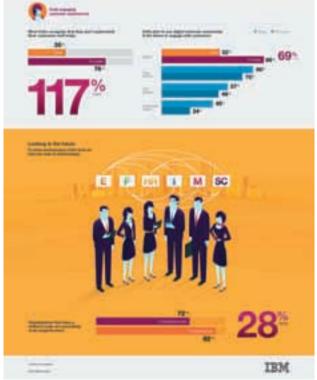
advisors to the C-suite as 90% of senior leaders expect extensive collaboration with customers within the next five years, according to a recent IBM study.

The study is based on face-to-face conversations with more than 4,000 C-suite leaders from 70 countries and 20 industries worldwide. It reveals that 60% of CEOs plan to directly engage their customers and proactively

ustomers are poised to become the 'new' business apply what they learn to set their business agendas in the next three to five years - up from 43% of CEOs who do so currently.

> The 54% of CxOs who believe customers must be understood and engaged as individuals rather than categories or market segments are on the right track since CxOs in outperforming enterprises are 62% more likely to understand their customers well, according to IBM.







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Stephen Ho, CEO of CITIC Telecom CPC

form-as-a-service (PaaS). The building blocks of cloud services in the infrastructure-as-a-service (IaaS) landscape were also entering the stage of maturity. Fierce competition within the software-as-a-service (SaaS) market has emerged and caused a certain level of complications in the market place.

For enterprises considering a move towards adopting cloud technology, security was still a major concern. However, these security concerns can be overcome when the selected cloud solutions that are built in the market have proper security features incorporated.

What the industry has to realize is that cloud computing consists of a very broad range of services and ultimately, re-

n 2013, we saw more technology convergence in plat- gardless of the size of the service providers' range of products or services, the winners will be those that provide solutions that are able to fulfil real business needs.

In 2014, the focus on cloud computing will move beyond

offering many different types of services for different functions, to integrating the various building blocks of these services to provide viable solutions to enterprises.

Therefore, leveraging IaaS, SaaS or even PaaS (mainly for developers) and successfully integrating them for specific business needs is the most important step.



Lionel Lim, president of Asia Pacific and Japan, CA Technologies



The 'Internet of Things' gained momentum in 2013. Sensors are increasingly embedded into a wide array of devices spanning applications such as disaster management, healthcare and transportation.

In 2014, these technologies will drive additional demand for IT to manage, store, analyze and secure the data they generate. We also see the rise of expe-

rience-centric everything. User empowerment has driven the DevOps movement to bring developers, testers and business closer together, leading to the rise of experienceled design.

Exploitation of sensing technologies available in mobile and wearable devices will increase as the 'Internet of Things' takes hold. Consumerization will accelerate as enterprises embrace the rich, immersive user experience consumers are used to from mobile applications.

In parallel, the management of mobile or social IT will become more about managing and securing the mobile applications and mobile data than the devices themselves, all while preserving the user experience.

In 2014, IT will drive stronger engagement models between the business and the services it delivers. By focusing on delivering systems of engagement through mobility and multi-channel, atomized applications and relying more confidently on application performance management, IT is now moving more strongly into the role of a trusted advisor and service broker in this brave new world of complex IT.

Gary Newbold, vice president for Asia Pacific and Japan, Extreme Networks

loud and BYOD had a successful year in 2013 because the supporting technology and network, as well as the staff supporting the underlying infrastructure, were ready.

With cloud-hosted applications, the service providers

technology and implemented network virtualization to decrease their costs. Next, the right applications that should be delivered over the cloud were chosen. Customers then were given the choice of a few services and applications that made sense to outsource.

For BYOD, the success of this trend meant taking a network-centric approach in security and network authentication. The result of volume deployment has yielded increased flexibility for users and a path to the future of supporting any device. Looking ahead, software-defined networking (SDN) has

the potential to revolutionize enterprise networks by slashing the complexity and costs of network administration. Vendors have efficiently built their networks to scale using 10GbE are in a race to demonstrate support of applications while the

debate is still ongoing regarding northbound interfaces and the use of the OpenFlow protocol.

To migrate to SDN, switches need to support traditional functionality, an interoperable SDN controller and SDN protocols. This will add sophistication to switch design, and only proven network vendors are likely to be capable enough to deliver the innovation required.



Gery Messer, managing director of Asia, Savvis

emand for more responsive and high-bandwidth taking the lead in IT infrastructure infrastructure services that support the increase in volume, velocity and variety of data, is growing. Big Data use cases will become important as Data Governance and Analytic Algorithms integrate with cloud services. As a result, more businesses will shift to scalable, secure computer and storage networks and platforms to access, integrate and maximize the value of their analytics investment.

However, migration to the cloud will be in phases with IT leaders adopting hybrid IT outsourcing models. Cloud will move from mostly private deployments to hybrid, which also means co-location, managed hosting and multi-cloud federation. Colocation, in particular, will be the environment of choice amongst IT leaders in the next two years, followed by managed services in the next five years and cloud eventually

models.

Integration between application, platform and the cloud is growing in importance. The need to understand the underlying IaaS to develop and migrate applications across multi-cloud platforms and services has slowed cloud development and adoption. In the next 12 months, the focus



will be on supporting application-driven cloud usage, and cloud providers that integrate PaaS into their IaaS with security policy and governance will enable businesses to develop applications on the cloud.

Jack Zubarev, president and general manager of Cross Platform Business, Parallels

manage and secure the infrastructure while providing a consistent user experience not only for the Mac and Windows stacks but also the iOS, Android and Windows Phone stacks. The complexity of the end-user infrastructure has been further multiplied by the BYOD trend with employee-owned and company-issued devices. This trend will continue [for several years].

So, we're helping the IT department to unify these different stacks and to secure and manage a cross-platform environment. They have

In the proliferation of tablets, it has become night- a single Windows image to manage on physical hardware marish for IT departments and CIOs, who have to as well as virtual machines. As an add-on to Microsoft System Center, our solution manages Macs as



well as Windows virtual machines running on Macs. We're also enabling access to the PC stack and Mac stack from the tablet on [another product] where we're definitely working on a version for enterprise deployments in 2014. We're creating the best experience for using desktop applications on your tablet. We're adapting the touch interface - you don't have a mouse, right and left clicks or a large screen to the PC paradigm.

Jean Turgeon, vice president of World Wide Consultants and **Distinguished Solutions Engineering, Avaya**



ustomers are investigating and seriously considering moving portions of their [communications] services into a cloud offering from a local or Tier-1/Tier-2 service provider. The first phase of that was proba-

bly unified communications (UC). [Enterprises are comfortable] hosting UC telephony in the cloud, but contact centers are more critical. Obviously, there's more unified communications-as-a-service (UCaaS) momentum out there and there have been huge deployments of video conference-as-a-service (VCaaS) and multiple large service providers hosting that. However, contact center-as-

a-service (CCaaS) is not happening at the same pace.

The other trend is the impact on contact centers with regards to multimedia integration – the ability to start a conversation with a web chat, then elevate to an audio call, then to video but also now to real-time collaboration. So, the way we interact with a contact center agent is changing. And we need to record web chats, audio, video and realtime collaboration.

That's tied to Big Data. That's where software-defined networks, software-defined data center, etc., and the networking aspect of Avaya really starts to bloom internally. In addition, social networking and the analytics of it also needed to be integrated within the contact center. We need to enable real-time collaboration, mobilize video conferencing and record them. It's no longer about unified communications; it's about mobile real-time collaboration.

READERS' CHOICE

PRODUCT EXCELLENCE **AWARDS 2013**



Readers' Choice Product Excellence Awards 2013

The auspicious 8th year of the annual NetworkWorld Asia Readers' Choice Product Excellence Awards could only get bigger and better!

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TE Connectivity

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Thanks to the support and participation of industry leaders, the enterprise end-user community and our readers, the increasingly prestigious NWA Readers' Choice Product Excellence Awards saw an unprecedented 34 winners honored in 33 award categories on 30 October 2013 at the Awards Presentation Ceremony & Dinner.

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Secure mobile/remote access solution	Symantec
Contact center solution	Avaya
Unified communications & collaboration	Cisco
Application performance management solution/tools	Compuware
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Ruckus

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RISING STARS AWARDS 2013

Rising Stars



And to celebrate the 8th anniversary of the Awards, we have introduced the Rising Star Awards this year to recognize vendors and service providers who are meeting the needs and demands of enterprises today with next-generation solutions and technologies that will see them through their IT infrastructure challenges into the future. Tonight, 6 such innovative companies will be honoured.

Judging Criteria

The awards are conferred based on votes from readers of NetworkWorld Asia magazine, and the Networks Asia, Security Asia and Storage Asia portals. This year, 349 CIOs, technology directors, IT project heads, network managers and data center managers in end-user organizations voted online in August and September 2013 for the IT vendors and service providers that have made the most impact on their organizations in the course of the year.

Award Category	Winner
Rising star - Networking solution	Ruckus
Rising star - Network security solution	Barracuda Networks
Rising star - Data protection solution	SafeNet
Rising star - Communication & collaboration	ShoreTel
Rising star - Data center appliance/tool	Ixia
Rising star - Information visualization & analytics	Tableau





Hall of Fame



What's more, 9 industry leaders that have won Readers' Choice Awards in the same category for at least 3 consecutive years are immortalized in our Readers' Choice Awards Hall of Fame that night. This is the highest honor from both our readers and the NetworkWorld Asia team!









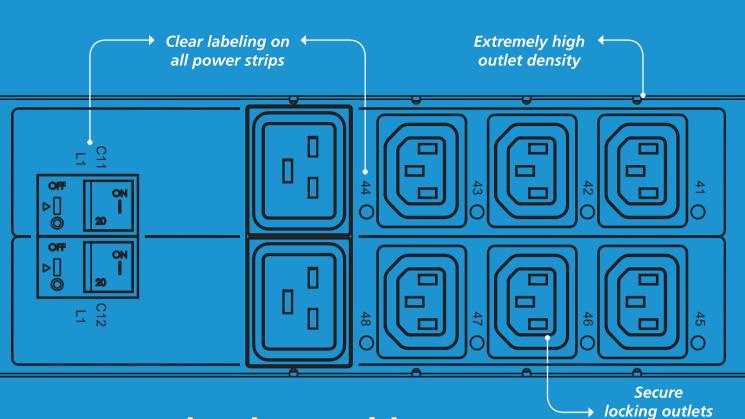












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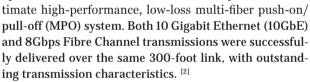
According to the Cisco Visual Networking Index, "The number of devices connected to IP networks will be nearly three times as high as the global population in 2017. There will be nearly three networked devices per capita in 2017, up from nearly two networked devices

per capita in 2012.

Accelerated in part by the increase in devices and the capabilities of those devices, IP traffic per capita will reach 16GB per capita in 2017, up from 6GB per capita in 2012." [1]

To meet this enormous bandwidth challenge, TE Connectivity relentlessly pursues innovation. For example, TE recently demonstrated a 10-connector channel in a data center design.

The 300-foot channel comprises multiple sections of optical multi-mode (OM) 4 fiber-optic cable interconnected with TE's MPOp-



This achievement highlights TE's success in supporting 10GbE for the data center, notably with its MPOptimate 12-fiber trunk offering. This optical cable uses a 12-fiber OM3 or OM4 Low Smoke Zero Halogen (LSZH), indoor or outdoor, with a diameter of 7.5 + -0.4mm.

With these MPOptimate trunk cables, the data center manager can, for example, build a channel with up to 6 MPOptimate cassettes in conjunction with other MPOptimate cabling in an OM3 or OM4 channel to 300 meters and still meet the Insertion Loss and Return Loss specifications for 10GbE.

MPOptimate is an optimized MPO/MTP fiber-optic system that utilizes TE's proprietary fiber connector polishing process, resulting in a lower loss (<0.25dB worst case) and a higher return loss (>28dB), providing robust performance.

Nonetheless, innovation at TE never stands still. A very recent addition to the MPOptimate portfolio is a 24-fiber Trunk system, which enables migration from 10GbE to higher-speed 40/100GbE or 8/16Gb Fibre Channel, future-proofing the customer's infrastructure investment.

Data center managers looking to move to higher bandwidth and service levels, will appreciate the superior economics and simplicity of TE's 24-fiber trunking and interconnect solution, and the support it offers for future applications and devices. It offers a consistent fiber infrastructure over the next three generations of equipment, an easy migration to higher speeds, and a higher utilization of the fiber investment.

Traditional MPO trunk cable has an outer diameter of 6.4mm, but TE's 24-fiber MPOptimate trunk cable has

an outer diameter of only 3.8mm, a saving of 50% in pathway space, making the transition from current 1GbE and 10GbE applications to 40GbE and 100GbE straightforward and cost-effective.

Another recent announcement from TE is the Core Vertical Switch Management (Core-VSM) platform, an innovative solution to meet the challenges posed in the data center by the high-density Cisco Nexus 7010 core switches.

The platform consists of a cable management guide that fits above the switch and copper or fiber modules that provide connections for blades of either media.

Further, TE's Quareo intelligent platform and Infrastructure Configuration Manager (ICM) software deliver full visibility of connectivity in the physical layer. ICM can be seamlessly integrated into existing network management software, to enable granular visibility and full control of the complete network.

To demonstrate these innovative solutions, TE Innovation Centers (TEIC) have now been set up in Hong Kong, Singapore, Malaysia, Vietnam and Thailand. More TEICs will be completed in 2014. At these centers, IT managers will be able to view TE's award-winning solutions and understand how TE helps them to anticipate their future connectivity needs and meet the design imperatives that drive an agile data center infrastructure.

Sources

[1] Cisco Visual Networking Index (VNI): Global IP Traffic Forecast, 2012-2017

[2] http://www.cnbc.com/id/101136925

Best desktop virtualization solution: Parallels

Easy management of Macs, PCs in the enterprise

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Parallels Desktop for Mac is designed specifically to enable Mac users to seamlessly run both Windows and Mac OS X applications side-by-side, with as minimal support by IT as possible.

Designed for ease-of-use and enterprise-grade stability, Parallels Desktop for Mac Enterprise

Edition comes with a Mass Deployment Application that lets IT administrators centrally configure and control Parallels Desktop. Pre-configuring virtual machines allows 'lights-out' deployment, saving significant time because new Macs can be deployed in a matter of minutes instead of hours or days using standard Mac management tools.

And for organizations that use the Microsoft System Center Configuration Manager (SCCM) to manage their PCs, they can easily extend this tool to manage Macs, Parallels Desktop Enterprise Edition and approved Windows stack running in Parallels Desktop Enterprise.

The Parallels Management Suite for SCCM is the industry's first universal and comprehensive cross-platform solution to manage Macs and PCs with ease. It automatically scans the network looking for Macs, auto-enrolling them as they are discovered.

Software discovery, distribution and inventory occur much like they do with Windows-based PCs, but without costly Mac-only infrastructure. Parallels has also enabled IT to manage the delivery of policy-compliant Windows stack to Mac users.

Best data center power management system: Schneider Electric Best data center cooling/ temperature management system: Schneider Electric

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Virtualization and cloud computing has disaggregated IT from physical systems and made adding new workloads as easy as deploying a virtual machine, but these new workloads affect power, cooling and connectivity, impacting efficiency and capacity.

To help organizations mitigate this impact, Schneider Electric — a global specialist in energy management with operations in more than 100 countries — offers integrated power and temperature management solutions from the facility down to the server level that iden-

The following organizations have leveraged Schneider Electric's solutions:

tify potential issues such as power or cooling impact.

BAM and energy efficiency

As part of its energy efficiency plan, Bangkok Asset Management (BAM) replaced its data center's old and outdated air conditioners with Schneider Electric's InRow Cooling systems placed between IT equipment racks. The InRow design draws in air from the rear, capturing heat from the IT equipment in the hot aisle, and neutralizing it before it mixes with the room air. The rack- and row-oriented cooling system fulfills BAM's energy savings, rightsizing, ease-of-operation and systems integration requirements. With the InRow Cooling System, BAM achieved 10 times cost savings, serving the IT energy policies set by its energy committee.

NUS and predictable cooling

NUS Computer Centre built a non-stop, mission-critical, 'future-proof' data center to provide infrastructure and hosting services for IT equipment serving the National University of Singapore. However, legacy approaches to data center cooling were found inadequate for the medium and high server density zones in the facility. So, the Schneider Electric modular rack containment system, combined with InRow cooling, was deployed in these zones to ensure predictable cooling behavior and enable cooling capacity to be right-sized to the heat load.

Heat is removed at the source, eliminating the mixing of hot and cold air streams, which allows the system to predictably control IT inlet temperatures. Additionally, intelligent controls of InRow cooling actively adjust fan speed and chilled water flow to match the dynamic IT heat loads, allowing energy conservation.

Elitery and Uptime Institute certification

An eight-storey data center built by PT Data Sinergitama Jaya, also known as Elitery, has become the first Uptime Institute-certified Tier 3 facility in Indonesia. As the onestop solution provider, Schneider Electric designed the center and deployed its UPS, cooling, racks, and building management system, along with other Schneider Electric products. The data center's tolerable downtime is less than 1.6 hours per year – a critical cost factor for large data center users.

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Best managed security services: Fortinet

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Fortinet's industry-leading network security platforms deliver Next Generation Firewall (NGFW) security with exceptional throughput, ultra low latency, and multi-vector threat protection. The FortiGate highend devices particularly deliver the scalability, flexibility, reli-

ability, and performance needed for enterprise networks.

The FortiGate-3700D announced in October 2013, for example, is capable of a 160Gbps firewall throughput. Targeted at enterprise data centers, large service providers, cloud providers and carriers, the FortiGate-3700D uses Fortinet's custom NP6 ASIC to deliver best-in-class performance, low latency and IPv4-to-IPv6 performance parity. Fortinet is the first network security company to deliver 100 Gbps+ firewall throughput and 40 GbE ports in a compact appliance, which redefines the standard for price including the top blocked sites which employees have at-

per gigabit protected, price per port density, power dissipation per gigabit and space per gigabit. This performance improvement lowers both capital and operational costs for customers.



SingTel deployment

For such reasons, Singapore Telecommunications Limited (SingTel) will be enhancing the SingNet eVolve and SingNet eLite corporate fiber broadband services with its Business Fibre Broadband Security Suite using Fortinet's technology. This will provide small and medium enterprises (SMEs) in Singapore with online content filtering to protect their networks. SMEs can also subscribe to the Broadband Protect anti-virus and anti-spam service for added security.

Fortinet's FortiGate security platforms host the security functions, including anti-virus, anti-spam, web filtering, IPS, VPN and application firewall, and provides organizations with enterprise-class protection against network, content and application-level threats. In properly planned and sized networks and appliances, these features can be turned on without degradation of firewall performance.

"Fortinet is delighted that our enterprise-class FortiGate platform is underpinning this partnership," says George Chang, Fortinet's vice president for Southeast Asia and Hong Kong. "Coupled with SingTel's wide reach among

BOWIN

Singapore businesses, more SMEs now have the opportunity to leverage advanced security technologies at affordable rates to become more resilient and competitive."

The cloud-based SingTel Business Fibre Broadband Security Suite is unique in that it intercepts security threats and eliminates them in the Internet cloud even before they reach a company's IT network. This is unlike conventional off-the-shelf security programs which require users to download software or install filters on their computers. SME owners can choose from three pre-defined protection levels to prevent their employees from accessing harmful websites.

The security solution provides additional protection through the anti-virus and anti-spam value-added services. These bundled services detect and prevent malicious software from corrupting or deleting data, and identify emails which are potential spam messages. Subscribers receive a monthly report which shows several metrics, tempted to access.

> "Cyber threats are a mounting risk to corporate networks," says Lee Han Kheng, vice president of Global Product

at SingTel Group Enterprise. "The SingTel Business Fibre Broadband Security Suite is tailor-made for SMEs which have little or no IT support. With no installation costs, or hardware or network changes required, they can save time and money with this hassle-free, scalable and effective solution to meet their cyber-security needs.

"Having a reliable, convenient and automated cloud security solution enables SMEs to protect their vulnerable IT networks from internal and external threats, thus giving them the peace of mind to focus on growing their businesses. It also allows them to embrace the 'bring-yourown-device' or 'BYOD' trend where companies allow their employees to bring their own devices to work."

Businesses of all sizes are increasingly relying on managed security service providers (MSSPs) for cost-effective, multi-threat security solutions and round-the-clock risk mitigation. An MSSP's ability to offer next-generation firewall, application control, intrusion prevention, web content filtering, VPN, spyware prevention and malware defense – as well as site-to-site and remote access via IP-Sec and SSL – provides a comprehensive set of security offerings that complement surging industry demand and subscribers' security needs.





Zero-Day Attacks Stopped at the Zero-Hour

Check Point Threat Emulation Software Blade prevents infections from undiscovered exploits, zero-day and targeted attacks. This innovative solution quickly inspects suspicious files, emulates how they run to discover malicious behavior, and prevents malware from entering the network. Threat Emulation immediately reports new threats to Check Point's ThreatCloud™ service and automatically shares the newly identified threats with other customers.

Learn about Threat Emulation:

www.checkpoint.com/products/threat-emulation/index.html

Best cloud infrastructure provider: SingTel Best managed infrastructure services: SingTel

SingTel

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



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Placing a priority on customers has always been the cornerstone of SingTel's service philosophy, giving it a keen edge in providing award-winning ICT services in Asia. Today, SingTel helps its customers address their IT chal-

lenges, with a wide range of

ICT services for end to end data management.

As a leading ICT provider in Asia, SingTel is constantly evolving to meet

key initiatives to strengthen its core infrastructure, including increasing network reliability with diverse cable netwith the latest in Carrier Ethernet and optical technologies.

Beyond connectivity, SingTel has continued to drive the adoption of cloud services to help businesses realize greater cost-efficiency and business flexibility. In this space, Sing-Tel has moved beyond well-established cloud services like Infrastructure-as-a-Service, Software-as-a-Service Platform-as-a-Service, to offering less conventional cloud services such as Security-as-a-Service and Connectivity-as-

> a-Service (electronic bandwidth on demand), constantly pushing the envelope of its cloud offering.

> SingTel will launch This year, Unified Communications-as-a-Service, extending the cloud all the way to the

its customers' needs. In the past year, SingTel implemented end user device to enable better and more cost-effective collaboration capabilities. With the launch of UCaaS, SingTel achieves true Fixed-Mobile-Cloud-Convergence: works, and revolutionizing its global data infrastructure seamless communications between fixed and mobile devices, delivered through the cloud infrastructure.

Ahresty Makes In-Roads into China and India with IP VPN

powered by SingTel

Aluminium die casting automotive parts manufacturer, Ahresty, faced challenges when it came to keeping its finger on the pulse of things. Its offices and factories in Japan, the US, Mexico, China, Thailand and India each had their own networks, but they were not linked up.

This changed when the company chose to use SingTel's ConnectPlus IP VPN. Since then, Ahresty has gained a seamless any-to-any connection to its global offices and the ability to monitor and track real-time end-to-end performance of its enterprise network – 24/7, 365 days a year.

With minimal need for additional resources to manage and operate, ConnectPlus IP VPN has enabled Ahresty to centralize information management and decision making, improving productivity.

Using SingTel's ConnectPlus IP VPN, Ahresty connects more factories than with its previous service provider, at the same cost. "With ConnectPlus IP VPN's cost effectiveness, we were able to add India and Thailand into the global network and power ahead our operations," says Yutaka Nagata, IT system Section manager in Ahresty's Management Planning Department.

The service included the Traffic Optimisation Profiling Service - Level Zero that offered enhanced visibility into network traffic patterns and client application sessions to help Ahresty keep track of their network at any point.

Best cloud infrastructure provider: Rackspace

Rackspace recently launched

the region's first hybrid cloud

powered by OpenStack, the open

source cloud computing plat-

form, in Hong Kong. The Rack-

space Hybrid Cloud encompass-

es public cloud, private cloud and

dedicated servers, working alone

or together in any combination in

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a unified infrastructure.

The Rackspace Cloud comes with industry-leading service-level-agreements and 24x7x365 support for all types of businesses and industries.

The RackSpace Cloud stands out from competitors by offering:

A flexible hybrid cloud platform that enables business-

- es to tailor their architecture to create the best fit for their unique set of applications and workloads
- A cloud optimized for open technologies and powered by OpenStack – the fastest-growing cloud platform with over 12,000 contributors in 130 countries - so businesses can stay in control of data, innovate and scale faster than with a proprietary cloud
- An award-winning Fanatical Support approach that puts the trusted expertise of Rackspace database administrators and certified professionals to work for customers, keeping everything running smoothly

As the first public cloud in Hong Kong powered by Open-Stack, the Rackspace Cloud provides companies with access to the power of open standards and enable them to enjoy freedom from vendor lock-in as they open new gateways to faster innovation through cloud computing.



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Best consulting and systems integration: Dimension Data

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Dimension Data's ICT consulting and professional services add value to businesses by providing strategy, architecture, implementation and integration services to help plan, build, improve and innovate their IT and business solutions. These services are delivered

across a range of technologies and delivery models, including mobility, cloud, IT outsourcing, networking, communications, data center, end-user computing, security and sustainability.

Dimension Data professionals around the world help advice businesses on optimal ways to use technology and services to transform the ICT environment and achieve higher levels of innovation. They help to develop a strategic roadmap that aligns IT strategy and investments to business priorities. They also assist in developing specific strategies for mobility, cloud, and IT-as-a-service to help companies unlock the potential of these emerging technologies.

Dimension Data works with businesses to architect a holistic solution that integrates new technologies with the legacy environment, in line with their IT strategy. As part of any transformation, they would identify the required changes to the ICT infrastructure – from network, communications, and security to the data center, enduser computing, applications, and service management – to ensure the new service delivers the desired return on investment and business outcomes.

As a full life cycle service provider, Dimension Data helps to implement, integrate, transition, manage and continually improve the solution — across a myriad of operating models. The US\$5.8 billion global IT solutions and services provider would also bring a disciplined, systematic approach using time-tested assessments, methodologies, frameworks and best practices to drive consistency and quality throughout the project engagement.

They offer strategy, architecture, implementation and integration services covering the major ICT domains and delivery models to help businesses plan and build innovative solutions and optimize their IT environment.

Dimension Data has achieved success with clients across Asia, including retail chains such as Kathmandu, and financial institutions such as Maybank and Bank of India.

Leader in Gartner's COPS Magic Quadrant for third consecutive year

Gartner recently positioned Dimension Data as a leader in its Magic Quadrant (MQ) for Communications Outsourcing and Professional Services (COPS) for the third consecutive year.

Gartner analysts examined 18 vendors of IT services for business communications systems worldwide, employing two main evaluation criteria. These are the 'ability to execute' and 'completeness of vision'.

CEO Brett Dawson was delighted with Dimension Data maintaining its position as one of the six leading organizations in the world for the two evaluation criteria.

"In addition, our acquisition of telecom expense management provider Xigo only 20 months ago in February 2012, is also paying off," Dawson said. "When we acquired Xigo, our goal was to accelerate the Group's offerings in the managed communications space. Today, Dimension Data delivers services to multinational clients across the world."

Dimension Data has also introduced its Communications Lifecycle Management services portfolio, which gives clients visibility into — and control of — all their voice, data, fixed, mobile, local and global communications costs wherever they do business.

"Our global scale, footprint and reach, combined with our ability to offer our clients a complete suite of services across the IT infrastructure – is unmatched in the marketplace," said Dawson.

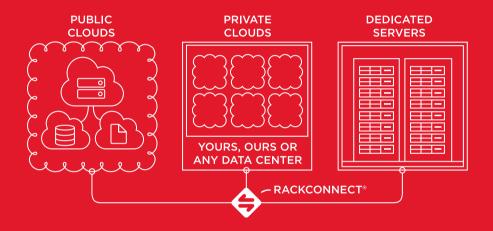
Dimension Data's placement in the MQ for COPS is significant because:

- Its focus on clients and the delivery of ICT services is being recognized in the market
- This recognition validates that its approach to account and programme management, and its continued commitment to enhancing technical expertise resonate with its clients
- The business decisions and continued improvements it is making as a company every day are delivering a positive impact. In addition to service portfolio expansion and enhancements, it has launched Uptime V3, a proactive approach to supporting its clients' IT infrastructure; and formed an International Business Unit focused on streamlining multinational project pricing and service delivery

RACKSPACE ASIA HYBRID CLOUD IS HERE

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- Performance and reliability Industry leading SLAs with army of experienced engineers
- Free from vendor lock-in powered by OpenStack®, the open source cloud computing platform
- **Build what you need** Mix and match public cloud, private cloud, and dedicated servers to create your ideal environment
- 24x7x365 Fanatical Support trusted, committed experts to architect and run cloud and applications



Learn more about our hybrid solution:



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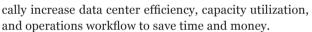


Being able to view assets, resources used, and operational status – from the lowest level in the power chain to the highest level – in an integrated fashion helps provide increasingly cost-effective operations support for certain aspects of data center management.

Hence, data center infrastructure management (DCIM) was created to extend the traditional data center management function to include all of the physical assets and resources found in the Facilities and IT domains.

DCIM software provides clear visibility of all data center assets along with their physical connectivity and relationships to support the monitoring, reporting and moves-adds-changes of data center infrastructure components.

A good DCIM architecture has the flexibility to adjust to user needs; makes it easy for the user to do their job; and offers the right components necessary to solve real-world data center issues. DCIM software can dramati-



A comprehensive DCIM solution comprises components that provide:

- Enterprise-class monitoring for data collection, thresholds and alerts to accommodate tens of thousands of nodes in the data center white space – including intelligent rack PDUs, floor PDUs, remote power panels, busways, UPS, CRACs and environmental sensors
- Complete inventory information from racks, servers, storage, network connectivity, power chain and applications
- Multiple ways to visualize and report data center assets easily and quickly, with information presented in a dashboard, a report, a floor plan or rack elevations
- Workflow management using processes and relationship mapping to create workflows and understand the capacity at every point in the power chain and relationships between devices within the data center what is connected to what and the impact when changes are to be made quickly and easily

Open integration capabilities such as APIs that enable the integration between third-party change management databases and ticketing systems

Raritan's dcTrack is an award-winning, easy-to-use DCIM solution that provides real-time information about facilities, networks and IT. dcTrack clearly visualizes the infrastructure to help data center and facilities managers manage placement of IT equipment, make informed capacity management decisions, and keep track of data center assets accurately during any relocation, collocation or consolidation project. dcTrack is easy to implement, integrate, administer and operate, providing a fast ROI.

Customer quotes

"With dcTrack we have an up-to-minute picture of capacities in all our data centers in terms of power, space, networking and cooling," says Joseph Keena, manager of Data Center Operations at Shands Healthcare. "As a re-

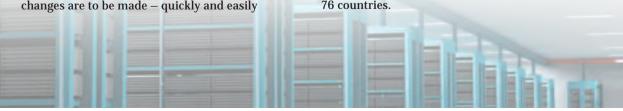
> sult, we are able to track our data center capacity more accurately and assess our infrastructure needs for the future."

> "dcTrack helps bring order to the complex maze of data center infrastructures," says Keith Bott, service manager

for Equipment & Facilities at British Airways. "When you have a dynamic and complex environment with many moving parts and interdependencies, you look for solutions to help make it easier to manage. Raritan's dcTrack does that by providing us with an easy way to get accurate information on our infrastructures,"

"The data we collect from Raritan DCIM has become a pillar for our data center — we don't just use it; we depend on it," says Scott Jeppsen, data center specialist at Simplot. "Raritan's DCIM solution will allow us to monitor our complete data center to improve uptime and be more efficient with our resources, including our people and energy."

Raritan is a proven innovator of energy and infrastructure management solutions for data centers of all sizes. In more than 50,000 locations worldwide, Raritan's intelligent rack PDUs and sensors; DCIM and energy management software; and access and control products, are helping IT and facility directors, managers and administrators to increase power management efficiency, improve data center productivity and enhance operations. The company has offices worldwide serving customers in 76 countries.



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Best enterprise unified threat management solution: Check Point Software Technologies

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Check Point Software Technologies' unified next-generation solution prevents advanced threats and malware attacks and enables an organization to easily and confidently control access to millions of web sites.

R77, the latest release of its award-winning Software Blade

Architecture, includes the ThreatCloud Emulation Service, Check Point HyperSpect performance enhancing technology and the Check Point Compliance Software Blade. The solution blocks application-specific attacks, botnets, targeted attacks, advanced persistent threats, and zero-day threats.

The ThreatCloud Emulation Service protects organizations against zero-day attacks by instantly blocking malware

in email attachments and files downloaded from the web. Its cloud-based service model works with any existing infrastructure and a monthly package based on incoming file volume for the whole organization, reduces operational overhead.

In R77, the Check Point HyperSpect technology delivers a real-world next generation firewall performance boost of up to 50% on existing appliances. In addition, the Check Point Compliance Software Blade is a fully automated continuous compliance monitoring solution that enables network administrators to easily identify potential security breaches and vulnerabilities and receive practical guidelines on how to remediate security weaknesses and improve security. It provides more than 300 security best practices, and continuous assessment of compliance and security posture across Check Point Software Blades lead to actionable recommendations to improve security and compliance.

Best next-generation firewall: Check Point Software Technologies

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The Check Point Next Generation Firewall (NGFW) extends the power of the firewall beyond stopping unauthorized access by adding IPS and application control protections. The firewalls come in many sizes and offer throughput of up to 110Gbps.

The dedicated firewall also

integrates management for better and faster understanding of security events. Offering proven gateway security with industry-leading firewall performance, it has been deployed by more than 170,000 customers worldwide and 100% of Fortune 100 companies.

Leveraging patented stateful packet inspection, the Check Point NGFW is capable of up to 40Gbps of firewall

throughput with real-world traffic mix.

User and machine identity awareness balance security and business needs by enabling granular policy definitions per user and per group, and seamless integration with Active Directory. It is ideal for protecting environments with social media and Internet applications.

Integrated into Check Point Software Blade Architecture, the Check Point NGFW allows centralized management, logging and reporting via a single console, and automatic activation of Firewall Software Blade on security gateway systems.

The Check Point NGFW has consistently achieved top scores in NSS Labs' NGFW group tests. This year, Check Point's solution received NSS Labs' third consecutive 'Recommend' rating while achieving the top score in security effectiveness and management.

Best application performance management solution/ tool: Compuware

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The dawn of an applicationcentric business world has made IT services a priority. On top of a reliable Applications Performance Management (APM) solution, business owners need to ensure that their IT infrastructure delivers an optimized browsing experience for users, regardless

of their access points.

Consistency and speed are primary influencers of consumer experience, especially when it comes to mobile applications. Recent Compuware research has shown that 30% to 50% of users access applications from their mobile devices, and 75% of these users are frustrated by problems such as slow mobile site experience and mobile app crashes and

bugs. Hence, the challenge is to quickly identify and solve the root cause of these problems before users encounter an unsatisfactory experience.

To achieve this, Compuware APM for Mobile monitors all customer touch points, identifies bottlenecks before they become an issue, integrates the many dimensions of mobile applications into a single solution, provides support for Hybrid Apps, and most importantly, offers a holistic understanding of user experience and performance.

Compuware APM for Mobile takes the guesswork out of mobile performance management and addresses performance issues within a single integrated solution. For businesses, that makes the transition from web to mobile a seamless affair and enables them to innovate faster than their competition.



Your employees, your partners, all across Asia, all united in the cloud.

When you can't meet in person, you can now just meet in the cloud. With Unified Communications As-A-Service (UCaaS), you can connect with your entire network, on all your devices, at anytime of the day or night from just about anywhere.

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Best cloud services provider: CITIC Telecom CPC

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CPC consolidated and virtualized their internal IT infrastructure to adopt cloud computing as a platform for deploying its non-critical applications such as network and application monitoring. The company migrated 95% of both its critical and non-

critical applications to the cloud six months later.

According to CEO Stephen Ho, this move showed positive results in deployment speed, cost and system performance. From the project, staff gained valuable experience in deploying and operating a cloud environment, as well as valuable skills to overcome different types of technical challenges.

From the deployment, the company realized that cloud computing services could complement its Multiprotocol Label Switching Virtual Private Network (MPLS VPN) and Managed Security services. CPC foresaw a huge business potential not only in the market then but also its potential, not only for existing customers but also for customers ranging from small to medium businesses (SMBs) to enterprises.

"Cloud computing was a natural evolution of our services," Ho says. "IT allowed us to provide a 'total' solution to customers, remove any headaches for them and allow them to focus on their business."

CITIC Telecom CPC's SmartCLOUD solutions, built on a reliable cloud computing infrastructure, enable companies to substantially reduce costs and increase flexibility, while maintaining enterprise-grade security, privacy and availability. SmartCLOUD solutions help enterprises of any size to rapidly deploy any scale of services over the Internet or a private network cost-effectively.

Customers can dynamically allocate key resources to address business tasks, including on-the-fly allocation of processing power, memory and storage, all protected with highly secure connectivity to isolate applications and ensure data integrity.

CPC's SmartCLOUD solutions help businesses increase agility and competitiveness by scaling out IT across four areas:

 Improve operational efficiencies by reducing the deployment time of IT infrastructure and long-term administrative cost

- In early 2010, CITIC Telecom Facilitate a reliable and secure network environment for collaborations between branch offices and mobile workforces
 - Further enhance application performance and data transmission over WAN or Internet
 - Provide a series of networking and security solutions, connecting businesses with external parties

Since security is a top concern for customers, CITIC solutions emphasize security services and leverage international security best practices, according to Ho. "This is made easy with our TrustCSI services seamlessly integrated with cloud computing services," he says.

Ho also points out that while cost cutting is still important, it is no longer the only driver for cloud adoption these days. "As a service provider, we are often caught in between," Ho says. He explains that dropping prices for a service is harder than doing so for a product. The former requires service providers to drive efficiencies to contain cost so they can transfer cost benefits to the customers.

Ho adds that this is where the customer's choice of the right partner goes beyond looking merely at prices. "Accumulative experience, staff expertise and the right third-party certification all count. At CPC, we have established industry standards while working on internal and partner certifications as part of our management philosophy."

Next-generation services

Hence, CPC's products and services become 'service building blocks' for customizing IT solutions to meet diverse business needs. These integrated solution building blocks are proven feasible using the company's production proof-of-concept. The result is that the customer will have a production-ready solution during the engagement process, which eases deployment later.

CPC is a total infrastructure provider of Compute, Security and Connectivity. As an infrastructure technology partner, the company's research and development teams continuously explore technologies that can deliver the best performance and the most secure environment to customers.

Understanding customer projects are application specific, CPC works closely with various ERP, CRM, FIN, etc., application providers to develop deployment best practices – leveraging its services building blocks – for its customers.



Winner – Intelligent Building Infrastructure, NetworkWorld Asia Reader's Choice Product Excellence Awards

Thank you

READERS' CHOICE
PRODUCT EXCELLENCE
AWARDS 2013



CommScope is honored to be voted by NetworkWorld Asia readers as the inaugural winner of the Intelligence Building Infrastructure category for the NetworkWorld Asia Reader's Choice Product Excellence Awards 2013. Your selection affirms our continued efforts to provide cutting-edge solutions that address and resolve the needs of our customers.

As a vital industry contributor, CommScope plays a distinctive role in virtually all the world's best communication networks. We create the infrastructure that connects people and technologies through every evolution. CommScope solutions position us at the forefront of high-performance infrastructure.

Our innovative solutions are designed to address the most demand in infrastructure challenges in healthcare, education, telecommunications and finance. As technology evolves, our goal remains the same: to help our customers create, innovate, design and deploy — faster and better. We accept this distinguished award with gratitude and will remain committed to providing the trusted, strategic advice that enables our customers to connect and communicate in today's global marketplace. Thank you for your vote of confidence!

POWERED BY

SYSTIMAX®

www.commscope.com

Best network optimization/ acceleration: Riverbed Technology

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

The performance of private, public, and Internet-based networks is critical to every globally connected enterprise. Wide area networks (WANs) - and now hybrid networks – connect people, applications and data to make business possible.

As data centers continue to transform with the increased adoption of cloud and the emergence of software-defined, hyper-converged networks, performance will continue to be a critical component to a successful data center strategy. That's why more than 23,000 organizations worldwide depend on Riverbed Technology to understand, optimize and consolidate their IT infrastructure so that they can run faster and more efficiently with improved

application performance and service delivery.

In 2013, Riverbed was named the leader in the Gartner Magic Quadrant for WAN Optimization Controllers for the sixth consecutive year. The addition of a new hardware appliance and upgrades to the Steelhead software have enabled Steelhead WAN optimization solutions to accelerate a broader range of enterprise infrastructures and expand IT control and ease of management, including smaller branch offices, cloud infrastructures, SaaS applications, and locations served by hybrid networks.

Riverbed provides a broad portfolio of performance solutions - WAN optimization, application-aware network performance management, application performance management, application delivery controllers, and more - enabling organizations to increase productivity and efficiency, enhance business resilience and control costs.

Best data center application delivery/ availability: F5 Networks

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

F5 makes the connected world run better. All top 10 Asia Pacific companies on the Forbes list, all of the top 20 financial services organizations, and all of the top 17 telecommunications service providers in Asia Pacific use F5 solutions.

With the rapid growth in

voice, data and video traffic, organizations deploy F5 BIG-IP solutions to ensure application performance, security and availability in the data center and in the cloud. F5's BIG-IP solutions give organizations the flexibility they need to respond to business changes through modular application delivery services that can be added as needed.

Organizations depend on applications to support their operations and drive revenue. Whether an application is delivered from the cloud or data center, to a desktop or a mobile device, the demand for excellent user experience is universal.

The F5 BIG-IP Application Acceleration Manager (AAM) improves user experience by applying multiple optimization technologies at all layers of the application delivery chain.

BIG-IP AAM enables application delivery to be integrated with web performance and WAN optimization technologies. Traditional technologies like SSL offloading, compression and caching combine with image optimization, video delivery optimization and data deduplication to reduce complexity in the data center.

Best data center virtualization/ unified computing solution: VMware

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

VMware vCloud Suite is a private cloud infrastructure solution based on VMware vSphere. vCloud Suite allows IT to achieve cloud space, provision applications in minutes instead of weeks, and deliver the right availability and security for each application with policy-based governance.

vCloud Suite is the first step for IT organizations towards the software-defined data center architecture.

VMware also offers additional software-defined data center products that can further extend the capabilities of a vSphere private cloud environment. This architectural approach delivers virtualized infrastructure services (compute, network, security and availability) with built-in intelligence to automate the on-demand provisioning, place-

ment, configuration and control of applications based on defined policies.

The vCloud Suite 5.5 integrates the following products:

- VMware vSphere: Compute virtualization platform with policy-based automation
- VMware vCenter Site Recovery Manager: Automated disaster recovery planning, testing, and execution
- VMware vCloud Networking and Security: Networking and security with ecosystem integration for a virtualized compute environment.
- VMware vCloud Automation Center: Self-service and policy-enabled cloud service provisioning
- VMware vCenter Operations Management Suite: Integrated, proactive performance, capacity, and configuration management for dynamic cloud environments
- VMware vCloud Director: Virtualized data centers with multi-tenancy and public cloud extensibility

Tap your data centre's full business value.

StruxureWare for Data Centres software helps cut energy and operational costs across facilities and IT.

The right information at the right time

With Schneider Electric™ StruxureWare™ for Data Centres software suite, you easily can access the right information at the right time to make informed decisions related to resource optimization, energy management, and operational efficiency.

Data centre visibility = business vitality

Our pioneering data centre infrastructure management (DCIM) software provides complete visibility across your enterprise — from the building level down to the server. The result? CapEx and OpEx savings through better planning and operations, proactively protected system uptime, and reduced energy use. What's more, our software services optimize performance throughout the data centre life cycle.

See energy waste to manage it

With our StruxureWare for Data Centres software suite, you can monitor and track where your company's energy goes (and potentially is wasted) throughout your data centre — from facilities to your IT room. You can turn this energy insight into energy savings, as well as both enterprise and environmental sustainability. This robust view makes your data centre a strategic business asset.

Business-wise, Future-driven.™

EtruxureWare

Software engineered with your business in mind:

- > Obtain real-time resource and capacity information to support business decisions.
- > Get the most out of your data centre for CapEx and OpEx savings.
- > Improve energy efficiency and, in turn, cut energy costs across IT and facilities.
- > Have historical and real-time metrics and performance reporting at your fingertips.

99.999%

50 - 60%



What is our current data centre risk profile?

StruxureWare for Data Centres software provides full visibility across IT and facilities so you can proactively respond to system risks to achieve highest availability and business uptime.

30%



Can we cut data centre physical infrastructure costs?

We can save up to 30% in data centre physical infrastructure costs over 10 years through better resource and energy management.



How can I more predictably spread out data centre CapEx?

Our end-to-end data centres with software yield 10 – 20% initial CapEx savings.

How can we cut enterprise-wise operating costs?

Integrated Schneider Electric data centres with software cuts total life cycle cost up to 13%.

13%



How can we quickly

Reduce reserve power and cooling capacity by 50 – 60% and optimize resources through informed decision making.



APC™ by Schneider Electric products, solutions, and services are an integral part of the Schneider Electric IT portfolio.



Download the FREE white paper #150 "Power and Cooling Capacity Management for Data Centres" (Worth \$175) and enter to win Samsung Galaxy Note 2!

Visit www.SEreply.com Key Code 53567m

Schneider Electric

Best intelligent building infrastructure: CommScope

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Intelligent buildings call for a comprehensive infrastructure solution that lets them operate and interoperate as needed, where needed. With many diverse systems in play, a truly universal medium is needed to realize new efficiencies. enhanced securities and greater operational savings.

The IP backbone is what brings it all together and makes it work seamlessly - and the imVision solution from Comm-Scope offers the power, flexibility and simplicity you need to deploy intelligent building infrastructure for maximum benefit, allowing you to:

- Ensure tighter security throughout your building
- Locate devices and spot problems quickly

- Make changes easily
- Simplify audits and compliance measures
- Increase operational efficiency, uptime and productivity
- Monitor and control all sites globally from one location
- Recoup investment costs through reduced downtime, energy and maintenance costs

imVision's built-in intelligence maximizes the efficiency of your network infrastructure and provides visibility into every aspect of its operation. CommScope offers singlesource simplicity and confidence for copper, coaxial and fiber networks, with comprehensive solutions that cover every inch of the network and manage every system for greater efficiency and productivity. From lighting to environmental systems to security and more, CommScope and its Intelligent Infrastructure Solutions bring every system into efficient, cost-effective harmony.

Best enterprise server system: IBM

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



for big data, analytics and cognitive computing are providing unprecedented insights into opportunities, threats and efficiencies. Armed with real-time analytics, organizations are able to discover new revenue sources; develop personalized customer

experiences such as personalized medicine; and improve the communities in which we live.

IBM Power Systems come with solutions and systems software that deliver the computing power to process and manage analytics that drive these business transformations. Built as an open platform supporting industrystandard Linux, AIX and IBM i, Power Systems provide

Next-generation applications flexibility and choice for organizations of all sizes to turn massive volumes of raw data into actionable business insights.

> Supporting these new workloads is a foundation designed for 99.997% availability, zero vulnerability (with hardware-based encryption and real-time compliance alerts), and the ability to scale to 1.3M IOPS.

> IBM Power Systems enable organizations to complete both historical and real-time processing of big data, run more than 1,000 concurrent queries and deliver real-time analytics.

> They are also designed to process and derive business insights from both structured and unstructured data. They equip organizations with the capability to manage and analyze growing volumes of unstructured data, such as video, images, text, social and mobile content quickly and effectively.

Best data center hosting/colocation services: Equinix

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Equinix Inc, the global interconnection and data center company, provides customers with world-class global colocation services that help them safeguard mission-critical data with the highest levels of security and operational reliability in more than 950 available networks globally.

Equinix boasts the largest number of networks of any data center provider and allows direct interconnection with every major global network and ISP to satisfy peering, transit and traffic exchange requirements. Businesses leverage Equinix's platform in 31 strategic markets across the Americas, EMEA and Asia-Pacific. In 2013, Equinix expanded its facilities in Japan, Singapore, Sydney and Shanghai. Its

key customers in the region include: Amazon Web Services (AWS), Yahoo, Nokia, IBM, Bloomberg, IKEA and Oracle, among others.

Equinix recently established eight Solution Validation Centers globally, including Singapore and Sydney, with four more locations planned in 2014. The centers provide a demo and proof-of-concept test environment for prospective and existing Equinix customers to assess and measure the performance of application platforms and new deployments from secure, connected and globally distributed International Business Exchange data centers.

Equinix customers and technology partners have leveraged the centers to test and validate deployments, including private, public and hybrid cloud architectures using AWS; a demo environment for desktop-as-a-service; and bandwidth on demand.

Best data center network switch/ router: Cisco

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Cisco Unified Fabric delivers reliable, scalable, agile and cost-effective network services to servers, storage and applications, while improving the user experience. It facilitates better support of virtualization and cloud services with improved staff utilization, more efficient resource

utilization (more load on servers and storage), low-latency options, lower TCO, and better resiliency and uptime, enabling the data center to do more with less. Cisco is the only vendor with server and switch platforms natively designed for integrated virtualized services.

As the leader in LAN and SAN convergence standards bodies, Cisco is the first to bring intelligent virtualization to the network, enabling service and resource access anytime and anywhere. As the only technology vendor with a common operating system across data center LAN and SAN product lines, its Cisco Unified Fabric is the networking pillar of the Cisco Unified Data Center, bringing unified storage, data networking and supporting application performance, application delivery, automation and services delivery.

This approach enables solutions such as business continuity and virtualization, as well as low-latency high-performance computing, while providing energy-efficient, resilient and secure data centers.

Best enterprise wireless and mobile broadband infrastructure solution: Cisco

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Service providers are seeking new ways to accommodate the surge in mobile data traffic, smart portable devices and things coming onto their networks. As mobile devices proliferate, so do the opportunities to strengthen relationships with customers by delivering a

superior subscriber experience. The intelligent network provides granular, real-time visibility and updates across every level of the network-transport, and across user, access, core and cloud.

Cisco Unified Access provides IT with the platform it needs to adapt to rapidly changing business, technologies and user expectations, with unified policy, management,

and network devices for a single network infrastructure across wired and wireless networks and VPNs.

An intelligent network platform that enables new connected experiences and new operational efficiency, Cisco Unified Access is the business foundation for bring-your-own-device (BYOD) and the Internet of Everything (IoE), designed to intelligently connect people, processes, data and things.

The Cisco Unified Access solution delivers an integrated and simplified intelligent network platform that enables IT to spend less time running the network and more time focusing on innovations that can differentiate and transform the business. This is achieved by bringing wireless control and wired switching into a single infrastructure as well as centralizing the visibility and deployment of wired and wireless devices in a single view with a centralized policy that spans the entire network.

Best unified communications and collaboration: Cisco

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Cisco Unified Communications products unify voice, video, data and mobile applications to help an organization's employees, customers, suppliers and partners communicate quickly and easily. The Cisco open architecture supports all relevant industry-standard protocols, codecs and interfaces. It

currently allows for the widest compatibility with existing environments, while featuring state-of-the-art innovations that add significant value. The network-based Cisco architecture accommodates a wide variety of service connections and optimizes the experience dynamically. The architecture supports the entire solution in the cloud and is designed to overcome remote-host latency and quality problems.

Cisco Hosted Collaboration (HCS) solutions also deliver

applications in a virtualized platform through cloud-based unified communications and collaboration applications. Applications are delivered within a highly secure, cloudready, virtualized platform under a centralized management system. Additionally, Cisco HCS partners can deliver fixed-mobile convergence capabilities that extend business features to any mobile handset and clientless capabilities for legacy mobile phone platforms.

TelePresence is a key element of Cisco HCS that fully supports the Cisco HCS architecture and is available in a choice of deployment options, including public, private and hybrid cloud.

In addition to the value collaboration brings to customers - such as better teamwork, faster decision making, and the ability to work from anywhere – the Cisco HCS delivers a unified user experience, optimizes resources and improves IT and business agility.

Best storage infrastructure: NetApp

Want to keep customers happy? Try giving them a little flash

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



Business never stops. In today's fast-paced market landscape, the well-worn idiom 'time is money' rings true more than ever. Every second of continuous business operations translates into revenue: but a second of slowdown or downtime is bad news for brand reputation and loyalty.

No organization is immune to this basic law of failure and success - from enterprises and growing businesses to financial institutions and government agencies. Recently, a state financial system suffered a four-day outage, resulting in 13,400 delayed payments which totaled US\$232 million in losses.

3 steps to increase customer loyalty

Enterprises today must look for innovative approaches to ensure application non-stop operations for customers while operating at optimal capacity. The growing adoption of flash technology in storage environments is proving to be an important factor in addressing customer impatience.

Flash technology offers higher application performance at lower hardware investments and power consumption. With no moving parts, flash storage is considered more durable, reliable and energy efficient. Hence, enterprises can meet higher application service levels with lesser resources. In particular, flash deployments are one of the primary methods for alleviating I/O bottlenecks in dense virtual environments.

Flash can keep customers coming back for their solutions and services by delivering three critical benefits:

Lightning-quick response times

In this "fast-food" age of ours where information is easily available via Google and purchases can be made from a foreign country at a button click, customers' window of tolerance has dramatically reduced. These customers expect to get what they asked for, when they request it, in the shortest time – instantly, if possible. Furthermore, with the availability of mobile devices, applications must be able to withstand fast-paced transactions such as mobile in their preparations to capture new market share. banking and online purchases.

By an intelligent combination of flash and traditional media that provides performance and high availability at an economically viable price, enterprises can improve application response and system throughput, increase efficiency and reduce cost.

Faster replication and recovery

As services grow in volume and complexity, enterprises must take care of a large amount of data and applications. Running IT services on traditional spinning media leaves the enterprise vulnerable to reliability issues. And since the mean time before failure of solid state media has increased, business confidence in flash to deliver long-term value and operation is steadily increasing as well.

Intelligent customer analytics

Organizations that wish to gain an edge today must be proactive in understanding customers deeply and targeting their needs strategically. With the enormous volumes of data in enterprises today, there is no better time to discover new insights. However, enterprises must have the right platform and adequate capacity to analyze and turn these data into actionable plans.

A prime example of the impact of flash technology in analytics is in SAP HANA. Leveraging flash-based storage and high-speed RAM, the SAP HANA platform processes vast amounts of transactional, analytical and application data in real-time. With it, enterprises can make important business decisions on-the-fly, allowing products and services to reach customers faster.

As a matter of fact, best-of-breed providers are collaborating to apply combinations of technicality with superior capabilities to address the toughest business challenges faced today.

The appearance of flash storage in the enterprise environment will continue to grow. As an ESG study points out, "Given that just about every storage vendor is actively promoting the benefits of solid-state, the potential that the technology will continue to ramp up over the next couple of years looks to be a foregone conclusion."

Forward-looking organizations should begin to consider ramping up flash adoption in their storage environments

E's End-to-End Data Center Portfolio









Splice Frame

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600 x 300mm (24 x 12in) footprint 8640 ribbon fiber splices 1440 single fiber splices

Optical Raceway FF MAN HDA EDA

FiberGuide

N



- Organizes and maintains fibers for better management and long-term reliability The most flexible, robust, and complete system in the industry
- Fiber Entrance Cabinet Available in 2x2, 2x6, 4x4, 4x6, 4x12 and 4x24 dimensions

Fiber Entrance Cabinet (FEC) Ideal as a demarcation point for service providers The FEC provides splicing, administration and storage for outside plant (OSP) and intrafacility Superior cable management and protection cables (IFC)

W

Termination Blocks EF NO. HDA

4

11 11 11

- 100, 200 and 300 pair pre-terminated Category 5e
- 8 and 20 pair Category 6_A solutions 8 and 25 pair Category 6 solutions
- "look-both-ways" testing capability without the removal of any wires
- Optical Distribution Frames MANIEDA

Frame



Core VSM



Vertical Switch Management

- The Core VSM system is designed to manage high Supports the deployment of core switches in standard Server Racks, minimising the usage of expensive white density patching for core switche cards, such as Cisco Nexus 7010 ches with vertical interface
- Clean representations of the switch ports and ease of access



High-Density Fiber Panel MAN EDALEDA

Mounts to any 19-Inch equipment racks

 Easily configured for 1/10/40/100GbE connections Effectively manages 1536 LC Duplex (3072 Fibers)

Compatible with Q4000, Q3000, TFP and RMG fibe

Q3000/4000 High Density Fiber Panel

Port counts are easily matched to major active equipment manufacturers switches or chassis blades

Pre-Terminated Fiber Optic Solutions

MPOptimate 12 & 24 Fiber Trunk Cabling

 Guaranteed upgrades for 3 generations of active equipment: 10/40/100GbE Exceeds Insertion and Return Loss performance of

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- standard MPO solutions
- Reduced diameter, round cables for easier cable management and routing



Storage Area Management (SAM)

Storage Area 🔤

1, 2 and 4 RU Chassis

 Q4000 managed connectivity solutions LC-to-LC, MPO-to-LC and MPO-to-MPO Blades

Fiber Patch Panels MAN HOATEDA

- RMG Fiber Patch Panels
- Cost effective and high density rack and cabinet mount enclosure for patching and splicing fibers
- Pre-terminated MPO-to-LC cassettes for rapid





solutions are designed to deliver greater agility, efficiency and TE's high-performance fiber, copper and managed connectivity

resiliency for today's ever-changing data center infrastructure



UCP MDA HDA EDA

- Universal Connectivity Platform (UCP) Enables mixing and matching copper and fiber in a single patch panel
- Enables future-proofing and easy upgrades with superior modularity
- Supports 48 copper or duplexed fiber (96 fiber) terminations in a single 1 RU patch panel

Angle Left/Right Fiber Panel MAN IDARDA



 Angled MPO-to-LC cassettes allow for easy access to individual ports

B

- Termination and splice capable
- 1, 2 and 5 RU panels

rtion Area (EDA)





Pre-Terminated Copper Cabling Solutions Sigma-Link Category 6A solutions

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Copper Cabling Solutions MANIEDALEDA

- Category $\mathbf{6}_A$ U/UTP, unshielded solutions Category 6_A F/UTP and S/FTP, shielded solution
- Guaranteed 10Gbps performance to 100 meters





- 24 and 48 port counts Q2000 managed connectivity solutions













6







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- 600mm and 800mm wide equipment cabinets
- High airflow perforation
- Modular design for easy adjustment and access







 Color-coded and keyed assemblies simplify installation and changes System supports 16, 32, 48 and 64 port blades Manages up to 1152 fibers (576 ports) in 2 rack units Designed for vertical blade SAN Directors (switches)

www.te.com/enterprise-asia

www.datacenteragility.com

Best storage-as-a-service: EMC

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

EMC VMAX Cloud Edition is a self-service, enterprise-class cloud storage delivery platform • that accelerates time-to-value for private companies and service providers building private, hybrid or public cloud.

The VMAX Cloud Edition is ideally suited for customers

that require a multi-tenant, "as-a-service" delivery platform to deliver self-service for capacity, performance and business continuance to users or tenants in a charge-back or show-back consumption model.

By investing heavily to provide its customers and service provider partners best-in-class infrastructure to deliver best-in-class cloud services, the EMC VMAX Cloud **Edition:**

Reduces operational costs by automating day-to- visioning storage traditionally.

day operational tasks and speeding self-service ac-

- Accelerates cloud with multi-tenant metering and chargeback reporting, a predictable linear cost model, and pre-configured Bronze, Silver, Gold, Platinum and Diamond service levels
- Improves service levels and business agility with tier-1 enterprise class storage, business continuity, and flexibility to change service levels to achieve the right service level outcomes

Indeed, by automating day-to-day storage tasks, the VMAX Cloud Edition accelerates the design and implementation of "as-a-service delivery" up to 4.5 times faster than any other multi-tenant storage today. Further, a database administrator, business application owner or virtualization manager - with no specialized storage skills - can provision storage faster than a storage expert pro-

Best backup/ archiving solution: EMC

provides companies with the speed, efficiency and flexibility they need to solve their biggest data protection challenges. Its leading backup and archive solutions:

- Reduce backup times by 90% and recover reliably from purpose built backup appliances - ensuring worry-free protection
- Reduce backup storage by 10-30x and management time by 81% – delivering a 7-month payback
- Accelerate virtualization and moves to the cloud
- Empower application owners while retaining central control of backup

The EMC Data Protection Suite allows customers to simplify the purchase, implementation and use of tem and be up-and running in under 2 minutes.

EMC is the world's largest data protection company. It EMC Backup and Archive software while lowering costs and protecting investments. The Suite includes Avamar, NetWorker, SourceOne and Data Protection

> Recent EMC Data Protection Suite enhancements deliver deeper integration with Data Domain systems and EMC storage, optimizations for virtual environments and greater visibility and control for the protection of enterprise applications. For example, EMC Avamar 7 can now direct all major data center workloads - including file system and NAS/ NDMP backups - to Data Domain systems, and be protected by the combined solution. Avamar also allows a virtual machine to be booted up from a Data Domain sys-

Best big data solution: Hitachi Data Systems

READERS' CHOICE PRODUCT EXCELLENCE **AWARDS 2013**



NETWORKWORLDASIA

Big data brings two key challenges to the IT organization today - ensuring security and availability of applications while optimizing performance disparate hardware components and devices.

Hitachi Data Systems (HDS) addresses both these issues

through integrated and secure solutions that ensure costs savings while driving high performance and efficient operations throughout the organization.

With the HDS Unified Compute Platform (UCP), which consists of the UCP Select and the UCP Pro products, HDS allows IT teams to seamlessly integrate servers and storage and networking infrastructures, then

add a virtualization layer on which they run enabling and application software.

The UCP Select is an application-optimized reference solution that helps to accelerate the most popular applications in desktop and server virtualization, collaboration, database, data warehousing and business analytics. The UCP Pro is an integrated turnkey solution that allows organizations to quickly manage and administer a virtualized cloud infrastructure.

Balancing security with the ability to easily share data and collaborate across a range of devices is equally simple with the Hitachi Content Platform (HCP) Anywhere. With HCP Anywhere, end users simply save a file to their HCP Anywhere folder and it will automatically synchronize to their registered devices and be available via a web browser.

Best secure mobile/ remote access solution: Symantec

READERS' CHOICE **PRODUCT EXCELLENCE AWARDS 2013**



NETWORKWORLDASIA

Symantec App Center is a user-friendly mobile application and content management solution for corporate data on mobile devices. It offers an advanced technology that provides a unified platform to address diverse enterprise mobility needs and enables user productivity on

mobile devices, regardless of ownership while protecting enterprise data. Users have convenient enterprise grade security on a per-app basis, without requiring any source code changes or SDK embedding. App Center is available in on-premise and SaaS versions.

Key features of Symantec App Center

- **Application and content management** Drag-and-drop app and content deployment with intuitive administrative web portal user interface.
- Integrated device management

Easily perform Mobile Device Management (MDM) actions like lock, wipe and dissociate device, limit device functionality and set/restore password complexity rules.

Application and content protection Remotely wipe applications and content from compromised devices and enforce user policies such as user authentication, re-authentication, local storage access and off-line access.

Reasons why customers like this product

- App developers don't need to be proficient in mobile security: Enterprise application development teams can focus on what they do without concerning themselves about security implementations like authentication, key management and data loss prevention.
- Support BYOD without compromising security: Gain all benefits of user satisfaction and capital cost reduction without sacrificing corporate security or end user privacy. Apply policies on corporate data without monitoring personal apps and data.

Best disaster recovery/ business continuity solution: Symantec

Veritas Cluster Server from Symantec keeps businesses' most important applications running non-stop with no manual intervention, and automates disaster recovery plans with predictable results and efficiency. Cluster Server provides a foolproof solution for detecting risks to application availability and automates the recovery of applications for high availability and disaster recovery.

Key features of Veritas Cluster Server

Continued availability of mission critical applications during downtime

Automates monitoring that ensures a fast database and application failover within a data center or multiple remote data centers in the event of planned and unplanned downtime.

Faster recovery of failed applications running in • VMware environments

Failover applications without a VM reboot to standby

healthy virtual machines, for application recovery from any failure without impacting VMware features.

Compatible across all physical and virtual operating system platform

Integration with Virtual Business Services (VBS) provides faster recovery and minimal downtime for applications composed of multiple components running on different physical and virtual tiers, adding resilience to business services.

Reasons why customers like this product

- Ensures confidence that the recovery plan will work if a disaster were to happen.
- Increases administrator efficiency through enhanced visualization, automation of common reporting tasks, centralized operational control for global applications.
- Reduces training and labor costs, as well as software licensing and support by using the same clustering tool across all physical and virtual operating system platforms.

Best security-as-a-service: Symantec

Built on Symantec's proven, globally managed and highly reliable infrastructure, Symantec Managed PKI Service delivers a proven and trusted solution to secure missioncritical interactions. It also reduces the cost and complexity associated with in-house PKI and focuses enterprises on delivering solutions, instead of infrastructure.

Key features of Symantec's Managed PKI Service

Reduces PKI cost and complexity

Managed PKI Service's cloud-based approach lowers the cost and complexity of PKI by reducing the hardware, software, personnel, training and maintenance expenses

associated with deploying traditional in-house PKIs.

Maximizes deployment flexibility

Broad, cross-platform client support for certificate-based applications, including Windows, Mac, Android and iOS, from a unified platform.

Reasons why customers like this product

- Reduces cost so that businesses can better channel their resources to concentrate on delivering value to their clients.
- Scalable and proven KPIs mean that enterprises of any size and sector can depend on Symantec to reliably secure mission-critical interactions.

Best server infrastructure management: Hitachi Asia

READERS' CHOICE PRODUCT EXCELLENCE AWARDS 2013



NETWORKWORLDASIA

Hitachi Job Management Partner 1 (JP1), an integrated system management suite, provides comprehensive support of customers' system operations. Hitachi JP1 consists of 3 modules — Desktop Management (IT Compliance), Availability & Integrated Management (Monitoring) and Job Man-

agement (Automation). Each product caters to diversified operational needs – protection of valuable IT assets, efficient management of the utilization status of the entire system, and running of jobs according to a schedule, respectively.

Key features include:

 Monitor Activity: JP1 allows users to check the usage of PCs – prohibit unauthorized operations on user PCs and monitor the time taken for particular tasks while keeping

- a trail of file operations. When employees are aware that they are being monitored, they are less likely to utilize the system for personal use.
- Control Dissemination: JP1 is equipped with the ability to control the use of removable media (external HDD, USB memory, etc.) to significantly reduce information leakage.
- Control Usage: By detecting and preventing the use of unauthorized software, JP1 screens software for vulnerabilities before installation and maintains them appropriately. Passwords that users enter are screened for potential weaknesses to prevent unauthorized use of PC by third party.
- Control Connection: Only authorized PCs are allowed access to corporate networks to limit potential disruptions and reduce liability. JP1 can detect and block any unauthorized PC attempting to access the network immediately.

Best server/ Network operating system: Microsoft

READERS' CHOICE PRODUCT EXCELLENCE AWARDS 2013



NETWORKWORLDASIA

Enterprises in Asia Pacific are increasingly moving to hybrid and public cloud infrastructures, creating great opportunities for enterprise cloud vendors.

For an enterprise cloud provider to lead in this new era, it must fulfill the following needs and wants of its customers:

Provide best-in-class first-party SaaS applications; offer a public cloud platform at massive, global scale that supports a broad ecosystem; and true hybrid cloud capabilities with cloud mobility.

Microsoft is committed to deliver on all three, allowing businesses the choice to move as they wish across public,

private and hybrid cloud infrastructures.

At the heart of Microsoft's cloud vision is Windows Server, which runs on about 75% of all x86 server systems. According to IDC, Microsoft's virtualization solutions are the fastest growing in the Asia Pacific market at 30% year-on-year in Q2 2013 compared to the market growth of 1%.

Windows Server 2012 R2 and System Center 2012 R2, launched in October 2013, enable hybrid cloud computing; seamlessly bridge physical and virtual networks for hybrid connectivity and flexible workload mobility between enterprises and service providers; support high-availability scale-out storage; and ensure that end-users not only work on the device of their choice, but also have access to resources while maintaining compliance.

Best contact center solution: Avaya

READERS' CHOICE PRODUCT EXCELLENCE AWARDS 2013



NETWORKWORLDASIA

Major changes are taking place in today's sales and customer service environments. New demographics, new technologies and new forms of communication and interaction – including mobile and social networks – all require a significant shift in customer service strategies.

The Avaya Aura Customer Experience Management solution offers a comprehensive suite of scalable solutions for dynamic contact center environments requiring sophistication and differentiation in the care offered to their customers. It provides skill-based routing of voice, email, web chat, fax, SMS, scanned document, outbound calls and support for video contacts. It provides everything

required to deliver world-class contact center capability including flexible call treatments, real-time displays and comprehensive management and reporting functionalities. Contact center managers are empowered by the tools, which provide them the agility to deliver unique and unprecedented care to their customers. The rich scripting language supports multifaceted contact routing and treatment decisions based on combinations of real-time conditions and external data.

When combined with the Avaya Aura Workforce Optimization, Customer Experience Management is further enhanced through a balancing of efficiency and effectiveness, converting the contact center into a strategic resource. This analytics-driven offering lets organizations capture, analyze and act on information to improve workforce performance, customer interactions and customer service processes.



For the third consecutive year, Gartner has positioned **Dimension Data** as a **Leader** in the **2013 Gartner Magic Quadrant** for **Communications Outsourcing** and **Professional Services**.

Dimension Data continues to **extend its market-leading position** in the **ICT services industry**.

Compiled by Gartner analysts, the Magic Quadrant examined 18 vendors of IT services for business communications systems worldwide, employing two main evaluation criteria. These include 'ability to execute' and 'completeness of vision'.



Scan the QR code or read the full report by visiting http://www.dimensiondata.com/copsmq



A Magical Awards Night!



READERS CHOICE



Rising star – Network security solution: Barracuda Networks

RISING STARS AWARDS 2013



The Barracuda Web Application Firewall is a complete and powerful security solution for protecting web applications and websites from malicious attacks.

The solution quickly protects web servers from data breaches. and websites from defacement. without administrators waiting

for clean code or even knowing how an application works.

The Barracuda Web Application Firewall blocks an everexpanding list of sophisticated web-based intrusions and attacks that target applications hosted on web servers and in the cloud.

This capability is important because with hundreds of lines of code to check – and vulnerabilities often subtle

and hard to find – a serious data breach is often the first sign that a web application has problems.

The Barracuda Web Application Firewall scans all inbound web traffic to block attacks, and inspects the HTTP responses from the configured back-end servers for data loss prevention.

The integrated access control engine enables administrators to create granular access control policies for authentication, authorization and accounting without having to change the application. Onboard L4/L7 load balancing capabilities enable organizations to quickly add back-end servers to scale deployments. Application acceleration capabilities also ensure faster delivery of the web application

The Barracuda Web Application Firewall can be used to securely deploy applications of any size.

Rising star - Communication & collaboration: ShoreTel

RISING STARS **AWARDS 2013**



NETWORKWORLDASIA

ShoreTel, the leading provider of brilliantly simple unified communications (UC) platforms - including business phone systems, applications and mobile UC solutions - launched its awardwinning ShoreTel Dock in May. The industry's first businessgrade docking station transforms

iPhones and iPads into desk phones when paired with ShoreTel Mobility, fusing the convenience of mobile devices with the power of a business communications system.

With the simple and clean design of the handset, dial pad, speaker phone and audio controls, users intuitively slide their ShoreTel Mobility-enabled iPhone or iPad into

the ShoreTel Dock for instant access to the comfort and call quality of a business desk phone.

Once conferencing applications are added, users can enjoy a UC experience – utilizing voice, instant messaging, presence and conferencing on a device that they already know and love.

Finally, the ShoreTel Dock's single power adaptor automatically keeps Apple handheld devices charged - ensuring a seamless BYOD experience for the mobile generation.

Meanwhile, the number of new ShoreTel end-user customers in Asia doubled in the 12-month period ended June 30, 2013. The company's strong growth across Asia has led to an increase of 17% in licenses sold year-over-year during FY13. The company also grew billings to distributors by 69% year-over-year.

Rising star – Data center appliance/ tool: Ixia

RISING STARS AWARDS 2013



NETWORKWORLDASIA

Effective security requires monitoring of all segments across the enterprise network for potential information theft and malware transmission. The rise of advanced persistent threats and their use of long-term, deep penetrations into networks to steal intellectual property and

valuable customer data means that perimeter-only defenses are now inadequate.

However, it's simply not cost effective to deploy security tools on every network segment, especially in a multi-building enterprise campus. And even if it were, administering and collecting all of the relevant security data would be a daunting task.

To solve these challenges, the Ixia Anue ControlTower network visibility architecture provides easy scalability and rapid deployment of multiple segments for centralized, intelligent monitoring. The first product of its kind, it solves some of the biggest problems facing network security professionals in large enterprises – increasing scale, ensuring flexible deployments and monitoring the entire network.

Ixia's ControlTower architecture employs a hub-andspoke model to monitor enterprise campus environments and data centers with top-of-rack and end-of-row switching deployments, gathering interesting traffic from across the network to a centralized 'farm' of cost-effective, highcapacity security tools for inspection. This model minimizes the number of interconnect trunk links so that network administrators can monitor segments across an enterprise network without additional overhead.

Rising star – Information virtualization & analytics: Tableau Software

RISING STARS **AWARDS 2013**



data analytics into the hands of the common user by making it easy for them to see and understand data.

With a few clicks. Tableau Desktop users can dig deep into their data by visualizing and creating interactive dashboards.

They can publish the results to Tableau Server – a browser-based business intelligence application. Executives and business users can interact with the published material via their web browser anytime, anywhere.

There is no scripting required and users can grow their deployment as needed. Tableau Server installs via the web

Tableau puts the power of and is operational in about 20 minutes. It also integrates with Active Directory so setup is simple and familiar to most people. This cuts data-to-analysis time tremendously, allowing for timely and more informed decision making.

> Tableau is for anyone with data and questions. People can access information, perform analysis and share results without assistance from technical specialists. Tableau customers have diverse skill levels and work in all kinds of organizations, including Fortune 500 corporations, SMBs, government agencies, universities and non-profits. People are tapping on Tableau for use cases such as increasing sales, streamlining operations, improving customer service, managing investments, assessing quality and safety, studying and treating diseases, and improving education.

Rising star – Networking solution: Ruckus

Ruckus smart Wi-Fi serves KLIA's facilities

RISING STARS AWARDS 2013



NETWORKWORLDASIA

The Kuala Lumpur International Airport (KLIA) handles more than 34 million travelers annually. Many of them use the airport's Wi-Fi network to access the Internet with their smart mobile devices.

KLIA had to upgrade its legacy Wi-Fi system, which was unable

to cope with the increased demand for bandwidth and which was plagued by spotty coverage and slow connection speeds.

However, the airport authority had to consider the challenges posed by the huge terminal buildings, high ceilings

and areas constructed with Radio Frequency unfriendly materials, such as glass, steel and concrete. The Wi-Fi network also supports ground handling, aircraft maintenance and cargo handling applications.

KLIA selected the Ruckus ZoneFlex indoor and outdoor smart Wi-Fi system for its high-capacity connectivity, long-range coverage and consistent performance. It deployed 70 ZoneFlex indoor access points and 32 Zone-Flex outdoor access points, which were centrally managed through a Ruckus ZoneDirector Smart WLAN controller. The consistency, reliability and pervasiveness of wireless coverage throughout the airport were reflected in the Airport Service Quality audit, which noted a remarkable decline in Wi-Fi-related complaints.

Rising star – Data protection solution: SafeNet

RISING STARS **AWARDS 2013**



NETWORKWORLDASIA

SafeNet offers a broad range of data protection solutions that enable organizations to move past silo-constrained encryption, and to centrally, and uniformly deploy encryption in a scalable manner that spans the enterprise, and allows them to effectively control their security

policies. SafeNet solutions secure databases, applications, personal identifiable information and storage in the physical and virtual data center and the cloud.

SafeNet also provides the critical management capabilities needed to effectively and efficiently enable protection across the enterprise wherever data resides. With SafeNet, organizations can apply data protection where they need it, when they need it, and how they need it – consistently and effectively.

At the core of SafeNet's solutions is the crypto foundation, which enables the creation of a centralized cryptographic platform that streamlines enterprise-wide encryption deployment, and centralizes policy and key management. Once data is encrypted, the centralization of policy and key management means that this data can pass through your systems transparently and be persistently available for decryption by authorized users. Scalable to millions of records and billions of transactions, SafeNet Data Protection solutions deliver the throughput, responsiveness and availability organizations need for vital cryptographic processing to ensure your data is secure throughout its lifecycle.

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Securing business in the era of consumerization and mobility



IT leaders discuss the changing policies and technology tools required to protect businesses today. By Chan Chee Sing

Interprises today must face the reality that the environment they operate in today is being driven by consumer trends and a need to be always mobile and connected. These trends are challenging companies to rethink the way they manage staff and technology as well as serve their customers.

People are no longer working or playing in fixed locations – to deliver content and services to people today requires sophisticated platforms that not only cater to user demands but also apply the right security measures in each user scenario.

This growth in user scenarios as well as devices at the same time attracts a whole new raft of cybercrimes, threats and data risks that businesses must

Interprises today must face the find new ways to protect themselves reality that the environment against.

Risky business

Security provider SafeNet and its partner i-Sprint Innovations recently hosted a roundtable for IT leaders in Hong Kong to discuss this difficult challenge of enabling the new requirements but trying to remain secure and protected.

Slawek Ligier, CTO of SafeNet hit on the delicate balance that is required today in facing this challenge. "We have to make sure that we balance that need for innovation but also stay one step ahead of the bad guys by leveraging the providers that have real experience in these areas of data protection and security." On the specific challenge of mobile security, Ligier predicts that the challenge will only grow more complex as both Apple and Android communities have acknowledged that security around the two platforms will be a key area of focus in the near future and that these two operating systems will be the primary targets for new malware in coming years.

Other key trends to note that will raise the threat levels are bring your own device (BYOD) and social media. BYOD, according to Ligier, is already being adopted but will undoubtedly cause security challenges to IT leaders as they need to rethink how to protect users and data on devices they may not control.

New attack vectors

Meanwhile, cybercriminals will increasingly leverage social media with sophisticated social engineering techand mine critical data.

This type of engineering has also led a new trend that Simon Leung, chairman at i-Sprint Innovations, also noted - the emergence of Advanced Persistent Threats (APT). These threats are typically created by groups, in some cases even government-related operations that continually attack a specific target, which could be an individual or a company.

These often use a variety of techniques and tools to gain access and over time gather key data which may or may not be leveraged immediately, so in many cases the threat is often undetected for some time.

iSprint is a partner of SafeNet and has a keen sense of the market in Asia, being founded in Hong Kong and now operating also in Singapore and across the region. Albert Ching, the CEO, CTO and co-founder of the company, recalled the company's early days as a provider of security technology originally to Citibank and now to missioncritical customers such as the Singapore Government and a slew of other banks: "Today, the threats have become much more complex and we are focusing our R&D to find new ways to address critical enterprise needs such

niques to gain access to key networks as cloud, mobile security and dynamic access management."

Attention on data protection

For the CIOs in attendance, the threats are very clear and have refocused the need to address data as the key asset that needs protecting. "The move to cloud and mobile today means you cannot protect the whole perimeter," said Victor Lam, deputy CIO, OG-CIO, HKSAR Government. "There are so many devices, so many ways of accessing the network, which means that protecting users is very challenging, so protecting data is all important now."

To address this data protection problem, Lam stressed the need to leverage emerging technologies such as encryption and mobile device manage-



Slawek Ligier

Hosts

Simon Leung, Chairman, i-Sprint Innovations Albert Ching, CEO, i-Sprint Innovations

Slawek Ligier, Chief Technology Officer and CVP of Product Development,

Raymond Yeung, Senior Regional Sales Director, Asia Pacific, SafeNet

Participants

Victor Lam, Deputy GCIO (Consulting & Operations), HKSAR, OGCIO Kelvin Har, CIO, Securities & Futures Commission

Raymond Lee, Head of IT, Hsin Chong Construction Group

August Chan, Director of Technology, Mobile Trading Services, CASH Philip Leung, Director of IT Services, Chinese University of Hong Kong, IT Services Centre

Sidney Hui, Assistant General Manager, Group IT, HKR International Gurunathan Venkatachalapathi, Head - Compliance & Security, AEON Credit Service (Asia)

Patricia Wong, CIO, HK, China, Vietnam and Korea, Baker & McKenzie Michael Ma, Head of IT, Hospital Authority

Dennis Lee, Head of IT Risk & Control, Asia, Nomura International Charles Mok, Legislative Councillor (IT), Legislative Council Patrick Raths, former IT Director of Swiss Re for Asia, Independent IT

Ted Suen, Head of IT, MTR Corporation

Moderator

Consultant

Sheila Lam, Editor, Questex Asia

ment. But also just as important are the policies and governance around users and access to data.

"It's critical that we in the government and in businesses work across all fronts – people, technology, process and governance - to ensure that we are protected," he added.

Fellow CIOs such as Patricia Wong at Baker & McKenzie agreed that data protection is an on-going battle right now and it is only getting more serious. "In the new era of mobility, the threats and risks on security rise. Therefore, we also need to engage employees in the effort of fighting this security battle," she said. "Our firm has been rolling out security awareness programs to employees on a regular basis to enable them with knowledge to protect themselves and their data." she added.

'No' is not an option

The massive growth in mobile devices has been driven by a consumer hunger for better and faster smartphones. This has swamped IT managers with users demanding BYOD for work purposes.

A number of CIOs concurred, adding that policies in this area will inevitably change as CEOs and other business leaders themselves will demand the change even before other users do. "How can you say 'no' to CEOs when they ask for iPhone access?"

"CIOs and IT leaders must find ways to be able to say 'yes' and then deliver that capability in a safe and secure manner - that is the really difficult challenge today," said Michael Ma, head of IT, Hospital Authority.

Former director of IT for Swiss Re in Asia, Patrick Raths, agreed that IT leaders must embrace BYOD. His experience at Swiss Re was initially very positive: BYOD was implemented around two years ago with iPhones and iPads accessing key data but not what would really be termed 'sensitive' or 'critical' data.

The challenge arose when data being accessed is 'critical'. Companies must

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find new ways to deal with this data when leveraging BYOD environments. It requires new policies and intelligence in the technology to properly secure this critical data when it is being accessed by certain devices or from certain locations.

Raths noted that once technologies mature in intelligence and capability, the bigger challenge remains with the human being. "We still face the problem of individuals who abuse and have malicious intent to take data, plus the individuals that genuinely create issues by accident," he added.

"The question is: how do we get our users to care about company data the same way they do with data on their own devices?"

Block at your own peril

Ma added that users and individuals must begin to take personal responsibility for their actions. "People must be made aware of the consequences on their team, the company and on society if they neglect their duty in enforcing basic security practices."

On one extreme is the Chinese University of Hong Kong. Philip Leung, director of IT services at the university, described his campus with over 20,000 students, 7000 staff and many more thousands of alumni. "These are all my clients and they expect access to our data and services to some degree, but in most cases, the devices they are using would be their own," Leung said. "In reality, we have no way of influencing them on how to use it and what kinds of additional apps that they have to install into their devices. So it is a very challenging job."

Kelvin Har, CIO at the Securities & Futures Commission, operates at the other end of the policy spectrum where regulators demand maximum security. He also stressed the need for balance. "You cannot block everything so that it becomes meaningless to even have a mobile device," he said. "You must make users aware of the potential [risk] exposure and that everyone

must be responsible for information security."

He added that there are continued campaigns to emphasize this and the IT department conducts random surveys with users and assess their awareness and adoption of the key guidelines.

At MTR Corporation, mobile applications have been adopted widely within the organization and BYOD is also a policy that has been enabled. Head of IT, Ted Suen, noted that the usual mobile device management, data loss prevention and usage polices have all been adopted to properly protect and govern users. All confidential and critical data is encrypted, whether it is internal or external information, and awareness programs are also regularly conducted.



Albert China

The MTR tests users with occasional 'phishing' tests where random users are selected to see if they follow policies when faced with threats. If users fail, they are retrained so that awareness is continually tested and maintained.

Focus shifts to apps management

Management of these new mobile applications has also become a key area of attention, observed Leung at iSprint. "We may see a lot of talk about the devices but this is only the beginning — what's also important are the applications and the trend towards mobile application management (MAM)," he said.

MTR has recently implemented this and it forms part of the overall mobile application management lifecycle. It has formed a mobile application task force combining IT, business heads and legal experts to devise mobile application development and management policies and put in place technologies to enforce the governance.

"Companies must be wary of the apps that are created, the data that is delivered and how users will interact with these apps," warned Suen.

Executives from both iSprint and SafeNet also warned of the trend where 'fake' applications are emerging in the mobile space — much like the way malware and add-ons were injected to cause problems and possible data breaches on desktop computers.

Risk and reward calculation

The question of how much to invest in securing these applications against security issues also arose.

A common practice is to do calculations around risk and possible cost of data breach or exposure and put a figure to what is required to mitigate that risk and exposure. But that isn't always the fool-proof answer, Raths noted.

Ligier believes the answer lies in allround consideration of factors that include risk, exposure, cost and also areas like benefit and value to customers and stakeholders.

With something like BYOD, if the productivity and flexibility gains are significant, then justifying investment and accepting risks are not an issue. One example where the risk is deemed worth accepting is with banking and finance.

"With banks in the US, for example, you will see they are not getting too aggressive on multifactor authentication on services as they worry about consumer convenience and ease of use," said Ligier. "Now there will be some risk of fraud, of course, but the losses would be borne by the bank, and they can justify this by valuing the convenience of the customer over the risk."

"Now whether that is right or wrong can be argued in many ways, but the point is that justifying these actions is often based on more than just cost,' Ligier stressed. "Whether you are a small or large company, cost isn't the only factor in determining security investments."



The changing face of business intelligence

- from static data to dynamic insights

By Khoo Boo Leong

n what Gartner calls 'The Digital Industrial Economy', organizations will be challenged to harness the huge amounts of data created internally and externally for effective and timely business decisions.

"Digitalization exposes every part of your business and its operations to the confluence and integration of cloud computing, social media, mobility and Big Data as well as the Internet of Ken Soh: Alongside the bread and Everything," says Peter Sondergaard, senior vice president at Gartner and global head of Research. "It is how you reach customers and constituents; how you run your physical plant; and how you generate revenue or deliver services."

A company founded on this trend is Tableau Software - whose software empowers every employee within an organization to leverage visual data analytics. "We can get analytics to everyone throughout an organization," says Chris Stolte, chief development officer and co-founder of the company. "Our users are typically outside of IT. We're allowing the person who is processing student admissions, to the person who is coordinating logistics, or even a healthcare professional, to ask the questions and to quickly analyze, visualize and share information."

Early October, Tableau Software hosted a CIO roundtable session to discuss enterprise IT challenges arising from a fast-growing deluge of information in a data-driven economy. Participants were mainly from three industries where Big Data has an obvious impact – healthcare, education and logistics.

sightful discussion on important chal-

lenges, ranging from managing disparate data types to data privacy and ownership issues to the evolving role of the CIO. Below are excerpts of the discussion, which was moderated by Victor Ng, S E Asia bureau chief of Questex Asia:

Victor Ng: How does Big Data impact your organization now or in the near

butter issues - infrastructure provisioning, BYOD, application development – big data is emerging rapidly as a highly strategic thrust of organizations by way of internal and external analyses. For example, internally, it is common for educational institutions to harness big data technologies for learning and academic analytics; and externally, for enterprises to understand their market standing via social media listening and sentiment analy-

Suresh Kumar: Data is a great challenge for us because we are in logistics - spanning warehousing, distribution and other functions. We have various streams of data coming in - people using Skype or sending WhatsApp messages, SMSes and emails. So, consolidating these data and converting them for business is a big challenge.

Indranil Mukherjee: I am part of International Standards Certifications and specifically look after quality and global IT certifications. While we are vendor agnostic, we understand a lot of things from vendors like Tableau and come across their solutions in ISO certfications/audits and often use That paved the way for a lively, in- their features in mitigating controls or best practices. We see Big Data as both

an opportunity but also a challenge in terms of security and compliance.

Tan Hoon Chiang: The challenge with Big Data is to figure out how to use it effectively. We have a lot of research at the National Institute of Education (NIE) that involves quite a large amount of information, not just digital data but also a collection of multimedia, such as videos and audio which may be stored on tapes.

Dr Sherman Ong: The National Cancer Centre Singapore (NCCS) has a mission to be a multidisciplinary cancer treatment center. That includes oncologic imaging as a service. We do X-ray, MRI, CT and PETscans, as well as mammogram. We also have surgical oncology, radiation oncology and chemotherapy, which is [part of the | medical oncology department. A breast cancer patient may seek opinions from the surgeon, from the medical oncologist and from the radiation oncologist. The daily tumor board review is one function or channel where information comes together from the imaging, case notes and all the investigative reports presented by multidisciplinary specialists to decide on the best protocol for the specific patient concerned. We have a different approach for each stage of cancer. Each patient will require a different protocol. At NCCS, we have more than 100 oncologists and thousands of protocols. So, Big Data becomes a relevant issue.

Victor: What are your specific challenges with Big Data?

Suresh: We have customer officers in network operations centers (NOCs) who receive inputs 24/7

Participants:



Ken Soh CIO, Temasek Polytechnic



Tan Hoon Chiang CIO, National Institute of Education (NIE)



Suresh Kumar Assistant IT Director (Asia Pac), Agility Logistics



Indranil Mukherjee Director, International Standards Certifications Pty Ltd/ Singapore ISC Pte Ltd



Dr Sherman Ong Chief Quality Officer/ Chief Development Officer, Singhealth/ National Cancer Centre Singapore



Hosts: Sales Consulting Manager, Asia Pacific, Tableau Software



Hosts: Chris Stolte Chief Development Officer, Tableau Software



Moderator: Victor Ng SE Asia Bureau Chief, QuestexAsia

from customers across the country or across the region. The data they receive include faxes, email, Skype, WhatsApp and phone calls. So, consolidating the disparate information into a proper form is a challenge. The other thing is follow-up. Consolidating or standardizing the information is taking too long. And there's a lot of documentation in logistics nowadays. We are putting too much manpower there and that creates other problems like office space, [software] licenses and workstations.

Ken: I feel the data owner's [role] is very important alongside governance and other basics. Depending on the set-up in the organization, there may be internal alignments to be addressed. For example, data owners may have concerns sharing specific information. Data analytics is not just the front end but a bigger chunk of the story is actually at the back end. How do we architect the data? Who is going to facilitate sharing? For the same reason, TP had initiated deeper reviews into our backend databases and campus-wide business requirements; coupled with the evaluations of business analytic tools for campus-wide deployment.

Chris: That reminds me of Cornell University in the US. They started out with each school in the university not sharing data with other schools. But they started to do self-service analytics. The business users began looking at the data. As they realize the value of the data and [how sharing can lead to] better decisions, they went from very siloed to a sharing, almost cross-functional analytics group.

Hoon Chiang: We have the Personal Data Protection Act effective next year [in Singapore] so we are looking into it seriously. Most of the information we collect are personal information. The moment people are aware of their

rights, it will be difficult to gather theinformation we need for analytics.

Indranil: We've seen the Singapore government sector growing exponentially, in terms of data, just like everywhere else. As data grows, the need to understand how to work with big data and cloud computing, key trends in IT, increase. An example is Singapore's G-Cloud, probably one of the largest federal clouds in the region. Therefore. there is a need for both vendors and roundtables like this to explore the things that we can provide to the customers from a data privacy perspective and around cloud computing.

Ken: The Singapore government and the Infocomm Development Authority of Singapore are encouraging the sharing of [non-classified] information with the public so the public can develop useful applications. For that,

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SPECIAL REPORT

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one example is for organizations to explore the possibility of interfacing with and contributing to the OneMap platform for location-based services; creating and embedding pedestrian or indoor routing information into the map. Alongside such information sharing, interfaces and APIs could be developed and then be released to the public. This, I believe, would spur the development of an ecosystem in which premise owners could contribute details of building data; and embedding them into the overall map.

Victor: How do you see the role of the CIO changing?

Ken: When I was appointed Chief Data Officer two or three years ago, I could see the [prevailing] mindset then perceived the role as a backburner's job. But today, there's so much emphasis on data as one of the most important strategic assets of an organization. In TP, we have data of about 1,700 staff and 17,000 students amalgamated over the last 23 years. To manage the data alone is certainly a humongous task that calls for a well-balanced governance and management framework to be deployed in a highly systematic approach.

Hoon Chiang: For the education sector, we are doing research so it's a natural progression to Big Data. We are still trying to leverage technology to help the organization to advance. So, there's really no change in the CIO's role. But then, the CIO's mindset has to change because we cannot [be rigid with job scope] anymore. The CIO could perhaps be the personal data protection officer or the Chief Quality Officer.

Chris: Facebook is a customer we work with a lot. I guess half of the company could be data analysts or data enthusiasts although they have different job titles. To make sure they're using

best practices, they created an internal Facebook page where everyone can post what they're doing around data analysis and get the conversations going so the groups can work together. They made sure people knew how to do analysis right. You need to establish policies.

Sherman: In healthcare, specifically NCCS, we do not have a Chief Information Officer but we have a Cancer Informatics Chief, who is specifically responsible for data collection and cancer informatics. We also have an IT director because we are supported by [healthcare technology provider] IHiS. For the longest time, our cancer informatics [officers] and biostatisticians use only SPSS and spreadsheet, which suffice. We have a group of analysts handling data for each cancer type. Sometimes, they have to plough through all the case notes, reading them and stratifying cancer data for various cancer types. It's pretty man-

Victor: Who actually does the analysis within the organization?

Ken: The business people own the data and they know what they need best. The CIO office would probably be able to facilitate the provisioning of useful tools for them. Once the business users are trained to use the tools, they can then add the configurations they need and define the analytics. More and more, the CIO would become a facilitating agent in such area, unless in specific analytics that call for deeper technology implementations and customized programming.

Sherman: Who analyzes the data depends a lot on the purpose. Throughout a corporation, different levels of people analyze data differently. The CEO actually also analyzes data. It's just that he may get a PA or an analyst or someone else to do the analysis for him. It also depends on who's reading them. Is this for public consumption or internal circulation? We have

KPIs from Ministry of Health (MOH). Each of these KPIs is expected to be measured over a three-month period. Every year, the MOH also conducts a patient satisfaction survey. They look at many KPIs such as waiting time, healthcare facilities, physicians and nurses' performance, accessibility and so on. The MOH consultants collect the data and do their analyses accordingly.

Below are excerpts of Tableau Software's description of its differentiators in response to several questions from the participants.

TC Gan: One of Tableau's biggest differentiators is making analytics available to any executive, not just the data scientist or the people that build SPSS models. If you build something in a model and churn out numbers, it's very difficult for a data scientist to explain that to a layman how the result is derived. But if you can visualize it in a scatter plot and see where the correlation is, the picture speaks a thousand words to the people you want to communicate with.

Chris: Most companies I interact with have multiple databases; they've got Teradata but also MarkLogic for the unstructured document data; and they've got Hadoop because they want to scale out to more data; and then there's a bunch of data on spreadsheets. Tableau connects these different data sources directly so you can create one dashboard for all sources. Another differentiator is the speed of getting insight. An IT user who [has used analytics tools] before can get his or her work done 10 times faster. And time is money.

The roundtable discussion clearly highlighted the opportunities for CIOs and IT leaders to rethink or reinvent their roles in a dynamic and highly competitive business world. To that end, Tableau has lighted up the path from traditional business intelligence to immediate and valuable insights via visual data analytics, without the hype or tech hurdles.





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Caught between mobility's rock and hard place By Thornton A May



high-potential millennial told the CIO at a bigname pharmaceutical company during her exit interview that she found the work environment toxic. Her main complaint was that the enterprise did not allow use of the modern consumer technologies and applications that she perceives as comprising her personal and professional identity. This is mobility's rock: People want the interface, the ease of use, the "cool" factor, the freedom and the functionality of consumer technology in the workplace.

Recently, about 100 CIOs sat mesmerized as two cleancut, well-groomed and impressively articulate young men demonstrated an exploit that breached two smartphones (iOS and Android). This is mobility's hard place: Smartphones don't meet enterprise security requirements.

All CIOs today find themselves caught between the two.

Educate, educate

I have long contended that the best cyberdefense begins and ends with an educated user, accelerated deployment and empathetic IT action. While infosec can't fix stupid, it can play a major role in eradicating ignorance. At a recent CISO Summit, I bumped into Wombat Security Technologies, a company founded by computer science faculty members at my alma mater, Carnegie Mellon University. Wombat offers an innovative approach to getting time-obsessed executives to better appreciate the implications of bad security behavior.

But what enterprises really need is to turn mobility's rock and hard place into a value quarry. To do that, IT and the business together must create high-value mobile capabilities at the pace of business opportunity. This is not as impossible as it seems, though it does require ending the occupational apartheid that characterizes most large enterprises today. Professionals who know everything there is to know about security, technology deployment, mobile

app development and the future needs of future customers must join together in creativity-enhancing ready rooms. There they must conceptualize, design and prototype capabilities designed to delight employees and/or customers.

Must-read

A must-read for those who seek to understand and benefit from the mobile phenomenon is Adam Greenfield's 2006 book 'Everyware', which challenged the historical limits of IT's purview - locations inside the enterprise. Greenfield, who went on to be Nokia's head of design direction for user interface and services, said that in the future, information will be delivered in a manner appropriate to our location and context. Every enterprise is a technology company, and every location a potential 'informated' work, play or learning space. (Informating, a term coined in 1988 by Harvard Business School professor Shoshana Zuboff, is the process that translates descriptions and measurements of activities, events and objects into information.) The technologies, techniques and applications that make this possible are 'everyware'. But everyware is not just a geographical concept. It has a temporal dimension – 'everywhen' – as well.

In Greenfield's future, we will no longer append automated out-of-office tags to email responses. We will no longer hide bad thinking and spelling behind "Sent from my mobile phone" messages. If you are still breathing, you will be expected to conform to the digital mores of the age. The 7/24, always-on economy means we are always at work, always productive and secure. And out from between a rock and a hard place.

Thornton A May is author of 'The New Know: Innovation Powered by Analytics' and executive director of the IT Leadership Academy at Florida State College in Jacksonville.

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Maybank Singapore invests in data center, mobile payment

MAYBANK SINGAPORE has signed a S\$55 million (US\$45 million) IT contract with Dimension Data Singapore and NTT Singapore to upgrade its IT infrastructure to improve service reliability and customer user experience, and ensure that it is well positioned to capitalize on future growth opportunities.

Maybank Singapore's head of IT and Virtual Banking, Lim Kuo Siong said: "The IT infrastructure of a bank powers its entire operations and is a crucial aspect in ensuring that we provide the very best services to our customers. This investment will see the bank's current infrastructure transformed into a world-class IT operation with more reliable, 24x7 banking service for our customers."

This investment is an important step in furthering Maybank's journey towards becoming a regional financial services leader. It also reinforces the bank's commitment to the Singapore market and paves the way for further investment and transformation of business applications.

Lim also emphasized that Maybank's top priority is its customers. "We are constantly seeking out efficient services and better ways

in which we can deliver improved end-user experience. Maybank needed an advanced data center and IT operations to ensure that we would be closely aligned to the business vision and growth, and support the bank's operations with improved business resiliency, reduced compliance and operational risk and enhanced operational

"By harnessing the latest technological advances, we can increase our network's effectiveness and ensure maximum system uptime so that our customers can conduct their banking transactions seamlessly and securely at any time, and anywhere in the world. This will also bring about cost and operational efficiencies through infrastructure virtualization and consolidation." he said.

Person-to-person mobile payments

Maybank Singapore has also recently launched Maybank Mobile Money, said to be the first personto-person mobile payment service in Singapore that allows a person to send money to anyone using a mobile number.

The mobile app, developed by

Tagit, enables person-to-person payments, such as the splitting of bills and taxi fares, payment of fees to small businesses including private tutors and sports coaches, and payment for purchases conducted through social media.

Maybank's online banking customers can now pay anyone, anytime, by sending money directly to a Singapore-registered mobile number. The funds can then be collected via any Singapore bank account.

The Maybank Mobile Money service is available as part of the Maybank Mobile Banking App, which was launched in 2012 on the Tagit Mobeix platform and is available in both the Apple App and Google Play stores.

Given the increased usage of social networks and video among smart phone users, and Singapore's top five ranking for app usage, Maybank saw the opportunity to further innovate its digital services. "Consumer behavior is changing rapidly, aided by newer technologies," said Lim. "With the growth of Singapore's smart phone and tablet penetration, we see a greater reliance on our trusted devices for daily tasks, including financial transactions."

Vietnamese bank reaches new clients with smarter computing

ACCORDING TO THE State Bank of Vietnam, only 20% of Vietnam's population holds bank accounts, while the country's labor force is over 50 million. At the end of 2011, just 14% of transactions were noncash. On the other hand, young Internet-savvy consumers are a fast-growing group in Vietnam, which is creating demand for new online and mobile banking services.

Saigon Hanoi Commercial Joint Stock Bank (SHB), a leading commercial bank in Vietnam, has turned to IBM Systems and Software to streamline business processes across its IT infrastructure and enable broader client reach through new online and mobile banking services.

To tap this tremendous growth potential in retail banking, SHB has been expanding rapidly, growing to 5,000 employees at 317 branches, including two in Laos and Cambodia. In addition to its traditional

full-service banking experience for individual and corporate customers, the bank is looking to launch new online and mobile-enabled services. As part of this initiative, SHB also designed a special offer branded 'S-Double Account' - comprising a variety of new online services including payroll services, credit card insurance, loan applications and overdraft protection to clients.

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"SHB places special emphasis on the role of technology in transforming operations and enabling growth, especially after the important acquisition of Habubank in 2012. Our rapid growth in recent years caused an exponential increase in the data we operate with," said Nguyen Van Le, CEO of SHB. "We realized that if we want to launch innovative services to new client segments, while at the same time adhering to compliance regulations, we have to be able to manage much more dataintensive transactions and analyze that data in real time to improve customer service."

As part of SHB's business strategy "Competition by Differentiation", IBM provided SHB with a solution composed of IBM Power Systems servers, IBM System Storage and

IBM Tivoli software. The solution helped SHB streamline its IT infrastructure management and consolidate data flows, and provided the bank with a single view of clients and data. By automating several pieces of the financial process, the bank was able to launch its "S-Double Account," together with some new online and mobilebased services, such as loan application, appointment booking and bill payment.



Investment giant accelerates data while saving US\$60,000 a year on bandwidth

PRUDENTIAL INVESTMENT Company Australia (PICA) is currently on an aggressive acquisition path, looking to double its size over the next few years. With more than 500 staff at 25 locations from Port Douglas to Melbourne, PICA generates substantial amounts of critical data and replicates up to 600GB of data each day between its production and disaster recovery (DR) sites. At present, the company holds about 20TB of data.

However, when technical services manager Neal Krempin joined PICA, he found that hourly backups between the company's data center site in Ultimo, Sydney, and the DR site in Port Melbourne often failed to complete on time, exposing the company to the risk of serious data loss.

"It quickly became apparent that we were having some issues getting all the data down to our DR site in Melbourne effectively," said Krempin. "We run NetApp's Snap-Mirror SAN-to-SAN replication and it worked quite well, but I found the process had to be monitored very closely to make sure each snapshot did not exceed the given timeframe. We run hourly backups, and when the images failed to get through in time we would end up with a serious backlog. Sometimes I arrived on Monday morning to find a 24-hour queue of data had formed – it was like peak-hour on George Street."

Realizing the need to streamline PICA's backups, Krempin looked into increasing the company's WAN capacity. Quotes for 20-30Mbps of added bandwidth came in at more than US\$5,000 per month, so he began to explore other options. He invited NetApp and Silver Peak consulting firm, IT Consult, to assess the problem. Steve Parsonage from IT Consult recommended a Silver Peak software trial, which he was confident would solve PICA's off-site

replication performance problems.

"I quickly found that Silver Peak's software-based solution fit into our VMware virtual structure very well, since it is also built on a virtual platform," added Krempin. "Silver Peak would allow us to speed up our WAN link and save us from having to invest in extra hardware, as well as saving on additional rack space, power and cabling."

Previously, PICA's WAN only achieved about 18Mbps on a 20Mbps link. After deployment of Silver Peak software, PICA now reports speeds of up to 100Mbps – an improvement of more than 500%. PICA also benefits from Silver Peak's network memory capabilities that de-duplicate data down to a transfer size of about 170GB. Krempin is confident that the Silver Peak software will allow him to continue accelerating backups and replication traffic efficiently despite the projected increase in data flow.

Flash, cloud help Revion harness 3.6PB of big data

REVLON, a leading beauty products company, underwent a massive IT transformation earlier this year, aiming to inject simplicity, agility, and cost efficiencies throughout all levels of its business.

On average, Revlon manufactures and distributes millions of beauty products each year to more than 100 countries across six continents. This process involved about 3.6PB of data, which was a challenge for the company.

With NetApp's help, Revlon successfully implemented a private cloud infrastructure that increased agility and adapts to growing consumer demands, while realizing efficiency and performance gains. Revlon IT leverages NetApp to maintain business continuity by restoring or moving business processes within its cloud environment.

Zero impact

Evidence of increased agility and adaptability came during a recent winter storm that forced Revlon to move data among its data centers. The entire process was easily managed by a single employee and took less than one hour, resulting in zero impact to the business or user experience.

Through the NetApp storage foundation, which is at the core of the company's IT operations, Revlon is able to ultimately make smarter IT decisions that help fuel company growth.

"When we started our IT transformation in 2006, our overarching philosophy was to simplify," says David Giambruno, senior vice president and CIO for Revlon. "Simplification enables the speed to adapt, and speed is a competitive advantage. IT's job is to make systems work for people, rather than people working for systems.

"Leveraging NetApp as our single storage and data management foundation provides a new-found level of agility that impacts every aspect of our business. With 97% of our total compute running on our internal cloud built by NetApp, we wield the technology needed to turn data into information. Ultimately, that enables us to support the business and to deliver high-quality, innovative products to our consumers around the world."

Simply agile

Revlon has experienced significant data center efficiencies with NetApp that include reducing energy costs by 72%, cutting its physical footprint by more than 50%, and avoiding investments of more than US\$70 million.

Revion IT has been able to increase project throughput by 425% since 2007, reduce time to deliver projects by 70%, and complete 99.6% of projects on budget and on time.

One of Revlon's key success factors is its new model for consuming and organizing 3.6PB of data generated from tracking 660 million SKU attributes per month.

By leveraging NetApp, Revlon IT implemented a global master data system that enables the company to deploy actionable information

across its global Mobile Business Intelligence platform to business units regardless of device or location for simplified operations.

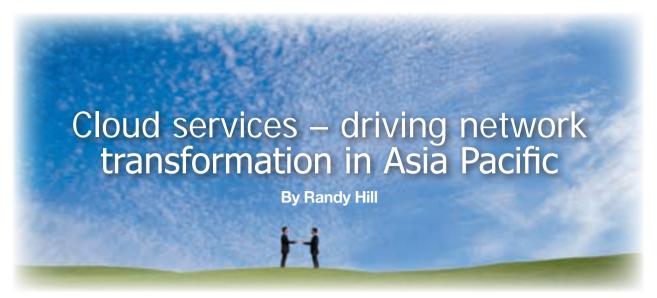
Fast net app

Revlon's private cloud infrastructure runs more than 500 applications in a virtualized environment, which supports more than 15,000 automated application moves a month. NetApp enables nondisruptive operations of these applications with 99.9999% uptime.

To keep its applications running at peak performance, Revlon requires rapid access to data across the storage area network. After trying out NetApp's Flash Accel, the company discovered considerable efficiency and performance gains that have allowed it to avoid significant hardware investments, especially when it deployed a global ERP platform on its internal cloud.

NetApp Flash Accel speeds application performance by turning server-side flash storage into a cache for storing frequently accessed data. NetApp has claimed that storing up to 2TB of frequently accessed data in server flash memory can reduce application and server latency by up to 90% and increase IOPS by 80%.

The IT agility that Revlon has achieved has led to its business success. The right IT infrastructure can create a competitive advantage. Building its infrastructure on NetApp has enabled the company to streamline operations and change the way employees think about and utilize data.



here appears to be a widely held perception that network infrastructures in Asia lag behind those of the western world, with the latter leading the adoption curve for many years. Over the last three to five years however, Asia Pacific (APAC), led by Australia, China and India, has in fact outpaced its western counterparts in technology adoption. According to Forrester Research, APAC is now the fastest-growing region for cloud migration.

APAC's continued economic growth has resulted in spiraling demands being made on networks, increasingly due to smartphone penetration. This has allowed APAC businesses to leapfrog technologies and build networks designed for the cloud from scratch. On the other hand, businesses in the West are bogged down by legacy infrastructures and are focused on deploying technology refreshes to migrate their existing infrastructures to the cloud. This trend has propelled APAC businesses to adopt cutting-edge networking technology, with implementations driven primarily by cloud services groups.

Cloud services groups – brain surgeons for the network

By definition, a cloud services group designs, architects, builds, operates and supports network infrastructures. To use an analogy, cloud services groups are brain surgeons for their clients' networks. A brain surgeon needs to have an acute, technical understanding of the brain, how it works, how information flows across it and is stored, and how best to operate on it. Similarly, cloud services architects need to possess a deep understanding of the client's network infrastructure, information requirements, and business priorities to integrate the latest technologies, build sustainable network resilience and transform the client's network.

Pole position for network transformation

With new solutions such as OpenStack and software-

defined networking (SDN) offering much promise, businesses are keen to see how such technologies can improve their networks and help them transition towards the cloud, but do not have the technical knowledge to proceed. Since each network is designed differently with respect to the specific goals and priorities of each business, the cloud services group's intimate knowledge of the client's network puts it in an ideal position to drive network transformation.

For example, many of our customers are talking about SDN and wondering how it will impact or potentially transform their networks. Based on their existing network infrastructure, our cloud services architects are able to assess the impact and cost, and identify what needs to be designed or built to transition towards a software-defined network.

A proactive services group ensures that customers are aware of the features of the various new technologies on the market and how it can impact, improve and transform their networks. Such a services group would be able to have a customer-centric view of the network and make educated recommendations on how the customer should transform.

Conclusion

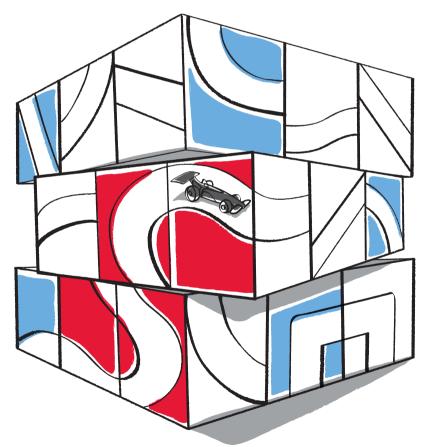
IDC Asia Pacific predicts that cloud services in APAC will deliver a compounded annual growth rate in excess of 30% between 2012 and 2016, highlighting the importance of cloud services' role in cloud adoption. This will see cloud services groups increasingly play a key role in transforming network infrastructures for organizations in the region to take advantage of new technologies such as OpenStack and SDN. After all, would you let anyone but a brain surgeon conduct brain surgery?

Randy Hill is director of APAC Services Business Group at Brocade.

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