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The one feature that sets iomart Hosting apart from its competitors is that we predicted this sea change, planned for it, embraced it and actually understand it.

We may operate in the cloud but we don't hide in it - we get the Cloud.

We've built our Cloud business from the ground up to ensure that we can personally manage and offer every layer within the Cloud Stack. And underpinning this entire strategy is our ownership and management of an extensive data centre estate and fibre network.

















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From the Editor

Pelcome to the launch issue of Cloud Hosting magazine, from the publishers of Network Computing, Storage, Computing Security and many other highly regarded specialist IT titles. At BTC we have an outstanding track record of identifying a technology sector that needs in-depth expert coverage and addressing that need with quality editorial: interviews with industry leaders, case studies from the real world, thought leadership and opinion pieces from vendors, integrators, analysts and the like - all served up in a highly digestible format that is reproduced across not just the magazine but also our e-newsletters and web presence.

Of course, everyone and his dog is talking about cloud at the moment, but at Cloud Hosting we have a very clear focus: we won't be wasting pages on 'how-to' guides for synching your mobile with the iCloud, or whether Google+ is better than LinkedIn. Our readers are senior business and IT people who have - or need - a clear understanding of the issues around cloud computing in today's enterprise.

In this issue, for instance, we look at the hybrid IT deployment model: an approach that the Cloud Industry Forum says will be around for the foreseeable future. Matt Eckersall, UK Director of Hosting, Microsoft, comments: "Because of its power to fundamentally change how businesses operate and compete, the cloud is a game changer for many companies. As we focus on people, we know that no business service you create today lives on an island. You need apps, communication, and collaboration to connect together in an agile way. To achieve this, we believe you need a comprehensive cloud - from platform, to productivity, to business solutions. It doesn't make business sense to make a one-off software decision in today's world."

We also feature some fascinating insight from Ernst & Young (EY) on how to balance the real and perceived risks of cloud services. As EY's Ken Allan says: "Cloud-based services are here to stay. IT functions need to learn to either work with them or suffer the cyber-security and financial consequences that may result in having cloud adoption take place without the input and value of IT."

This is just the start of the journey for us at Cloud Hosting magazine, and we want to keep you with us as readers - so let me know, via the email address below, what kinds of things you want to see us covering in future issues.

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RACKSPACE TRANSITION

Rackspace's CEO of seven years has retired as the web hosting company looks to transition into a cloud software developer. Lanham Napier, 42, who has led the company since 2006, was replaced by the company's co-founder and former CEO Graham Weston.

Rackspace, which leases online storage space to companies, said it would work to establish itself as a service provider for hybrid cloud, which involves storing data partly on the customers' premises.

"We'll continue to build our capability in the software, build more software that helps our hybrid cloud operate better ... we're going to continue to run more and more private clouds for companies on-premise," Weston said on a conference call with analysts.

www.rackspace.com

CLOUD MIGRATION

leading international marketing company, Brodie & Stone, has chosen ALVEA Cloud Attached Storage for secure and cost-effective cloud-based back-up, storage and file sharing. This was in response to Brodie & Stone's need to consider alternative tape back-up, file and email access ahead of its Microsoft Small Business Server 2008 becoming obsolete in 2014.

RnD implemented the two-phase project in January 2014 in a matter of weeks. First the company's email was migrated to a cloud-based hosted Exchange 2013 platform. This was followed by the migration of files and seeding of data to ALVEA Services Cloud Attached Storage and the replacement of the Small Business Server with a new Domain Controller located in Brodie & Stone's London head office. Two ALVEA Services C200 server devices were installed to provide local file access - one at the company's head office and the other at its factory in Essex. Each Cloud Attached Storage server was backed up to the cloud to allow file access from any location.

www.alvea-services.com

VDI MARKET TO GROW BY OVER 25 PER CENT



The global cloud-based VDI market is expected to grow at a CAGR of 25.51 per cent over the period 2013-2018. This is according to analysts Research and Markets who recently released their findings as part of their 'Global Cloud-based VDI Market 2014-2018' report. The report suggests that one of the key factors contributing to this forecast is the increasing need among enterprises for remote access interfaces in order to access content and data from centralised servers. It cites Dell.

Citrix Systems, VMware, Netelligent and Red Hat as some of the more prominent vendors in the VDI marketplace.

Commenting on the report, an analyst from the Research and Markets team said: "The security of the data and applications is one of the major concerns for enterprises. With many enterprises adopting virtualised computing infrastructure and hosting their data and applications over the cloud infrastructure, there is a need for security features to be incorporated as a part of the enterprise infrastructure. The VDI solution providers are providing better security features as a part of the solutions, which is leading to higher adoption of these solutions by enterprises and end-users.

"The communication networks are being enabled with data encoding, which enables secure transmission of data from one point to another. Security features are being provided independent of the underlying hardware configuration, which is another positive factor leading to higher adoption."

www.researchandmarkets.com

CLOUD SERVICES ON THE MENU FOR UK IT CONSUMPTION

The rising adoption of cloud services is fundamentally changing how British businesses consume IT, according to a new report produced by Cisco Consulting Services, in conjunction with Intel. The report found that in a majority of organisations, control of IT planning and purchasing is increasingly being shifted to lines of business (LOBs) such as HR, sales, and R&D. Their rising influence represents a marked departure from the traditional "top-down" approach, forcing IT departments to adapt.

"The Impact of Cloud on IT Consumption Models" report - based on a global survey of over 4,000 IT decision makers - suggests the United Kingdom is at a tipping point in IT spending as cloud uptake increases. While 43 per cent of funding currently comes from LOBs, 59 per cent of respondents predict that this will rise. As a proportion, the cloud represents almost a quarter of total IT spend (23 per cent), with that figure expected to rise to 27 per cent by 2016.

Given that 70 per cent of respondents believe IT planning will increasingly involve stakeholders from LOBs, and 59 per cent believe purchasing authority will also eventually reside with LOBs, the role of the IT department looks set to change. While they may once have planned, purchased, and implemented entire projects, 70 per cent of U.K. respondents believe that in the future, they will serve as "brokers" of services. With this new role comes new challenges: 77 per cent of respondents said integrating cloud services with in-house IT systems is now their main concern.

www.cisco.com/uk/ciscopowered

THE TIME FOR CLOUD EDUCATION IN THE CHANNEL IS NOW

he Cloud Industry Forum (CIF) has outlined a set of 5 triggers impacting upon small and mid-sized businesses that it believes will shape IT buying behaviour throughout 2014. Alex Hilton, CEO of CIF, said, "Following our analysis of our recent research project of 250 UK-based SMEs, and in light of wider market conditions and technical innovation, the CIF expects that the majority of UK small to mid-sized organisations will be adopting and maintaining a hybrid approach to their IT. 69% of organisations claim to use at least one cloud service, however, only 12% of firms today believe they can put everything in the cloud, meaning the vast majority will remain in a hybrid state for the foreseeable future."

To this end, the CIF has outlined their top five considerations for SMBs looking to upgrade their infrastructure in 2014:

- 1. Hybrid IT will increase as the defacto status of IT adoption across the SMB sector. As such, a key consideration for any SMB is ensuring that they can manage their IT as a whole, and therefore, capabilities for monitoring and management of IT operations become more critical in delivering an end-to-end service and will encourage more organisations to adopt IT as a managed service.
- 2. The approaching end-of-life of desktop technologies such as Windows XP and

Office 2003 will add impetus to the migration of traditional PC workloads to cloud services like Microsoft's Office 365.

- 3. The approaching end-of-life of older operating systems and solutions such as Windows Server 2003 and Small Business Server will drive a review and refresh of IT server infrastructure in the SMB sector, with many opting to retain critical services like Credentials (e.g. Active Directory), Print Management and File Management onpremise as a central service.
- 4. The constraints on Internet bandwidth for many SMB's will continue to dictate where application workloads will be run, i.e. where it is most optimal for the organisation. Those with primarily office based staff will continue core services on premise to gain LAN speed access, whilst those with more remote staff will favour cloud services (and the reality is a mix will be true in most cases).
- 5. With cash flow pressure still on staffing levels and capital expenditure, and the increasing track record of cloud based service delivery models, the opportunity for an SMB to adopt IT solutions as a managed, OpEx priced, service are increasing and shaping the evolution of the supply chain with a new breed of IT Service Provider

www.cloudindustryforum.org

NETIQ RELEASES CLOUDACCESS 2..0

LetIQ has announced NetIQ CloudAccess 2.0, the latest version of its single sign-on (SSO) virtual appliance that securely extends existing IAM processes to include cloud-based SaaS applications. With CloudAccess 2.0, IT teams can more easily extend access controls beyond the firewall to SaaS applications in order to protect sensitive data and deliver a onetouch, consistent experience for users from their desktop, laptop or mobile device.

As SaaS application adoption increases, users must manage more and more logins and passwords, creating a risk that poorly managed accounts will lead to a data breach. These disparate identities cannot be properly provisioned and deprovisioned by IT, making it difficult to meet compliance and governance requirements to certify who has access to what assets.

CloudAccess 2.0 extends the convenience and security of SSO to the cloud, helping organisations protect valuable, sensitive or regulated information. It also delivers secure yet simplified access to mobile users.

www.netig.com

CLOUD INSITE FOR VARS

utsourcery believes that resellers should now be making an urgent push to familiarise themselves with the developments of the cloud, as cloud adoption gains momentum amongst end-users. Adam Cathcart, Head of Channel at Outsourcery says: "In our experience with resellers, many of them are still unsure about how to advise customers on cloud services. This was true in the past and has improved, but the rate at which cloud adoption is growing means that resellers which are not prepared are likely to miss out on huge opportunities and can't ignore the emergence of cloud anymore.

"We recently launched our InSite partner portal for the channel. This has been designed to make it easier for VARs to sell and help select the correct cloud services for their customers and we hope that this will lead the way for resellers to feel more comfortable with the concept of selling cloud services and meeting the demands of a growing market."

www.outsourcery.co.uk

PEAK PERFORMANCE

ilver Peak has collaborated with VMware to offer its virtual WAN optimisation software to support deployments on VMware vCloud Hybrid Service. Silver Peak accelerates data transfers to the cloud and provides an ongoing LAN-like experience for cloud-hosted applications, enabling VMware vCloud Hybrid Service users to more quickly and easily transition to a public cloud or hybrid cloud environment.

VMware vCloud Hybrid Service is a secure, dedicated hybrid cloud service, however, the WAN can limit cloud performance because of the inherent network bandwidth, latency and quality challenges that persist. Silver Peak and VMware are working together to alleviate these issues and provide vCloud Hybrid Service customers with high-performance access to cloud-based resources over distance.

www.silver-peak.com



A design for life

Jeremy Powell, Director of Product Marketing at Nemetschek Vectorworks, explains how using Cloud-based design applications can lead to greater efficiency for architectural and related businesses

esign offices are constantly looking for new methods of efficiency, and they typically focus on off-loading tasks that can consume valuable time on workstations, as well as having more flexibility in communication. Thus, computing and generating drawings and models in the cloud and then offering various ways to interact with, share, and communicate the visual design and associated data is fundamental to developing integrated cloud solutions for CAD and BIM users.

CONVENIENCE, COLLABORATION, FREEDOM

Noting this demand, our company, which develops a line of CAD and BIM solutions for the AEC, landscape, and entertainment industries under the Vectorworks brand, launched Vectorworks Cloud Services and the Vectorworks Nomad mobile application in April 2012. Our goal was to provide greater convenience, collaboration, and freedom for our users to access their designs from any location, at any time. With the addition of this type of flexibility and efficiency to our users' workflows, we became a service and solutions provider in addition to a CAD and BIM software provider. As such, we actively listen to our customers and survey them regularly to learn about their ever-evolving processes. Results from such engagement help to drive our choices for functional improvements to our cloud services.

For example, our Vectorworks Nomad 2.5 release in October of 2013 included integration with Dropbox. At the time of the announcement, Chief Technology Officer Dr. Biplab Sarkar said, "The integration with Dropbox and the improved user interactions for measurement in Vectorworks Nomad 2.5 are direct results of customer feedback. When we surveyed our users, we found that the ability to use available file storage products was one of their top priorities, and their number one wish for improvement was mobile snapping."

STAYING CONNECTED THROUGH THE CLOUD

Understanding how our customers use cloudbased applications in their daily practices also helps us to anticipate future needs and evolve their workflows.

One such customer is Todd McCurdy, FASLA, Principal and Director of Landscape Architecture + Planning at MorrisTerra in Orlando, Florida. He and his firm recently partnered with CYP Studios, which has offices in both Columbus and Dayton, Ohio, on a \$2 million project to revitalise Dayton's Patterson Boulevard Canal Parkway. The project also added new landscaping, lighting, historical signage, sidewalks, and crosswalks to this historic area of the city.

McCurdy and his Florida-based team flew to Ohio at several key times while the CYP

principals met weekly with local city officials to communicate updates and get feedback on drawings and renderings. Vectorworks Landmark software, cloud computing, and a few late nights with team members on FaceTime helped them overcome the challenges of distance and separate design teams.

"There was a lot of sharing back and forth, sometimes when all of us were in our homes late at night," said Eugenia Martin, ASLA, CYP Studios' Partner-in-Charge of the Columbus office. "We successfully used Vectorworks Cloud Services to share, view, and mark up our drawings. It was very easy to collaborate and communicate electronically."

McCurdy echoed how easy it was to make design decisions together using cloud computing. "Anytime one of us made changes, the Vectorworks files automatically synchronised to our private cloud storage," he said. "Using a cloud-based workflow in this way also saved us time because, for example, we were able to push desktop processing that we needed to create renderings to the cloud."

GREATER MOBILITY AND SECURITY

Ron Kwaske of Ron Kwaske Architect in Chicago, Illinois is also realising the benefits of greater mobility, as well as enhanced security, with cloud-based applications. "Whether you are having a cup of coffee in the





morning or waiting for a client at a site, something can get done," he said. "It's just more efficient to have our files and applications available at any time, anywhere. For me, it is reassuring knowing that the data and files are there on their servers, guarded and backed up ... but, even so, most of the apps we use are also synced to our computers so there is redundancy. Thus, for us, it is also more secure to use the cloud."

While Kwaske's toolkit currently includes Vectorworks Cloud Services and the Vectorworks Nomad mobile application, the Dropbox file storage solution, the project management tool Basecamp, and the customer relationship management software Highrise, he remains open to new technology. "The existing applications continue to evolve, new ones continue to be invented, and we try to be as responsive to that as we can be." he said. "We are constantly reevaluating our needs."

He praises the ability of Vectorworks Nomad to create efficiency in his daily workflow by converting a Vectorworks model to a PDF that can be viewed or annotated on a tablet or mobile phone. "It does what a cloud-based app should do: it saves time through efficiency," he said. "The program grabs the file, converts it, and resyncs it, so I don't have to do anything. Vectorworks Nomad is an

extremely valuable tool because it is updated daily, always available, and always current."

The impact such tools have on his business is immense. "I can't quantify. It's my time. There's no way we can manually create PDFs of every page of every project every day. With Vectorworks Cloud Services and Nomad, it's done and is always there. So, it has significant impact."

Dr. Ilianna Kwaske. Ron Kwaske's wife and a principal in the firm, added that as Basecamp has added more features, they have used it more in their practice. "It is an incredible project management tool that helps us keep all project-related information, discussion threads, and tasks in one place," she explained. "They keep adding 'New Stuff,' as they refer to it, making the application more powerful and useful for us."

Kwaske said that he has also increased his use of Dropbox as applications such as Vectorworks Nomad and JotNot Scanner Pro have integrated with the file storage solution.

DESIGNING A FUTURE FOR CLOUD

Fundamentally, project workflows in design offices are increasingly adopting cloud-based systems for a variety of tasks, from file storage and synchronisation, to project management, to recording important conversations. By

focusing our cloud development efforts on bringing access and collaboration to the visual components of design, the Vectorworks strategy is one of integration.

The use of cloud-based applications in design industries such as architecture and landscape architecture is still relatively young, and it's exciting to think about what will be possible in the next few years. As practitioners turn to these tools to add efficiency and flexibility to their workflows, they must also remain flexible about adopting and investing in new technology. And, with so many applications becoming available, they must look at the benefits of each and decide what will work best in their own practices.

"We are using seven to eight different apps right now and spending a significant amount of money on them, but we believe they are indeed increasing our efficiency." said Kwaske. "There are others out there that we are frequently evaluating, but there are features with those applications we use that are keeping us with them right now."

As the market for cloud-based applications continues to evolve. Nemetschek Vectorworks will continue to listen to customers and support their needs with new technologies and solutions to help them save time, improve collaboration, and increase efficiency. Ch

Time to excel

The ever-changing cloud: take your expertise to the next level at the dramatically expanded Cloud Expo Europe 2014 in London this February





loud Expo Europe 2014 is jampacked with world-class cloud experts, a major exhibition with a record 200+ cutting edge suppliers plus 300 expert speakers in a compelling conference and seminar programme covering all the key issues. And whether you are from a major enterprise, the public sector, service provider or an ambitious SME, you'll find case studies from organisations that have faced - and overcome - similar challenges to the ones you are wrestling with. It's a great chance to ensure your organisation maximises the benefits of the ever-changing cloud. Last year's Cloud Expo Europe had almost 7,000 attendees, independently BPA audited and won the prestigious AEO Award for 'Best Trade Show' - for the second year running!

Following the success of the 2013 show at Olympia, which attracted more than 6,850 attendees, AWS, Dell, NTT and Outsourcery have already joined the growing list of exhibitors for the 2014 event. The expansion to ExCeL London provides room for new additions to the Expo, including a Software Defined Networking programme, dedicated Big Data content and a new dedicated programme for developers - all designed to attract more decision-makers from enterprises, service providers and the cloud ecosystem.

An impressive range of speakers, headed up by Netflix CTO Adrian Cockroft, will also have the crowds flocking to the event. Confirmed panel speakers include Chris Kemp, CEO of Nebula and former CTO at NASA, Daniel Leabeau, Group CIO at



GlaxoSmithKline, as well as cloud computing experts from eBay, PayPal, Vodafone, HSBC, Deutsche Bank, Philips and Citibank.

CONFERENCE SESSIONS

There will be something for everyone at this year's Cloud Expo Europe in the various conference theatres. Let's take a closer look at some of the business and technology themes being covered.

Keynote Theatre:

The cloud movement is driven by savvy technology executives practicing a cloud first IT strategy across their business, coupled to a rapidly evolving, vibrant and booming cloud marketplace, one which is constantly pushing the cloud technology envelope. This theatre hosts foremost International cloud leaders, including some of the world's top rated visionaries, senior industry speakers and executives driving this change. Speakers will deliver their outlook of cloud's future, as well as leading CIOs and senior IT executives on stage, who will be sharing their roadmaps for cloud success. Sessions will include:

"The Age of the Creator - Cloud without compromise", with IBM;

"Big Data and the Cloud - two revolutions that are changing the world", with Rackspace;

"How cloud is disrupting, liberating and changing the boundaries of healthcare". with UCL NHS Trust:

"Putting IT in control of choice", with EMC.

Cloud Management, Services and Applications:

New cloud technologies are changing the way organisations do and run their business. A successful IT strategy must ensure cloud-based resources, services and applications are living up to their promises. Choosing the right way to

manage your organisations data, service providers, your customers and enabling faster and more efficient technology deployments are the key focus of this track's content. Sessions include:

"How to navigate the move to integrating Cloud into your overall IT strategy", with IBM:

"Mobility: Balancing flexibility and privacy", with Workshare:

"Standing out in a crowd: Differentiated cloud solutions", with EMC

Cloud Service Providers & Ecosystem -**Business:**

The rise of the cloud service provider continues at break neck speed and the cloud offers huge rewards for service providers, both those running their own technology and those embracing technical, business and open source partnerships. For the best operators, the cloud promises enhanced services for customers whilst generating financial rewards for business owners and shareholders. This theatre covers business models for cloud service providers, hosters, telcos, ISPs, VARs, SIs



and ISVs looking to extend their own cloud services or partner with other service providers and cloud businesses. Sessions include:

"With increasing drive towards cloud standards, what opportunities do service providers have to create and maintain differentiated service offerings?", with Gigas, Adapt and others;

"Reseller/integrator to cloud service

cases can they address and do they build services themselves or act as a link in the supply chain?", with Verizon, Interoute and others;

provider - what role does the channel play

in the delivery of cloud services, which use

"Cloud services brokers - are they here to help the service providers, VARs and MSPs with cloud integration services?", with Zertia, Cloudwork and others;

"Quality of service in the cloud - is it important and if so, how can it be monitored and assured?", with Calligo and others

Cloud Service Providers & Ecosystem - Technical:

Service providers and cloud businesses must continue to embrace new technologies and interoperability strategies to ensure their customers reap the cloud's rewards and they stay ahead of their competitors. This track is packed full of European Service Providers, international cloud leaders and analysts; it covers the key and current technology issues cloud service providers and the technology ecosystem must embrace to retain and win new customers. Sessions include:

"Cloud Data Centre Connectivity 2.0 business benefits, case studies and new monetisation models", with Digital Realty and others:

"Data overload - what role does the service provider play for enterprises who need cloud-based data management and analytics, to crunch and analyse huge sets of data?", with IBM and others;

"Interoperability in the cloud - the cases for and against - what does in mean for cloud service providers?", with VMWare and others;

"Use cases for enterprise cloud - what are the top services/workloads that large

WHAT'S NEW FOR 2014?

300 Speakers - the world's best enterprise and cloud service provider conference programme.

The New Network Evolution Zone - showcasing the latest network technology, including SDN (Software Defined Networks) and NFV (Network Function Virtualisation).

A Total of 10 Dedicated Theatres - Including the new Software Defined Data Centre and Networks theatre, an enlarged Big Data theatre, a new live showcase theatre and a 350 seat plus keynote theatre - all located at the heart of the exhibition:

- Keynote Theatre 350 seats!
- Virtualisation, Infrastructure and Platforms
- Cloud Management, Services and Applications
- Security & Governance
- Cloud Service Providers & Ecosystem Technical
- Cloud Service Providers & Ecosystem Business
- Big Data & Analytics
- CIF Theatre Cloud Industry Forum
- Software Defined Data Centre and Networks Theatre
- Product Showcase Theatre Live Cloud Technology Demos
- Enhanced service provider content, with more than 30 panels, hosting 100 service provider and technology industry CEOs, CTOs and senior decision makers from 17 different countries. The panellists will cover the cloud industry's hottest business and technology topics.

20 panels of European cloud service providers - on stage to discuss the latest and most important business and technology trends in the service provider market and cloud ecosystem.

A co-location with Data Centre World - Europe's biggest data centre event. The two events combined are set to form Europe's biggest emerging technology event.

A new venue - Having outgrown Olympia's National Hall, Cloud Expo Europe 2014 will for the first time be held at the ExCeL Exhibition Centre, London's most advanced and modern events venue. A high-tech venue for a high-tech show!

organisations are moving to the cloud and why?", with Orange Business Services and others:

"The European cloud service provider marketplace - which technologies are having an impact and how must service providers adapt to extend their reach further into the cloud?". with Attenda. Deutsche Telekom and others.

Cloud Innovations & Showcase Theatre:

The use of cloud technology across organisations of all shapes and sizes is growing rapidly - but is your business keeping pace with the latest and greatest technologies? This conference track hosts discussions on leading-edge cloud technologies and services, alongside live product demonstrations from cloud vendors and service providers. Session topics include:

"Demonstrating how to keep your cloud performance consistent", with Databarracks;

"Hybrid Cloud Backup. What it is. What it's good for", with Western Digital;

"Adaptive User Authentication in the Cloud". with SMS Passcode.

Cloud Industry Forum Theatre:

The Cloud Industry Forum (CIF) is committed to ensure trust, transparency and confidence in the delivery of Cloud Services to business users. Leading industry speakers from CIF member organisations will debate key issues impacting the development of the industry and share best practice strategies for both service providers (26th) and enterprises (27th). Including Case Studies from CIF certified providers, demonstrating how CSPs ensure they are accountable to their customers. Sessions will include:

"Secure cloud services in a regulated environment - sharing insights and experiences across both UK and EU

perspectives", with ATOS;

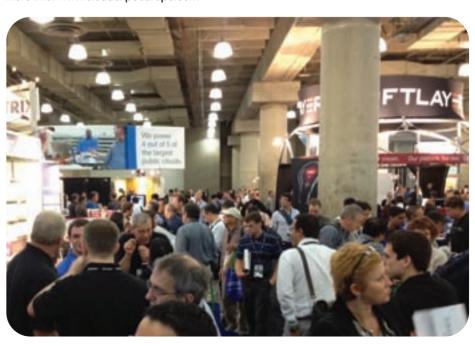
"Enterprise CIOs - Is Amazon or VMware vour cloud answer? Emulate, compete or join forces?", with ScienceLogic;

"How CSPs can increase end user confidence in moving to a cloud service delivery model - the value of CIF Certification", with Outsourcery.

The CIF theatre will also be hosting several round table/expert panel events over the two days of the event, as well as the first UK Cloud Awards, showcasing innovation. achievement and passion in British cloud computing deployments.

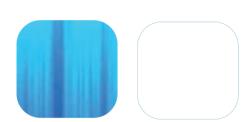
Cloud Expo Europe takes place at ExCeL Exhibition Centre, London on the 26th & 27th February 2014, entry to the event is entirely free of charge. The event is colocated with Data Centre World, Big Data Expo Europe and the Open Cloud Forum, making it even more of an unmissable event for anyone involved in decisions relating to cloud strategies and infrastructure.

More info: www.cloudexpoeurope.com



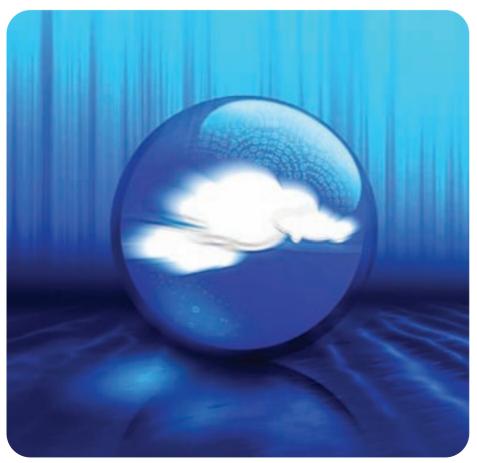
Future proofing

The technology industry is notoriously fast-moving and changeable, and the advent of cloud has accelerated that rate of change. Cloud Hosting magazine asks a selection of brave industry leaders for their predictions on what the next year will bring to the sector and to the wider IT marketplace



ampbell Williams, Six Degrees Group:
Data continued to be a major focus for 2013 but for businesses it wasn't so much a question of "How much data?" as "Where is my data?", "How safe is my data?" and "Who might be looking at my data?" Security and sovereignty of data has become a priority for businesses using the cloud. This was seen after Edward Snowden's revelations

about the US, home of many large technology companies and cloud computing providers, and two specific pieces of legislation, the US Patriot Act and the US Foreign Intelligence Surveillance Amendment Act (FISAA). Businesses are beginning to ask: "Do I want my data on clouds provided by US companies with lowest common denominator security, or no SLA at all and no room to negotiate?"



For the future, the questions will still be about data, but businesses will realise that if that data is important to them, they need to keep it under their control. This means working with providers they trust and putting in place systems that keep their data secure. Businesses will evolve from thinking about client/server architectures to a client/cloud mindset: the client will be more than just the PC/laptop, it will be a whole host of devices. IT departments will be forced to try and stop controlling individual devices and start to focus on software and services that are device agnostic yet keep precious data secure. At the same time the "internet of everything" will continue to grow; there will be more people and more devices. Machine-to-machine, smart devices and 3D printing will all have significant ramifications for how we architect our systems and networks.

Nat Maple. Acronis:

Three things that will happen in 2014:

1. Cloud storage will evolve. Consumers will no longer store single files to the cloud. They'll instead use the cloud to mirror their desktop,



"Working with the right Cloud Service Provider will allow businesses the chance to get more than just the basics from the cloud, taking each business objective as a starting point and using cloud computing to meet that objective. So whether it's accommodating a mobile workforce with

Desktop as a Service (DaaS), or provisioning for overseas expansion with Infrastructure as a Service (laaS), businesses will be utilising cloud computing more intelligently." - Kevin Linsell, Adapt

laptop, tablet or mobile device - so that if a device is ever lost, stolen or broken it can be restored instantaneously. We've seen this start to seep into the mainstream with iCloud, and we'll see even more of it next vear.

- 2. Consumer privacy concerns will grow. Consumers will become more sceptical about storing their files within services like Facebook and Google. Privacy consciousness will hit a tipping point, with consumers looking for alternatives on how to store data beyond their individual devices. Consumers will realise the cloud "isn't enough" for backing up their information.
- 3. Catastrophic data loss will forge emotional connections. The phenomenon of "forced obsolescence" will make more people lose their data. Loss creates emotional connection -- you don't know what you have until you lose it. Therefore the trend of having to consistently update devices will show people how important it is to store their memories outside the device.

Kevin Linsell, Adapt

During 2013 businesses began to get over the hype (and fear) around cloud computing. Organisations are no longer wary of the cloud and are becoming used to the concept, the terminology and also the business benefits that are synonymous with cloud computing -

speed of deployment, scalability, capital expenditure savings, flexibility and technological innovation offered by Cloud Service Providers (CSPs).

In 2014, to get more from the cloud, businesses will start to move away from working within one rigid cloud model. Instead of outsourcing to just one CSP and buying an off-the-shelf package, businesses will expect to be able to work with a CSP that knows them inside-out. Working with the right CSP will allow businesses the chance to get more than just the basics from the cloud in 2014, taking each business objective as a starting point and using cloud computing to meet that objective. So whether it's accommodating a mobile workforce with Desktop as a Service (DaaS), or provisioning for overseas expansion with Infrastructure as a Service (laaS), businesses will be utilising cloud computing more intelligently this year.

Paul Coates, Riverbed:

Over the past year, whilst we have seen a lot of discussion about the Gartner mega trends cloud, social, mobile and big data organisations have continued to invest in virtualising and consolidating their IT infrastructure. In 2014 we can expect to see four key trends that will impact businesses:

1. Single cloud strategies will fade.

Companies are increasingly automating the shifting of workloads from one cloud service to another in order to achieve optimum performance, price and availability. Businesses are beginning to realise that having a single venue for computing leaves them exposed to risks from an availability and performance perspective, so in 2014, we will see companies move away from a single cloud strategy towards a multi-cloud strategy approach.

2. 'Software defined everything' hits production. SDN is already proving its worth to a number of organisations running very large networks. We have already seen the virtualisation of servers and desktop PCs now however virtualisation is coming to the network. In 2014 we'll see organisations finally implement software-defined architectures to achieve continued flexibility and control. We can expect individual terms like "software defined networking" and "software defined storage" to give way to larger concepts around the software defined data centre (SDDC) and software defined branch. While a true SDDC will be some distance off for many businesses, over the next 12 months businesses will need to adopt the right infrastructure elements early, and begin to implement virtualisation and SDN to help them progress toward a fully virtualised data centre.



"... the IT world will settle for nothing less than a softwaredefined data centre that allows it to efficiently consolidate, protect and manage physical, virtual and cloud-based workloads and enjoy a more agile and scalable shared cluster of business-critical applications across public and

private clouds."- Tarkan Maner, Nexenta

- 3. Consumerisation shifts power from the IT organisation to the users, whether that's employees or customers. As the power of the individual and user expectations continue to grow, IT organisations will have to adapt to their users. In 2014, IT organisations will respond by implementing metrics and measuring the satisfaction of their users.
- 4. Big data drives private cloud storage. In 2014, Big Data will become even bigger, driven largely by the growth of "Internet of Things". However, as everything becomes driven by IP addresses and the amount of data generated continues to grow, we can expect this to put unprecedented pressure on storage strategies and technologies. As a result, over the next year we can expect two things. Firstly, in-house companies will need to move towards a combination of robust storage hardware and software that allows for quick access to

relevant information. Secondly, as data storage needs increase, more companies will turn to private cloud storage.

Tarkan Maner, Nexenta:

Over 2013 the IT world recognised the need for a software-defined storage model that abstracts data from the hardware on which it resides, enabling the creation of a highly scalable logical resource that can be centrally (and automatically) provisioned and managed. It is now a given that this is the only way to truly achieve the vision of a software-defined data centre - one can flexibly deploy highly available applications on shared hardware resources, migrate them across locations and scale up and down in response to demand. Now this vision has been achieved, the IT world will settle for nothing less than a software-defined data centre that allows it to efficiently consolidate, protect and manage physical,

virtual and cloud-based workloads and enjoy a more agile and scalable shared cluster of business-critical applications across public and private clouds.

This year then, Software-defined Storage will shake up the market. Software-defined storage is the commoditisation of storage and will separate the software function from hardware and give service providers a less expensive alternative to take to customers. By working with any protocol stack, resellers can build specialised storage systems on commodity hardware, rather than expensive specialised appliances. A key enabler of the SDDC is virtualisation. This is being leveraged by the open source community to build less expensive cloud and storage stacks which we see as a major driver to save in deployment costs (CapEx) as well as driving down OpEx and TCO. Ch



"Businesses will evolve from thinking about client/server architectures to a client/cloud mindset; the client will be more than just the PC/laptop, it will be a whole host of devices. IT departments will be forced to try and stop controlling individual devices and start to focus on software

and services that are device agnostic yet keep precious data secure." -

Campbell Williams, Six Degrees Group

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Keeping customers on the rails

Cloud Hosting editor David Tyler speaks to Phil Worms, Director of Corporate Communications at iomart Group plc

David Tyler: There is a strange dichotomy between the relative newness of the cloud - especially in terms of its use by enterprises - and the longevity of firms like iomart, who have effectively re-invented themselves as technologies have changed. How did the company get to be where it is today?

Phil Worms: The iomart business celebrated its 15th birthday just before Christmas last

year, which makes us the same age as Google, older than YouTube: in terms of the internet's lifespan, we've pretty much been there from the start. And we've seen some amazing changes over a relatively short period.

We started life as an integrated telco, with a hosting arm, but crucially we were also one of

the first UK triallists for the rollout of broadband. So our focus was very much on broadband and hosting in those early days. What we realised as we grew that business, and became seen as an authority on broadband, was that connectivity was going to be crucial to our continued success - and indeed the success of broadband takeup across the board. The widespread adoption almost commoditisation - of broadband has totally changed the landscape. And as we've moved on that has increasingly come to include mobile as well, whether 3G or 4G. The only time we even stop to think about the level of connectivity that we now all take for granted, is when it's not there for some reason! You know the feeling, when you're booking into a hotel and realise it doesn't offer fast broadband and wi-fi, you're almost tempted to book into the one down the road instead. That's how ubiquitous this technology has become.



DT: It is clear that one side of the equation for cloud hosting depends on the ubiquity of fast broadband - presumably the other side relies on the growth in outsourcing, and the economic arguments there?

PW: In a way it feels like things have come full circle since those days when we were trying to get people to adopt broadband - connectivity is as big an issue now as it was in those days. There are several reasons for this. As the outsourcing movement has reached a tipping point - and more and more organisations are maybe wondering why they should keep all this information inside their business - people don't want to be trying to move large volumes

"As the outsourcing movement has reached a tipping point - and more and more organisations are maybe wondering why they should keep all this information inside their business - people don't want to be trying to move large volumes of backups or multimedia files via a slow connection. It needs to get where it's going quickly, and securely - and you also need to be able to retrieve it again just as quickly."

of backups or multimedia files via a slow connection. It needs to get where it's going quickly, and securely - and you also need to be able to retrieve it again just as quickly.

Some people are saying that the shift to the cloud is like the beginning of a second industrial revolution. It seems to me that if you do compare this to the original industrial revolution, it was the advent of the railroads that transformed the economic well-being of businesses - once they could transport goods from A to B quickly and cost-effectively, then we saw the rapid economic development of the USA, UK and Europe. To stretch the analogy then, it's almost like the ISPs, data centres and cloud services providers are offering the same sort of infrastructure, supporting the new industrial revolution. The internet is like the railway lines of the Old West!

DT: So how does a company like iomart react to the technological and business changes that have affected the world so much in recent vears?

PW: It's not often that a company can say that it foresaw something coming and planned for it, built a strategy around it and went on to deliver on that strategy. Perhaps we had an element of luck in our success, and certainly the state of the global economy has helped to focus everyone's minds on managing costs, but nonetheless I would say that we did foresee as far back as 5 or 6 years ago, that the cloud was going to become the de facto trading platform for today's world. We also realised because of our own experience, that

where you are reliant on third parties - as we had been reliant in the early broadband days on BT for their network, for instance - that you can only own certain parts of the customer experience. That is to say the parts that you are directly responsible for. That can leave you exposed as a service provider - customers don't want to hear that a problem is down to something supplied by someone else who has let you down. This led us to make what many saw as a bold decision.

Six or seven years ago we saw a lot of what we called 'server huggers': IT departments and management who wanted to retain control over their IT estate management. At the same time people were having to carefully evaluate their costs and maybe rethink what was and wasn't their core business. Of course then a lot of CEOs and FDs began to ask "Why are we buying all these servers? There must be better ways of buying computing capability."

DT: In theory IT outsourcing to CSPs looks like a no-brainer in many ways, but there are clearly still lots of issues to be resolved. aren't there?

PW: Companies will only have the confidence to make that kind of big shift in thinking if they know that the change will not disrupt their business in any way. So this is why we made the decision that if we were going to move into cloud services provision, we needed to do it in such a way that we owned the customer experience end to end. Once we'd come to that realisation we very quickly came to see

that the 'engines' of the internet are the data centres. I know lots of people still have this idea of cloud as being something almost literally ethereal, but of course the fact is that the data has to reside somewhere, of course and that is the data centre.

So we went out and we purchased an initial estate of five UK data centres, and then ensured that they had what we describe as 'two of everything': two power feeds etc., so that there is literally no single point of failure possible. And we've built out from there. When we started out on this road it was quite novel for a firm to say 'We are a hosting company with data centres', as opposed to being either a data centre operator or a hosting company. We have now grown to a base of ten UK data centres, along with points of presences in six international locations. In the UK setup, all of those data centres are networked using our own fibre network. So we are literally not reliant on anybody else.

What that allows us to do, that others can't. is to deliver products and services that are truly market leading, backed by the idea that a customer can take say two virtual servers with us, and they don't know - or need to know - whether those servers are in Wales or in Manchester. And in fact it doesn't matter to them. It gives us a flexibility and a support structure that means we can offer service levels to our customers that I genuinely don't believe can be matched anywhere else in the industry.

More info: www.iomart.com



Building trust in the cloud

Wherever your business is in its 'cloud journey', you need to create a cloud services environment that is Secure, Trusted and Audit-Ready (STAR), argues Ken Allan, Global Leader Information Security, Ernst & Young

ot that long ago, cloud computing was little more than a speck on the horizon. We heard reports of it rapidly becoming a mainstream technology, but it had yet to yet to make a meaningful impact on our technology landscape. According to EY's Global Information Security Survey, in 2010, 30% of respondents indicated that their organisation used or was planning to use cloud computing-based services. In 2011, the percentage had risen to 44%.

By 2012, cloud computing had reached a technological tipping point: almost 60% of survey respondents said their organisation was using or planned to use cloud computing services. And yet, 38% of respondents said that they had not taken any measures to mitigate the risks of using cloud computing services. This disruptive technology was advancing faster than many could secure it.

BUILDING A BETTER WORKING WORLD

A more recent Forrester Research report suggests that for 73% of surveyed businesses in Europe and North America, security remains a major concern when considering cloud computing.

One of the first principles of improving

information security is take control of your environment. It would therefore feel counterintuitive for an organisation to surrender control of its IT infrastructure and data to a third party. And yet this approach may offer the best opportunity to address increasingly complex security and privacy challenges. Rather than becoming an organisation's worst security nightmare, cloud computing platforms may offer its best hope to create a more secure IT environment by strengthening controls and improving information and security capabilities.

WHAT'S THE ISSUE?

No longer considered an emerging technology, cloud computing services have entered the mainstream. Today, a significant majority of organisations have either adopted or are planning to adopt some form of cloud computing technology. Whether CIOs know it or not, their data and corporate boundaries have entered the cloud. Business units, departments and business partners are engaging directly with cloud services providers without first consulting IT: a phenomenon we call "cloud creep." The lines of our once clear corporate network boundaries are now blurry.

However, despite its ubiquity, many IT

executives remain hesitant to endorse a "cloud first" approach. Even worse, there are some who refuse to adopt any cloud-based service at all.

Some fear that communicating data over a public network will increase its vulnerability to cyber attacks. Others worry that cloud service providers offering the same infrastructure to multiple clients in multiple locations will not be able to maintain segregated confidentiality. Still others express concern that transmitting their data across international boundaries will expose them to diverse legal and regulatory requirements in jurisdictions with which they're unfamiliar.

Unfortunately, these fears and IT's perceived need to retain physical controls over its environment can increase an organisation's risk rather than mitigating it. Within many organisations, when business units that want to use cloud computing hear "no" from IT, they simply go off and procure the service themselves. This not only extends the organisation's IT environment without the right protections in place, but it also takes cloud computing into the shadows where IT can neither anticipate nor address the resulting risks.

IT must shift its focus from saying "no" to

saying "yes" in a way that adds value to the business and protects it from mounting cyber-security risks. Developing a cloud framework that creates a secure, trusted and audit-ready (STAR) environment may be just what IT executives need to say "yes" with confidence.

WHY NOW?

Whether IT professionals like it or not, cloud computing services have become an integral part of day-to-day business activities. Between 2010 and 2012, cloud adoption rates nearly doubled. Those who have embraced cloud-based services have generated internal efficiencies. attracted new customers, discovered new avenues to market their products, increased internal collaboration and gained an overall advantage over their competitors.

HOW DOES IT AFFECT YOUR BUSINESS?

It takes little more than 15 minutes and a credit card to purchase and set up a cloud solution, making it an easy workaround for business executives that too often hear "no" from their IT functions. In large organisations, the proliferation of this phenomenon without IT oversight creates growing security, privacy and financial risks to the organisation.

Even those organisations that have adopted cloud services are exposed. Often, there is a gap between the controls typically implemented in the cloud and the controls necessary to create a secure, trusted and audit-ready cloud environment.

IT executives who have not worked with the business to embrace the cloud have

seen a marked increase in shadow IT within their organisation and a corresponding decrease in their influence within the organisation. In EY's 2013 Global Information Security Survey, only 17% of participants indicate that their information security function fully meets the needs of the business. Changing information security's mind-set to help the business find a path rather than block it is the challenge that organisations face.

Cloud-based services are here to stay. IT functions need to learn to either work with them or suffer the cyber-security and financial consequences that may result in having cloud adoption take place without the input and value of IT.

THE STAR APPROACH

Since banning cloud services within an organisation is not an option. IT executives should shift their focus toward building a secure, trusted and audit-ready (STAR) cloud environment.

SECURE

A secure cloud environment has the appropriate controls to protect the confidentiality, availability and integrity of the systems and data that resides in the cloud. Appropriate procedural and technical protections are in place to protect data at rest, in transit and in use.

TRUSTED

A trusted cloud environment is designed to stand the test of time. It should provide high availability and resilience to adverse events.

AUDIT-READY

An audit-ready cloud environment has continuous compliance and is certified to meet specific industry regulations and legislation. Appropriate procedural and technical protection is in place, documented and can be verified for compliance purposes.

The following six domains contain the







various controls and procedures required to support a STAR environment. This model can be flexible and should accommodate the different of cloud deployment models so that IT can provide clear guidance to the organisation to promote responsible adoption of the cloud.

- 1. Organisation. Cloud services impact the organisational behaviours. Organisations need to document roles and responsibilities associated with the use of cloud services and train employees regularly on these protocols.
- 2. Technology. IT functions should design applications according to industry security standards, encrypt the data, and implement role-based access and identity management solutions.
- 3. Data. IT functions need to classify and inventory data, assign data owners and securely purge data that is no longer required.
- 4. Operations. Business continuity management (BCM) and resiliency program policies and procedures should include periodic review and testing. Additionally, policies and procedures for BCM, change management and data center security should be documented to formalise roles and responsibilities.
- 5. Audit and compliance. Organisations should plan and execute audits in a way that minimises business interruption. For maximum assurance, organisations should engage a third party to perform the audit and certify the environment.
- 6. Governance. There are many cloud options from which organisations may choose, from public cloud services, to building a private cloud, to a hybrid approach. Regardless of the deployment path organisations pursue, governance processes should be scalable, repeatable, measurable, defensible and constantly improving.



Using the model as a foundation, IT functions can then create a framework to:

- Assess and monitor by evaluating the organisation's current risk profile and then developing a plan to address key areas of exposure
- Improve and enhance by executing remediation activities that support the plan
- Certify and comply by obtaining thirdparty assurance that the organisation's cloud environment is secure, trusted and audit-ready

THINK 'CLOUD FIRST'

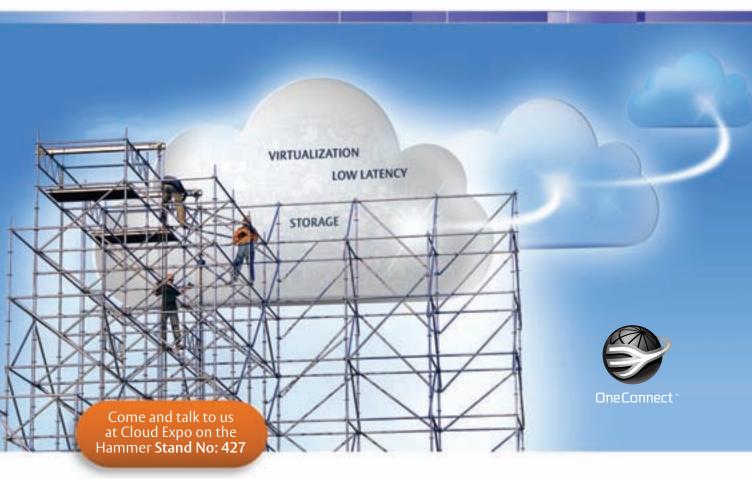
Widespread consumption of cloud services isn't 'on its way'. It's here. Early adopters of cloud services have already gained competitive advantages. It is clear that those organisations who can think "cloud first" while managing their risks through a clear cloud trust model are benefiting from the efficiencies, cost savings and additional capabilities that cloud brings.

By creating a framework based on six cloud control domains, organisations - regardless of what stage they are at in their cloud journey - can create a cloud services environment that is secure, trusted and auditready. The key is to find ways to balance the real and perceived risks with the value of adopting a cloud solution that improves the security of an organisation's intellectual property.

More info: ey.com/5







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The future is still bright

Orange Business Services chose NetApp storage infrastructure as the basis for its move into cloud services provision

range Business Services, the Orange branch dedicated to B2B services, is a leading global integrator of communications solutions for multinational corporations. With the world's largest, seamless network for voice and data, Orange Business Services reaches 220 countries and territories. In 2010, the business was at a turning point. Despite the growing demand for telecommunications services, increased competition and the commoditisation of bandwidth had brought revenue growth in the industry to a standstill.

"How do you fight this paradox?" asks Vivek Badrinath, Orange deputy CEO of Innovation, Technology, and Customer Experience. "You increase the value of what you deliver to your customers." Orange Business Services quickly reinvented itself, moving into cloud computing with its Flexible Computing cloud service.

Orange Business Services realised it had to move quickly to meet burgeoning customer demands and reinforce its position in the industry. Explains Philippe Laplane, SVP Orange Cloud for Business: "Storage is a key part of our cloud computing solutions, so the agility of our storage and data is critical to our success."

Orange Business Services chose NetApp storage and data management technologies to enhance the agility, security, scalability, efficiency, and nonstop operations of its offering and support its ambitious cloud revenue goal of 500 million euros by 2015. "The technology and partnership from NetApp have been key to our success in the cloud," says Laplane.

THE STORAGE CHALLENGE

"Fast time to market was important because our existing telecom customers were eager for laaS, and we wanted to be the company to serve them," explained Yann Degardin, Technical Project Lead, Orange Business Services. "To meet our aggressive launch schedule, we initially used the same third-party Fibre Channel storage area network (SAN) platform that we already used for our own business, in conjunction with Cisco Catalyst switches.

But the SAN platform hampered our flexibility, in two ways. First, the maximum LUN size with Fibre Channel is 16TB. Therefore, we had to aggregate LUNs for customers that wanted larger datastores, and aggregation can decrease virtual machine performance. Also, a customer that needed 80GB had to provision and pay for 200GB, the smallest unit. We believe that our customers should have the flexibility to provision any size datastore."

The other drawback of the previous storage solution was that expanding or contracting a







"Our Flexible Computing service is built on technology from today's leading vendors, and NetApp solutions are the heart of our cloud offerings. They really embraced our ambitious business model and allowed us to scale quickly."

customer's datastore required manual effort from the operations team, an unsustainable operational model. To increase capacity, OBS had to aggregate cells into a single datastore that was visible from VMware and from the customer portal. Scheduling and completing the work typically took two full days - not a scalable process. Degardin went on: "And to decrease capacity, we had to migrate customer data to a smaller datastore. We couldn't simply remove a LUN from the datastore because we would lose data."

A FLEXIBLE CLOUD ARCHITECTURE

OBS gained the flexibility that differentiates its cloud service by replacing the original cloud storage with the NetApp Unified Storage Architecture, Multiprotocol support in NetApp storage enables them to use the same storage architecture for primary and backup storage and for physical and virtual servers. This relieves the IT team from having to learn and manage multiple storage environments. In the company's data centres in France and Singapore, they deployed paired NetApp FAS6240 storage systems for production data and paired NetApp FAS3240 storage systems for backup. Support for Network File System (NFS) protocol in NetApp storage solved the problems they had previously had with the Fibre Channel SAN, making capacity management far more efficient.

PROVIDING TIERED SLAS

OBS is now able to offer tiered service levels for storage performance - Gold and Silver - using the same NetApp storage infrastructure. The technology behind tiered service levels is NetApp Flash Cache, which

accelerates data access by caching recently read user data or NetApp metadata. Customers that request the gold service receive an SLA for 600 IOPS. Their data resides on SAS drives that are front-ended by Flash Cache. Customers that choose the silver service receive an SLA for 160 IOPS. With Flash Cache, Orange can meet this SLA using lower cost SATA drives, helping to keep service costs down.

"We think of Flash Cache as bridging the gap between our SLAs and actual disk performance," explains Degardin. "We use NetApp FlexShare to specify the relative priorities of volumes, allocating 80% of the Flash Cache capacity to gold-tier customers and the remaining 20% to silver-tier customers."

AT THE HEART OF THE CLOUD

With its Flexible Computing infrastructure-asa-service solutions, Orange Business Services has redefined its business and its customer relationships. "Customers see us more and more as a single source for their IT and network needs," said Thierry Bonhomme, CEO of Orange Business Services.

Orange Business Services can monitor the availability and performance of an IT system from the end user's workspace through the network and back to the data centre - so its customers don't have to worry about a single link in the chain. Today, NetApp R&D teams work alongside Orange Business Services R&D teams and its vendors to design, develop, and take to market new solutions for Orange Business Services' vast target

market. This includes large enterprises in 220 countries and territories as well as small to medium businesses in its French domestic market.

"Our Flexible Computing service is built on technology from today's leading vendors, and NetApp solutions are the heart of our cloud offerings," reveals Bonhomme. "They really embraced our ambitious business model and allowed us to scale quickly."

With 35PB of NetApp storage and counting, Orange Business Services will continue to leverage the power of NetApp storage and data management technologies when it rolls out a new line of big data solutions. "Storage is even more important in big data," reveals Laplane. "Big data is all about storage, compute, and analytics, so we need a very strong storage partner. With NetApp we have found a solid partner that's incredibly easy to work with."

GROWING ORANGE

"In the current economic environment," says Bonhomme, "the ability to launch an innovative business fast without sinking in tons of capital is one of the big benefits of cloud computing. Leading corporations worldwide are already turning to Orange Business Services' Flexible Computing to achieve greater IT agility. We are really excited about the way that Flexible Computing is transforming business. We are bringing together a wealth of technology to create new customer experiences, products, and services that will unleash innovation."

More info: www.netapp.com



Microsoft - at the cloud tipping point

The SharePoint world is at a significant tipping point, argues John Mancini of AIIM: customers are moving into a hybrid world, with some organisations moving to the cloud, some sticking with on-premise and most opting for a hybrid solution

hen Microsoft officially launched Office 365 in June 2011 it was rightly seen as a landmark step for the company and a significant pivot to the cloud. Customers using the SharePoint platform need to build strategies to balance the benefits of on-premise flavours of SharePoint and the add-ons that build upon this platform with the standardisation benefits associated with Office 365 and the cloud.

STATE OF PLAY

Microsoft's launching of Office 365 saw the world's biggest desktop software firm moving to the cloud and competing directly with such cloud software services as Google Docs. But with the spread of the onpremise SharePoint platform simultaneously gaining traction across the enterprise, the shift raises a number of questions - and opportunities - about content, records management and governance work in a hybrid SharePoint world.

AllM is occasionally accused of being both an attacker of SharePoint AND a SharePoint apologist. We are neither, but we must all acknowledge that SharePoint is a major player in the content management marketplace, with around 125 million licensed users worldwide, and users are

wrestling with the fundamentals of their content management decisions as never before. Should we move to the cloud? Should we move everything to the cloud? If not, how do we manage governance in a hybrid environment?

These questions are never simple, even within a single vendor environment. Some organisations are users of the traditional, onpremise SharePoint. However even this is not a single platform given that AIIM surveys tell us that including SharePoint 2013, there are four generations of SharePoint in commercial use.

Other organisations are migrating to the SharePoint that comes with Office 365. Each and every deployment comes with its own particular challenges, as AIIM discovered in 2012 when we released our report, 'The SharePoint Puzzle - adding the missing pieces'.

This research sought to map the drivers, strategy choices and uptake of SharePoint add-ons for governance, ECM, BPM and collaboration and the findings revealed the extent of the complexity surrounding many deployments. At the time of our survey last year, almost half of those surveyed (44%)

were using some form of ECM/DM alongside SharePoint and seven in ten were not using SharePoint as their primary, enterprise-wide ECM system. In the next few weeks AIIM will be launching its 2013 survey, and I believe we will see significant changes in these numbers.

In the survey there was a base level of satisfaction amongst users, with more than half (55%) saying it was the right decision to choose SharePoint. SharePoint has proven to be more complicated than anticipated for many organisations; 22% felt they have only achieved a basic deployment compared to their original ambitions. The main shortfalls in expectations were the difficulties that come with content migration and information governance, with more than half of respondents (54%) planning third party addon products in order to enhance functionality. All of which means that SharePoint is a platform rather than an application something Microsoft constantly points out and many business users forget - and that any platform requires development to make it work.

HEIGHTENED COMPLEXITY

Fast forward to Microsoft's and SharePoint's pivot to the cloud. The pivot means that most

organisations - as they migrate to the cloud, think about migrating to the cloud or most likely proceed with a hybrid solution - are entering an era of unparalleled complexity in terms of their information, content and data and how that is stored, managed and utilised.

For small and medium sized enterprises (SMEs), Office 365 can act as a one-stop shop from a provider they know and for the most part trust. For any business currently relying on file-sharing, email and spreadsheets to run their business - in other words for most SMEs - cloud based solutions and getting out of the e-mail hosting business can be a significant step forward. For larger enterprises the issues of governance in particular become more complex as they enter a hybrid world that will likely include on-premise, private and public cloud solutions and a host of variations and combinations.

In its latest version, SharePoint has significantly improved its records management and e-discovery functionality. The FAST search functionality is more fully baked into the new offerings. There are significant enhancements in social functionality within the SharePoint platform itself. The Yammer integration will be extremely interesting to watch. Yammer has already been integrated into Dynamics CRM. Basic integration with Office 365 will occur this summer and allow customers to replace the SharePoint newsfeed with Yammer. Deeper Yammer integration is slated for autumn / winter.

YOUR STEPS TO SUCCESS

Like any solution, how and whether SharePoint is appropriate for your organisation and for what purpose is a function not only of the product but also of your particular business needs, what other solutions are currently in play, and how these solutions are expected to play together.

The first step is take a deep breath and take

"For small and medium sized enterprises (SMEs), Office 365 can act as a one-stop shop from a provider they know and for the most part trust. For any business currently relying on file-sharing, email and spreadsheets to run their business - in other words for most SMEs -- cloud based solutions and getting out of the e-mail hosting business can be a significant step forward. For larger enterprises the issues of governance in particular become more complex as they enter a hybrid world that will likely include on-premise, private and public cloud solutions and a host of variations and combinations "

stock of your situation and address things holistically. The complexity of your environment depends enormously on what has been done previously. If you have an early version of on-premise SharePoint for example, your step to SharePoint 2013 will feel more like a new implementation rather than an upgrade.

Addressing issues of governance is key to any successful content management deployment. The main issue of governance with SharePoint deployments is that until fairly recently many SharePoint implementations were in small project teams within a business and any "governance" required was specific to that point solution. For organisations that want SharePoint to play a larger role and be much more ingrained across the business, governance strategies must be adjusted accordingly. In the words of SharePoint evangelist Jeff

Shuev. Director of Strategic Alliances at Winshuttle, SharePoint governance is about to change from "little-g" governance to "big-g" governance.

Perhaps most important though, is to explore exactly why the business is choosing to deploy SharePoint. This is more important than what features or functions the tool may have, and lies at the heart of any successful deployment. Organisations that are building complicated process solutions on the SharePoint platform will need to think through the differences between on-premise SharePoint 2013 and the cloud-based SharePoint within Office365. As with any enterprise content solution, users must be realistic about what they are trying to achieve with SharePoint and understand when a third-party add-on is required to complete

More info: www.aiim.org



aptop, Smartphone and tablet have overtaken desktop usage, and enterprises are mobilising everything from ERP to Office 365 and customer

support. The use of mobile devices has

activities on the go.

resulted in users doing their routine business

This growing mobility trend meets the BYOD [Bring Your Own Device] movement and is putting enterprise networks at risk. BYOD means that mobile devices often circumvent corporate networks and their security umbrellas. When a mobile device connects to a public or 4G network, IT administrators lose visibility and control, because appliances cannot see the traffic outside the corporate realm any more. Traditional security solutions, such as in-line URL filtering, are being rendered ineffective in the mobility age.

Anti-virus (AV) software, another standard end user security solution in the enterprise, has also been rendered ineffective by mobile. Resources are finite on mobile devices and battery life is limited, so continually running background apps is less than desirable and the sandboxed nature of the file system prevents AV from scanning all local data. Moreover, on iOS, AV isn't an option at all, as this operating system doesn't permit apps to

Securing the Mobility Age through the Cloud

Employee mobility will be the rule rather than the exception in the cloud-connected enterprise, bringing with it a whole new raft of security concerns, argues Michael Sutton, VP of security research at Zscaler

run in the background. As such, a staple of security in the PC world is dead when it comes to adapting it into the mobile world.

As enterprises move corporate data to the cloud and employees connect through mobile devices, a new security paradigm is necessary. Security appliances and host-based solutions simply cannot meet the needs of the rapidly changing, global and mobile enterprise. The solution to securely scale an increasingly distributed business does not lie in the purchase of more hardware and software. IT departments must shift from a mentality of 'block vs. allow' to 'manage and monitor'.

A new approach takes security away from static appliances that do not cover mobile users and increasingly create choke points for Internet traffic. A worldwide network that surrounds the Internet, bi-directionally

inspecting all end user traffic, regardless of location or device, provides an answer. Considering the distributed nature of global organisations with their mobile workforce and the ubiquitous cloud services, organisations need to embrace a distributed network and security architecture that meets its users' requirements in the cloud.

Such a cloud-based security model is the way forward. It is not reliant on where users are or what devices they are using to access the web or cloud applications. The cloud offers a flexible way to lessen the risk of employee-owned devices bypassing conventional filtering layers. A cloud security model acts like a check post between the user and the Internet, and all Internet-bound traffic goes through it, hence enabling businesses to embrace mobility and cloud, while enforcing security policies that follow the user www.zscaler.com



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Mike Kail VP of IT Operations Netflix

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Controlled chaos

Lee Fisher from Abiquo explains how poorly planned out cloud adoption can undermine the benefits on offer and frustrate the journey to the cloud

loud services are designed to bring agility, simplicity, efficiency and self-service capabilities to a business and to support new ways of working and new opportunities. Among the many benefits on offer is the ability to select infrastructure and services from a range of different vendors. In reality though, many vendors are failing in their promise to deliver these services. In such a competitive and saturated market, vendors are all claiming to deliver the same thing - and as a result they are unable to differentiate themselves.

While businesses have freedom of choice in terms of selecting infrastructure and services, first and foremost they need to have an understanding of what they need and the capabilities of their existing infrastructure. There is a lack of education and understanding around the cloud, especially in terms of understanding the benefits that it can offer in the context of any existing capacity and capability. That said, enterprises are missing opportunities and not taking full advantage of the cloud because they do not know how to utilise it to its best advantage.

One of the biggest advantages attracting enterprises to the cloud is its ability to control how services are consumed, and in turn to better balance demands, costs, reliability, security and performance.

However, when demand spikes, what is an

enterprise to do? Scale up and purchase more infrastructure or infrastructure services, or identify existing capacity and reallocate resources?

Identifying existing under-utilised IT resources should always be the first port of call before any additional services or resources are purchased. While it's not necessarily an easy task, it can save enterprises a substantial amount of money. For the executives, cost efficiency by managing budgets, knowing what departments are spending their budgets on and ultimately, where money can be saved, is always on the agenda. Technology is no exception.

ITS ALL TOO EASY

With the likes of Amazon shaping the cloud marketplace it has become shockingly easy to acquire cloud services. Enterprise application and business development teams can easily bypass their IT department completely and acquire additional services in minutes, meaning visibility and control over data and who has access to it is at an all-time low. Being able to browse through a catalogue of business ready services and produce the company credit card to instantly procure additional IT services, with no reference to the IT department, is appealing and easy. It's true, IT departments can guite often be the bottleneck in the approval and provisioning of cloud services,

but ultimately this goes against the idea of having the cloud at the heart of the business. In this case the idea of the cloud is just an add-on and prevents true optimisation, which in turn impedes access to the benefits that the cloud can provide.

Spending on cloud services is increasing. Maximising cloud expenditure relies upon having a full and comprehensive understanding of the cloud platforms in place, and managing their provision. By using unified applications, IT departments can seize back their control of service allocation, budgeting, access and governance and define their own rules. They will also be able to gain a clearer oversight of what's being accessed, allocated, utilised and underutilised. This will not only substantially simplify cloud processes, but will ensure that existing assets and resources are being fully optimised. It will also ensure that money isn't being wasted on the procurement of services that aren't necessarily needed.

Knowing for certain that you can provide a seamless cloud service should be a vital part of any organisation's strategy. Equally, gaining control and independence of your cloud services, internal assets and their application, must also be a vital part of any cloud planning and deployment: something which shouldn't be overlooked.

More info: www.abiquo.com

Untangling the network

David Barker, Technical Director at 4D Data Centres offers some guidance on building a new cloud-ready network with Software-Defined Networking (SDN) at its heart

lot of attention has been given to running applications in the cloud and the underlying server and storage infrastructure that will be required to operate them. However, a lot less attention has been afforded to the networks required to support them.

Hardware has been catching up with the needs of the cloud network. New switches can run scripts and talk to the hypervisors so that if during a failover event, for example, a virtual machine moves from one hypervisor to another, the network moves with it. This reduces the need to have all of the servers running within the same logical vLAN, which requires a lot of active management.

The next evolution is software-defined networking (SDN), where the control plane of a device is separated from the data plane. This offers centralised management of a network infrastructure and the ability for monitoring systems to react to failures by directly altering configurations to work around them. This results in resilience over fault tolerance.

RESILIENCE IS KING

Resilience needs to be above the provision of fault tolerance. Fault tolerance means that your network can withstand a single fault, establishing the practice of avoiding a single point of failure. This isn't enough for the diverse range of applications, users or clients that depend on the cloud. With many tenants on the cloud, all expecting to stay isolated and have five-nines uptime, the network needs

not just to be able to tolerate faults (plural intended), but also to work around any faults while impacting the fewest tenants.

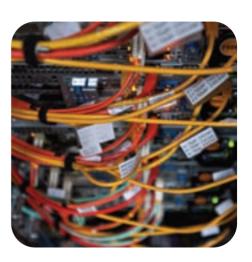
If you can't work around these faults then it should at least fail gracefully. Most networks that are fault tolerant will survive the first failure, but then everything goes down when the second failure occurs and mostly with no apparent grace!

This is where SDN can help. By ensuring that the control plane and management layers are separated from the actual hardware, they aren't affected by any single fault. They should be able to analyse all aspects of the network (from capacity on links to current configurations) while being aware of your critical tenants, so that the network can fail in a way that protects the connectivity to those selected groups.

CONVERGING THEMES

Convergence is another feature of a welldesigned cloud network. Legacy infrastructure generally has two networks: one for application traffic between servers and users, and one over which applications can access files on storage devices. Both of these use different technologies and each is optimised for its role. But this comes at a very high cost in dedicated components, incompatible interconnection technologies and replicated management for each of the networks.

A converged network can perform both the roles of a legacy network but uses a



common technology (lossless Ethernet) that brings many economies of scale and is far easier to manage. In a converged network, a port is a port; an administrator or the software with SDN decides how you want to use it at the time you plug a server or storage device in. This system has enough intelligence to separate the two kinds of traffic to ensure that each gets its appropriate priority and bandwidth.

While technology for cloud servers and applications is fairly well developed, the underlying network that it relies on has been slow to catch up. If you are designing a network today that will have a large number of cloud applications being deployed, it is worth looking at some of the newer technologies.

They will cost a bit more, but if well designed and deployed they will help to make sure that your network is able to cope with the demands of the cloud, now and into the future.

More info: www.4d-dc.com

Getting a bigger slice of the business

As the online business for Pizza Hut UK increases to over one million orders a week, parent group Yum Brands has moved to new hosting partner Virtustream



um Brands is the world's largest restaurant company with more than 37,000 restaurants in over 110 countries and territories and more than one million associates. Its restaurant brands include KFC, Taco Bell and Pizza Hut. Outside of the U.S. in 2009, Yum opened more than four new restaurants every day of the year.



The UK operation employs thousands of people throughout the country with over 700 restaurants and delivery stores within the Pizza Hut chain alone. In such a large and quickly expanding operation, there is a phenomenal amount of business critical information being sent across networks every day. This was increased four years ago when the Pizza Hut chain enabled customers to begin ordering online.

It became crucial to identify the correct partner to solve the specific issues facing the business: adding the capability to enable online ordering at Pizza Hut made it quickly apparent to Yum Brand executives that its existing data centre was no longer adequate for the expected rise in website traffic.

GOING LARGE

"Our previous data centre was fine for our initial needs, but as we expanded and offered more services to our customers we outgrew it," explained Fawad Shah, network and infrastructure manager at Yum Brands. "We were not able to receive the high operational availability, fast change management turnaround which our business demanded and most importantly the high level of operational and security compliance that a global brand such as ours would demand and expect from our hosting partner. Other factors that were important were the relationship. We were looking to work with a partner who

"Our previous data centre was fine for our initial needs, but as we expanded and offered more services to our customers we outgrew it. We were not able to receive the high operational availability, fast change management turnaround which our business demanded and most importantly the high level of operational and security compliance that a global brand such as ours would demand and expect from our hosting partner."

understood our business and did not have the legacy customer/supplier relationship, as well as the high density power capability to accommodate our footprint requirements."

Taking the project to a competitive pitch, Shah had compiled an impressive list of companies including Computacenter, Global Switch, BT, SCC and Virtustream. He required a partner that would be 'a good fit' for Yum. With the level of expansion planned, he needed to be reassured that Yum would be treated with priority. "We also needed a partner that was flexible and easy to work with. If we needed to make a sudden change to our services, our partner would need to action this within hours rather than days or weeks," explained Shah.

TICKING ALL THE BOXES

As a company with over a decade of experience managing virtual environments and offering a flexible approach that allows clients to capitalise on the flux of today's dynamic business requirements, Virtustream ticked all of these boxes. The data centre is purpose designed and built meeting one of the highest levels of Tiered operational capability, guaranteeing as a minimum of five 9's uptime and reliability. All Virtustream data centres in the UK are ISO 9001-2008 and ISO27001-2005 certified and all technical personnel are government security vetted. "Meeting and exceeding our compliance requirements" as Shah says.

Virtustream is a leading cloud innovator offering enterprise class cloud solutions to enterprises, governments and service providers. Virtustream enables businesses to move complex production applications to the cloud - whether private, public or hybrid - while delivering the full economic and business benefits of the cloud. Virtustream offers xStream, cloud management software for private/public/hybrid clouds and also offers the Virtustream Cloud which provides secure, high availability, Infrastructure as a Service (laaS) to enterprises.

"When you walked into the data centre it was clear that this was designed and built by an organisation with the intentions to provide the very best service," said Shah. "As one of the anchor companies in the data centre, it also gave us the potential to expand significantly if and when we needed to."

Working with SysMicro, Pizza Hut's infrastructure and managed services partner, Pizza Hut's legacy infrastructure was relocated to the Virtustream data centre, on to new platforms which included virtualisation, blade servers and a MPLS network which connects every Pizza Hut outlet and restaurant back to core systems.

Shah was also impressed with the personnel: "The team designed and built the data centre to the highest spec. They really understand the market, what a company like us needs from a hosting partner and they ensure that this is delivered. Working with a company like Virtustream and seeing firsthand the experience and expertise of the team at the site, we knew that our data was in a safe environment".

VIRTUAL FUTURES

With the website server now in place and with over £1m of orders a week coming through the data centre, Yum has expanded their footprint within the data centre. There are also further plans for expansion including bringing in other brands from the Yum group to the site as Shah explains: "Moving forward we will look to integrate our networks with other restaurant chains in the Yum group. One of our major objectives is to improve our business continuity as a group and Virtustream can certainly help with that. Incorporating KFC's network for example, which is currently located at its headquarters in Woking, will allow us to split the stores across two data centres. In the event of a failure the stores in the affected site will simply transfer to the other."

As the group continues to grow, Yum is increasingly looking towards a fully virtualised environment to ensure that they continue to drive cost savings, whilst operating in a flexible, but secure environment.

www.virtustream.com

Best of both worlds?

Hybrid IT would appear to be the prevailing deployment model for the foreseeable future, says research from the Cloud Industry Forum - Cloud Hosting Magazine takes a closer look



ost organisations are already operating a hybrid IT estate in one form or another, and according to the Cloud Industry Forum (CIF), this trend will continue for the foreseeable future.

This mix of on-premise, hosted and cloud services, along with the proliferation of mobile solutions, collaboration and devices, means that the future challenge confronting IT managers is how to build an effective hybrid IT estate while meeting the operational and governance needs of the organisation.

Andy Burton of the CIF states: "Hybrid IT is hardly a new phenomenon as it relates to the co-existence of multiple IT deployment models, which has been true for most business since the move away from mainframes in the 1980's. However, most causes of a hybrid environment have been the product of a transition process rather than an explicit strategy. Arguably this is no longer the case today, and to further test the extent to which on-premise will continue to co-exist alongside cloud-based services, we asked participants that already use cloud services if they would ever consider moving their entire IT estate to the cloud. The results were quite enlightening in that almost 50 per cent of firms could eventually see themselves one day being wholly based in the cloud (12% as soon

as possible, 17% based on IT refresh cycles and the balance when they perceived the cloud was able to accommodate all of their business IT needs). The remaining 50% cannot see a day when they will be entirely based in the cloud, but only 4% had no expectation of ever using a cloud service."

Matt Eckersall. UK Director of Hosting. Microsoft, comments: "We know that for today's CIOs and business leaders, the cloud presents an opportunity to redefine the role that the IT and non-IT business functions play in implementing a business strategy. Because of its power to fundamentally change how businesses operate and compete, the cloud is a game changer for many companies. As we focus on people, we know that no business service you create today lives on an island. You need apps, communication, and collaboration to connect together in an agile way. To achieve this, we believe you need a comprehensive cloud - from platform, to productivity, to business solutions. It doesn't make business sense to make a one-off software decision in today's world. So the hybrid way really will remain the practical deployment model for the foreseeable future."

Nick East, CEO of Zynstra, a provider of hybrid cloud solutions for SMEs, stated: "The combination of on-premise and cloud services

is nothing short of a marriage made in heaven for the SME. Hybrid IT is the perfect solution for this market. Today it is possible to provide SMEs with world-class IT capabilities in a way that allows them to pay as the benefits are realised, not when the solution is first deployed. Arguably enterprise-class IT at an SME cost. SMEs face the same challenges as they look to migrate to the cloud as any other organisation, including concerns over data sovereignty, data privacy and control. In addition, they are often concerned about limited access to Internet bandwidth. For these reasons, we have no doubt that SMEs will naturally gravitate towards a hybrid model that lets them use applications and store data at the point that works best for them."

Gilles Samoun, Chairman and CEO of Abiquo, a cloud management platform provider, added: "IT has always had to deal with the compromise between designing the perfect infrastructure for each IT solution, and standardising to gain economies of scale and deliver a consistent set of services. Moving to a hybrid model of cloud services deals with the scale issues for hardware, but introduces new challenges in maintaining consistency of service provision and support. Increasingly we will see companies look beyond just viewing cloud as an alternate infrastructure, and examine how a multi-provider cloud world can be integrated to their inventories, monitoring and support systems, and processes. The hybrid, multi-provider cloud model will play a big part in this transition, giving businesses more choice and flexibility. As a consequence, rather than "move to the cloud" we see companies making the cloud an extension of their own tried and tested environments." Ch

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