Cloudhosting

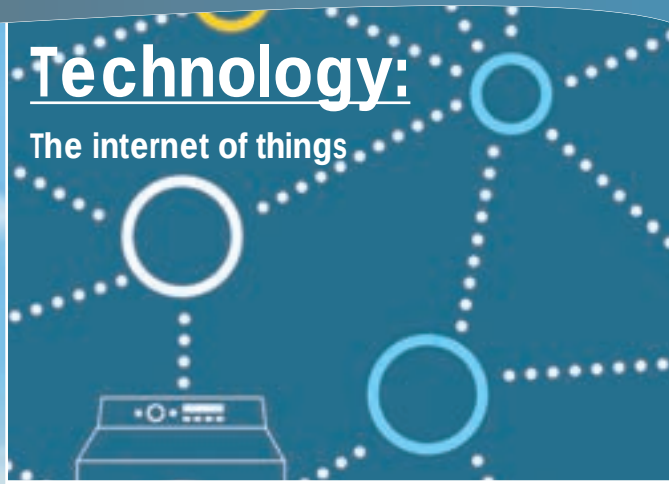
April/May 2014 | www.cloudhostingmagazine.co.uk | £8.50 Where Sold

Public Sector computing:

Is G-Cloud hitting the spot?

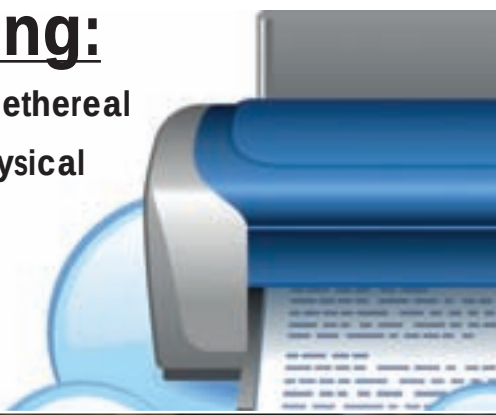
Technology:

The internet of things



Printing:

From the ethereal to the physical



Cloud SLAs:

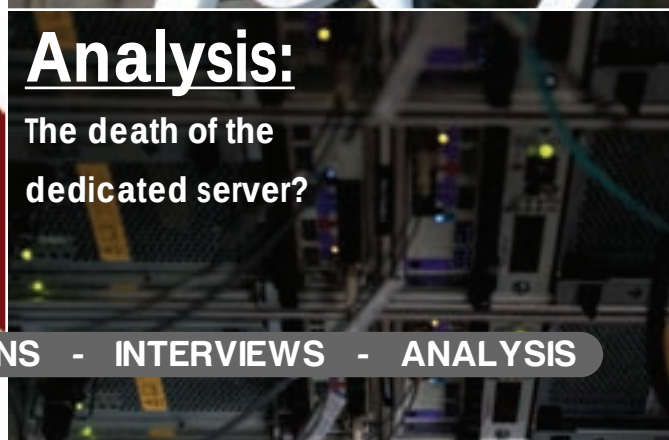
The devil is in the detail

Case Study

Telefonica Digital

Analysis:

The death of the dedicated server?



INDUSTRY NEWS - USER STORIES - OPINIONS - INTERVIEWS - ANALYSIS

Contents

A Tablet to Sweeten the Deal!

Sign Up for a Windows Dedicated Server* and get a Microsoft Surface 2

Absolutely FREE!

Buy a Windows Dedicated Server from any iomart brand before 11th July 2014 and we'll give you a brand new Microsoft Surface 2 tablet.

Thin, light tablet with up to 10-hour battery life. At less than 1.5 pounds and just 8.9 mm thick, Surface 2 lets you carry less while you do more. It runs Windows 8.1 RT and comes preinstalled with Microsoft Office 2013 RT4, so you get Outlook, Word, Excel, PowerPoint and OneNote — out of the box. Surface 2 ups the ante with a more powerful, always-on processor, so it's ready to go when you need it. With an up to 10-hour battery that keeps you charged through the day, Surface 2 is powerful, yet ultra-thin and lightweight.

Microsoft

iomart

Available from:

Easyspace making the web easy

RapidSwitch dedicated expertise

MELBOURNE

redstation

hostinguk.net

Offer Available Until 11th July 2014

*Terms and conditions apply. See online for full details.

www.iomart.com/surface or call 0800 040 7228

From the Editor

The second issue of Cloud Hosting magazine appears at a time when there is much debate ongoing around the success or otherwise of the G-Cloud framework project, whose expectations were set so high when initially launched not so very long ago. Intended to revolutionise the way that public sector organisations procure and manage their IT systems, there have of course been the inevitable delays and uncomplimentary press reports of difficulties behind the scenes, and the predictable accusations of 'goalpost moving'.

We take an in-depth look at where we actually are with G-Cloud right now: what are the real issues, and how should the UK government and the IT industry be moving forward to make things better. Andrew Carr of Bull says: "The Government recently admitted that G-Cloud has 'more to do' to convince users of its value. There are clearly many challenges to overcome before the G-Cloud can be considered a success. The key problem remains: how can change be managed effectively? The time is now for the Government, and the wider public sector, to cut through the red tape and start to realise the benefits of cloud computing." As our feature makes clear, that could be easier said than done.

Elsewhere in this issue we ask if the dedicated server has overstayed its welcome; David Barker of 4D Hosting argues: "Virtualisation and cloud computing technologies deliver services that perform exactly like a dedicated server; but are more reliable, flexible, scalable, offer more management features and simply cost less."

We also have a must-read piece about SLAs in the Cloud age: is an uptime percentage guarantee still the key measure for service providers? Dimension Data's Andy Lancaster contends that the traditional way of developing an SLA is not necessarily the right way in a changing market: "There are usually five key areas for SLA applicability. The continuum ranges from facility and hardware-level SLAs, which are the least meaningful and most prevalent, to application level SLAs, which are the most meaningful and least common among IaaS providers." To find out more about exactly what those five key areas are, and which are most relevant to a cloud environment, see page 14.

Don't forget, we are a new and growing title here at Cloud Hosting, and we can't get it right without input and feedback from you our readers. Do email me at the address below if there are any topic areas you'd like to see us covering in future issues.

David Tyler
david.tyler@btc.co.uk

EDITOR: David Tyler
(david.tyler@btc.co.uk)

NEWS EDITOR: Mark Lyward
(mark.lyward@btc.co.uk)

PRODUCTION MANAGER: Abby Penn
(abby.penn@btc.co.uk)

DESIGN: Ian Collis
(ian.collis@btc.co.uk)

COMMERCIAL MANAGER: Josh Boulton
(josh.boulton@btc.co.uk)

MANAGING DIRECTOR: John Jageurs
(john.jageurs@btc.co.uk)

DISTRIBUTION/SUBSCRIPTIONS:
Christina Willis
(christina.willis@btc.co.uk)

PUBLISHED BY: Barrow & Thompkins Connexions Ltd (BTC)
35 Station Square, Petts Wood
Kent BR5 1LZ, UK
Tel: +44 (0)1689 616 000
Fax: +44 (0)1689 82 66 22

SUBSCRIPTIONS:
UK £35/year, £60/two years, £80/three years;
Europe:
£48/year, £85 two years, £127/three years;
R.O.W. £62/year
£115/two years, £168/three years.
Single copies can be bought for £8.50 (includes postage & packaging).
Published 6 times a year.

K3 Hosting: **Cloud made simple**

K3 Hosting offers proactive, flexible and tailored outsourced IT services to help **improve your IT infrastructure** and gain more from your investment in people and technology. From taking total responsibility for your IT systems by moving them into the cloud, to designing and implementing systems which you manage yourselves, K3 provide a range of products and services which are suitable for all types of businesses. **Call us to discuss your IT requirements.**

k3 hosting

hostbuildutilise

web: **www.k3hosting.co.uk** email: **info@k3hosting.co.uk**
tel: **+44 (0) 161 876 4498** twitter: **@k3hosting**

Disaster Recovery as a Service · Hardware as a Service · Infrastructure as a Service · Network as a Service · Platform as a Service · Professional Services · Software as a Service · Service Support · Storage as a Service

HDS SELECTS ENSIM

Hitachi Data Systems (HDS) has selected the Ensim Automation Suite to support Hitachi Unified Compute Platform (UCP) for VMware vSphere converged infrastructure. Ensim will also provide built in support for VMware vCenter and vCloud Director with Hitachi storage and application offerings for enterprise and service provider cloud deployments.

Under the terms of the agreement, Ensim's offering will be pre-bundled with UCP to enable the ordering, configuration, automated deployment, self-service, charge-back and ultimately enable an end-user or IT professional within an organisation to take full advantage of IT as a service (ITaaS).

www.ensim.com

PRIVATE CLOUD SERVICE

Dimension Data has launched a private cloud service based on Microsoft's Cloud Platform. The new service allows businesses to develop and host Microsoft applications in a secure, dedicated cloud environment. Dimension Data's Private cloud services provide enterprise-class security, compliance and control as well as the flexibility to support hybrid 32-bit and 64-bit Windows and Red Hat Linux environments. Dimension Data is a Microsoft Certified Gold partner and Microsoft Cloud OS Network partner.

Steve Nola, Group Executive of Dimension Data's IT-as-a-Service group.said, "By empowering our private cloud with Windows Server 2012 R2 with Hyper-V, we're combining Microsoft solutions with our consulting, integration and management services to provide our clients a full lifecycle of solutions for their Microsoft infrastructure. Dimension Data clients will be able to move Microsoft workloads between their on-premises, Microsoft Azure and Dimension Data Cloud environments."

www.dimensiondata.com

LACK OF CONFIDENCE IN CLOUD PERFORMANCE

Compuware has announced the findings of a global survey of 740 senior IT professionals' concerns about cloud computing adoption. The study, conducted by independent research and consulting firm Research In Action, found that the majority of IT professionals (79%) believe that typical service level agreements (SLAs) built around availability are too simplistic and fail to address the risks of moving and managing applications into the cloud.

Additionally, 63% of respondents indicated there is a need for more meaningful and granular SLA metrics that are geared towards ensuring the continuous delivery of a high quality end-user experience.

When asked which metrics they would most like to see as part of their SLAs with cloud service providers, the top three responses were:

1. Response time and quality for every end user interaction;
2. Availability based on deep continuous monitoring; and
3. Real-time SLA reporting.

The findings also revealed that:

- Nearly three quarters (73%) of businesses believe their cloud providers could be hiding problems at an infrastructure or platform level that impact on the performance of applications.
- 60% of respondents expressed further anxiety that other, co-located tenants consuming difficult to partition resources impact their own workload performance.

"When faced with new IT challenges and risks, businesses can't afford to waste time playing the blame game when something goes wrong," said Thomas Mendel, MD at Research in Action. "Having the ability to work with their cloud provider to quickly get to the heart of the issue and resolve the matter is essential to alleviate risk and hindrances while moving investment to the cloud."

www.compuware.com

CISCO VENTURES INTO THE INTERCLOUD

Cisco is planning to build the world's largest global Intercloud - a network of clouds - together with a set of partners. The Cisco global Intercloud is being architected for the Internet of Everything, with a distributed network and security architecture designed for high-value application workloads, real-time analytics, "near infinite" scalability and full compliance with local data sovereignty laws.

The first-of-its-kind open Intercloud, which will feature APIs for rapid application development, will deliver a new enterprise-class portfolio of cloud IT services for businesses, service providers and resellers.

Cisco expects to invest over $1 billion to build its expanded cloud business over the next two years. Its partner-centric business model, which enables partner capabilities and investments, is expected to generate a rapid acceleration of additional investment to drive the global scale and breadth of services that Cisco plans to deliver to its customers.

Hosted across a global network of Cisco and partner data centers, the Cisco global Intercloud will offer an expanded suite of value-added application- and network-centric cloud services to accelerate the Internet of Everything. The networked connection of people, data, processes and things, dubbed the Internet of Everything, is expected to be a $19 trillion economic opportunity in the coming decade. The Internet of Everything movement, which is creating an entirely new set of requirements for globally distributed and highly secure clouds, has empowered Cisco and its partners to initiate the development of a massively scalable, flexible and highly secure Intercloud to deliver the mobile, collaborative and rich video cloud services that enable today's new connected experiences.

www.cisco.com

UK LAW SOCIETY FEARS FAIL TO STACK UP

The UK Law Society has warned that firms planning to rely on cloud technology for their IT should beware of the risk of lawful interception by intelligence agencies. However these fears have been refuted as completely groundless by IT and cloud services firm the Stack Group.

Sam de Silva, a partner at commercial firm Penningtons in Manches and chair of the Law Society's technology and law reference group, said that cloud technology increased the risk of interception. But according to Jeff Orr, CEO of the Stack Group, the claims have no basis in truth with cloud servers - off-site data storage facilities operated by third parties - providing a higher level of protection than most law firms' internal systems.

Jeff believes that natural wariness over the security of data in the cloud means the industry has been forced to ensure it meets a very high standard of security, making it safer than most legal firms own systems. "There is a constant cost pressure on legal firms as the Government makes cuts to programmes like legal aid," he said. "As such they tend to look at IT and digital security as areas where they can cut costs. This means that many firms have woeful on-site security. By contrast cloud computing providers like Stack Group set very high standards of security to combat the false perception of security weaknesses.

"The belief seems to be that all Cloud services are delivered through the open internet. In fact many of our larger clients, including legal firms, access our Cloud via private circuits. This delivers a reliable, high-speed service which is much more secure than the internet. Our standards are monitored by agencies such as the Cloud Security Alliance and are regularly audited and we meet exacting standards including international management standards ISO 9001 and ISO 27001 - a claim not many legal practices can make about their own IT security."

www.stack.co.uk

SECURITY A TOP CONCERN FOR CLOUD STORAGE

A global survey of 912 businesses by Barracuda Networks has revealed that although 83 percent of businesses surveyed back up some part of their data to the cloud, there is a strong reluctance to embrace the medium fully. In fact, almost half (47 percent) of respondents store less than half of their data in the cloud and almost one-fifth (17 percent) do not use cloud storage at all.

Of the companies surveyed that are using a cloud storage solution, over two-thirds (69 percent) consider the data they store there as sensitive. However, almost one-fifth (16 percent) of companies surveyed have experienced problems with their cloud provider. Of these, 42 percent had found that the data held by their cloud provider was not secure.

Meanwhile, 40 percent claimed that data held in the cloud had not been available when needed and over one-third (37 percent) said their cloud provider had actually lost their data. Further, approximately 89 percent of the firms surveyed cited the security credentials of their cloud provider as important or very important. Respondents said that they are more than twice as likely (53 percent vs. 23 percent) to trust a security vendor than a storage vendor to keep their data safe in the cloud.

Wieland Alge, VP & GM manager EMEA, Barracuda, comments: "Businesses are under no illusion that if they're going to put sensitive data into the cloud, security must be at the top of their agenda. The most trusted cloud providers will be those perceived as having the most secure credentials - credentials that can be earned by the integrity and reputation of the technology brands these providers use to protect their customer data."

www.barracuda.com

CLOUD ALLIANCE

The Cloud Industry Forum (CIF) has signed a formal Partnership Agreement with the Data Centre Alliance (DCA), the not-for-profit industry association comprising of experts from across the data centre sector. Under the terms of the agreement both organisations will establish a reciprocal, non-exclusive alliance partnership to encourage best practice within the Cloud Service Provider sector, as well as educating end user organisations on all cloud computing issues.

The DCA is an industry association comprising of a number of key experts in the data centre industry. Simon Campbell-Whyte, Executive Director, DCA, said: "The widespread adoption of cloud computing has highlighted the need for a common standard that ensures transparency, capability and accountability amongst both cloud service providers and data centres - secure and efficient cloud infrastructures depend on an approach that addresses every layer."

www.cloudindustryforum.org

NEW CLASS OF SERVER

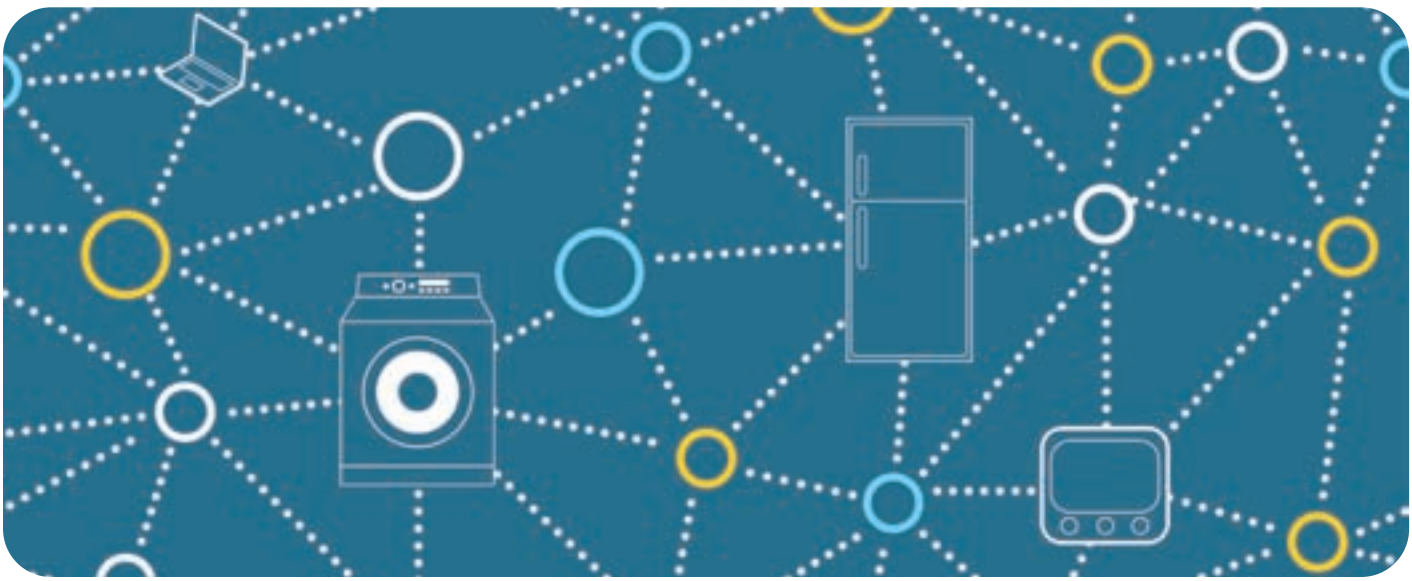
HP and Foxconn have entered a joint venture agreement to create a new line of cloud-optimised servers specifically targeting service providers. The new product line will specifically address compute requirements of the world's largest service providers by delivering low total cost of ownership, scale, and service and support.

The line will complement HP's existing ProLiant server portfolio, including Moonshot. "This partnership reflects business model innovation in our server business, where the high-volume design and manufacturing expertise of Foxconn, combined with the compute and service leadership of HP, will enable us to deliver a game-changing offering in infrastructure economics," said Meg Whitman, president and chief executive officer, HP.

www.hp.com

Things ain't what they used to be

The 'Internet of Things' is a hot topic in the tech world at the moment. Dave Chester of smart automation specialists Custom Controls looks at the reality of some of the predictions being made and the main obstacles that will need to be overcome before The Internet of Everything can happen for real



Talks of the Internet of Things (IoT) started in the early 2000's and now bloggers, industry buffs, engineers and consumers are all talking about the kind of changes that the new technology will bring. The buzz around these topics has even extended into an "Internet of Things" festival in Boston, whose interesting catchphrase title is "Creativity fused with technology and the Internet - together we will make things".

SO WHAT IS THE INTERNET OF THINGS?

The Internet of Things is the idea that one day every electronic machine could be connected through a global wide network (the internet), as well as to each other; meaning that appliances and machines could share and communicate information with each other for the mutual benefit of their owners, i.e. you and I.

The machines that we use every day collect, or have the potential to collect vast amounts of data. The data is generally confined to one machine, system or network. If this data was shared across a large number of machines in order to generate accurate predictions, organise faster responses to incidents and created more automated living - that would be the point where we were experiencing the Internet of Things.

Of course, this sort of data sharing happens on a much smaller scale already - within the kind of automation installations that Custom Controls specialise in, for example, and many more types of media already communicate with each other.

As we move towards this global sharing of data becoming a reality, the Internet of Things is becoming a topic that most governments, manufacturers and engineers are placing a considerable amount of importance on, as the benefits for every sector are being realised.

In theory, we already have the knowledge and the technology to make the Internet of Things happen tomorrow. But there are a number of changes that need to happen before the Internet of Things becomes a reality.

STANDARDS

Most machines and appliances have been engineered & developed independently of one another, and manufacturers are fairly protective about sharing too much

information about the technology that may have taken a great deal of resource to develop. But if the Internet of Things is to become a reality then engineers and developers need to start communicating with each other, and this will mean sharing their own valuable research.

If machines are going to be able to communicate data to each other for our benefit, then each needs to be able to understand one another. This means that they need to "speak" in the same language, or at least be able to translate information from one another in order to make some use of the shared data. Because technology has evolved through so many avenues, there are currently no global standards which all machines are required to follow.

SECURITY

With the possibly of most if not all of the data we own being shared across a global network, security is always going to be an issue that needs to be addressed. The Internet of Things will need to have trillions of channels where data will be constantly moving across the global network, and each new entry point into the network increases the chances of attack.

Most organisations with very private data like governments and medical companies are now very good at preventing attempts at attack. The number of "things" connected to the Internet currently outweighs the number of the people on the planet, and this number is set to grow to around 50 billion by 2020, averaging 6 devices per person. Not all of these machines connected to the Internet - like your coffee machine or your fridge - are going to have the rigorous kind of security that a government network will have, and if everything we own is connected through the global network, there is a risk that hackers could reach sensitive data through these vulnerable and unsecure machines.

This type of IoT hacking has actually already begun to occur where hijackers have already hacked over 100,000 Smart devices, including Smart fridges being used as an entry point for malware attacks.

SPEED

With over 7.6 billion people predicted to be using around 50 billion devices in 2020, our Internet needs to become quicker and more reliable. Satellite internet has the potential to send data further distances than physical cables, but the speed of transfer is heavily affected by atmospherics including various forms of precipitation like rain and snow.

One measurement of Internet speed is latency - which is essentially the time it takes for the data the user has requested to reach their machine. According to research carried out by the Federal Communications Commission, currently the latency for satellite is around 20 times slower than those using terrestrial channels.

SERVICE

One key element that seems to be missed by many exploring the IoT revolution is how we actually transfer the data from one place to another. Our Internet in our homes and in static locations has made dramatic improvements since the days of dial-up, but Internet on the move still has some way to go. At the same time, much of the world is still cut off from any high speed network access.

Internet on our mobiles, tablets and other portable devices is not always reliable. How well connected your devices are can depend on which service provider you are with, how far you are from their masts, and whether you happen to be unfortunate enough to end up in a tunnel whilst trying to send an email or make a call.

Although the network of cables that deliver data is fairly extensive, and phone masts are improving, they need to be expanded to reach the more remote parts of the world, to cope with the predicted population growth and to deal with areas that are currently cut off from the network because of physical barriers.

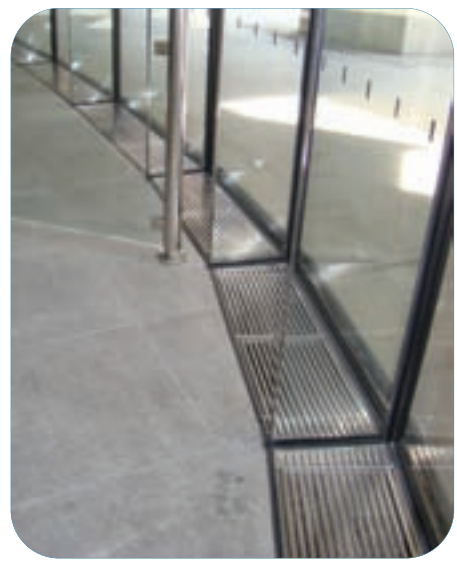
NOT SO IMPOSSIBLE

Despite all of these barriers, when you think about how far we have improved in all of these areas already, we really aren't that far off from Internet of Things happening as the science fiction geeks are imagining. Our motivation to use technology to improve the efficiency and ease of our own lives will always be a driving force to continue to evolve technology - and we are very excited about the opportunity the future holds!

More info: www.customcontrols.co.uk

Cloud hosted ERP is more than just hot air

When replacing its old ERP system, S&P Coil Products avoided the traditional approach of installing new software onsite and instead selected a tailored, hosted and fully managed solution



S&P Coil Products Ltd (SPC) is a specialist manufacturer and supplier of heating and cooling equipment to the public and private sector and is based in Leicester, UK. Its product portfolio includes heating/cooling coils, fan convectors, trench heating, radiant panels, radiant conditioning sails, heat pipes and air curtains. In addition to its UK business, SPC has sites in Dubai and Qatar covering the Middle East.

When replacing its old enterprise resource planning (ERP) system, SPC avoided the traditional approach of installing new software onsite. Instead, the company selected a tailored, hosted and managed SYSPRO ERP system from K3. The cloud delivered ERP solution is provided as a fully managed solution by K3 Hosting. This approach offers many advantages over an onsite installation. These include state-of-the-art hosting, disaster recovery, security, scalability, regular updates and enhancements, plus the benefit of K3 Hosting providing a one-stop-shop, single point of contact for SPC's business software needs.

As a world leader in heat exchange and heat recovery, SPC is able to provide bespoke solutions and help customers with special requirements and tight project deadlines thanks to its flexible manufacturing approach. IT plays a critical role in the organisation and is necessary for its growing business, hence why the company replaced its old ERP system.

"We needed a solution that would enable SPC to move forward and it was important that the software would adapt to the evolution of the company. We've seen our work volumes increase and SYSPRO will allow us to scale up and improve our efficiencies. This is particularly important as we operate just-in-time (JIT) business processes and we need these to be effective," says Neil Hudson, Information Technology & Communications Manager, SPC.

There are two important data security reasons for opting for a cloud solution, reports Neil Hudson: rapid data recovery, as SYSPRO

"By having SYSPRO deployed in the cloud, we are able to easily add new sites to the solution. It just makes our whole working infrastructure so much easier. Staff can access the cloud from anywhere on a multitude of devices so it helps us to continue to move forward without having to constantly return to the office for menial administrative tasks."

can be fully restored within 24 hours, and limited data loss, because the system backs up automatically every 15 minutes. System failures are rare but when they happen K3 Hosting responds immediately to get the system restored to full operational status. Therefore, system up time is maximised by the virtue of its resilience and the expertise of K3 Hosting.

Neil Hudson adds: "I wanted to get away from the blame culture associated with ERP systems whereby a problem results in a non-productive situation where the user's IT department blames the vendor and vice versa. By having K3 hosting and managing the SYSPRO deployment for us, we can monitor how effective it is for our business. If there is a problem, we know that K3 Hosting will resolve it for us. We have 24/7 support and this frees our internal IT team from general system and network management and troubleshooting, which allows them to concentrate on developing our products."

As a growing business, the decision to deploy SYSPRO in the cloud fit in well with SPC's company strategy. As a growing business, SPC is looking to expand even further over the next few years adding workforces in a number of overseas countries. Adding new users to the company IT network is an easy and fast process when using a cloud solution.

The idea of having mobile access to the business IT network is another aspect that appealed to SPC. Thanks to having SYSPRO deployed in the cloud, staff at the company can access the network on the go, from their iPads and smart devices.

"By having SYSPRO deployed in the cloud, we are able to easily add new sites to the solution," enthuses Hudson. "It just makes our whole working infrastructure so much easier. Staff can access the cloud from anywhere on a multitude of devices so it helps us to continue to move forward without having to constantly return to the office for menial administrative tasks."

SPC is constantly updating its stock and adding new products. The company's sales team sells products to HVAC (heating, ventilation, and air conditioning) contractors. Sales staff use a custom product configuration tool that integrates with the company's cloud-based SYSPRO ERP system. This integration allows product developers to update the dimensions and costs of the products that the customer wants. This approach gives SPC a development sandbox that allows the product developers to use the data for prototyping outside of SYSPRO and then transfer it to the system once the work and quote is completed. This retains the integrity of the original data held within SYSPRO.

Neil Hudson adds: "It is also very reassuring to know that our data is being looked after offsite in a data centre that is shared by other big businesses and recognised brand owners. It also means that we don't need lots of IT hardware onsite and that experts are looking after our data. This gives us peace of mind at all times."

The new system was introduced in two phases. Phase one was the installation of the cloud-based SYSPRO software and phase two covers the implementation of the hosted data exchange, email system and file storage, converting SPC to a full cloud based software environment. Such cloud implementations make good business sense to progressive multinational, multisite organisations as they enable relatively easy integration of each site. This enables relatively easy integration allowing them use of common systems such as email and calendar scheduling and this improves communications. This approach also eliminates 90 per cent of the data security risks that exist with onsite ERP installations.

Phase one saw SPC and K3 Hosting working closely together to get the software installation completed in only 12 months from start to finish. SPC in Dubai was the first site to go live with the new cloud system, with the UK Leicester site three months later. Phase two is underway, with the objective of having all sites in the cloud by the end of the year. Additional sites such as India will be added as required.

"We have been impressed with SYSPRO since we went live with it in Leicester and in our Middle Eastern offices, So far we have integrated our sites in Leicester, Dubai, Saudi, Qatar and our workshops in the Middle East. We are also looking to expand the business into India. Because we use the solution in the cloud, it is very easy to add new users. We pass on the login details we require to K3 Hosting and within 30 minutes the new users have access to the system," says Neil Hudson.

More info: www.k3hosting.co.uk

Death of the dedicated server?

With the growth of cloud hosting, services such as utility computing and VPS are changing the way that administrators provision servers. But does this mean we can finally say goodbye to dedicated servers? David Barker of 4D Hosting looks at what the future holds

Virtualisation and cloud computing technologies deliver services that perform exactly like a dedicated server but are more reliable, flexible, scalable, offer more management features and simply cost less. As more web services and applications move over to cloud-based virtual servers, you have to wonder if this spells the end of the traditional dedicated server.

FLEXIBILITY AND SCALABILITY

Dedicated servers do not scale in the way a virtual machine does on a cloud platform; they are designed to provide a set amount of resources and the only realistic way of scaling is to add additional servers or to increase the resources on the dedicated server. While hosting in the cloud you can add additional servers and have CPU, RAM or storage added to existing servers usually with zero downtime and in a few clicks.

MANAGEMENT AND RELIABILITY

Lifetime management and maintenance of a server can also be expensive. Additional service level agreements for faster part replacements and high availability need more physical machines as well as more load balancers, firewalls and switches.

When you move to a virtual server hosted on a cloud platform a lot of this is already taken care of. If the underlying physical hardware fails then your server should be automatically migrated to a new machine. The storage should be mirrored with a high level of RAID and a lot of the firewall/load balancing functions can be taken over by virtual machines, allowing you to take advantage of the resilient nature of a cloud platform rather than having to double up on the hardware.

PEAK LOADS

This is perhaps the most persuasive argument for using cloud hosting: with a dedicated server you need to provision the resources to match the highest load you expect so that your website or application doesn't fall over during the busiest periods. However, your website might only experience that load for one day a year, or even one hour a year, and the rest of the time all that server capacity is still unused.

With hosting a cloud platform, the virtual server can either have extra resources added to it instantly before your peak loads or it can often 'auto-scale' and react to changing demands by increasing the CPU or RAM as needed (usually with a 'per hour' charge).

WHAT CAN'T THE CLOUD DO?

Believe it or not, there are some applications and tasks that cloud hosting is not suited for. For example, big data analytics which have high intensity database loads or CPU intensive calculations. These consume large amounts of CPU cycles, RAM and disk performance, so don't perform well in a multi-tenanted cloud environment at the moment.

Although these applications can run within a high availability, scalable environment, they tend to be hosted in a data centre with hundreds of machines dedicated to one application. This allows an entire physical server to be effectively given over to running a single virtual machine with spare machines available for this 'private cloud' to expand into as load demands. This would then be paired with high speed storage and provides a platform that isn't practical to provision on a public or hybrid cloud at the moment.

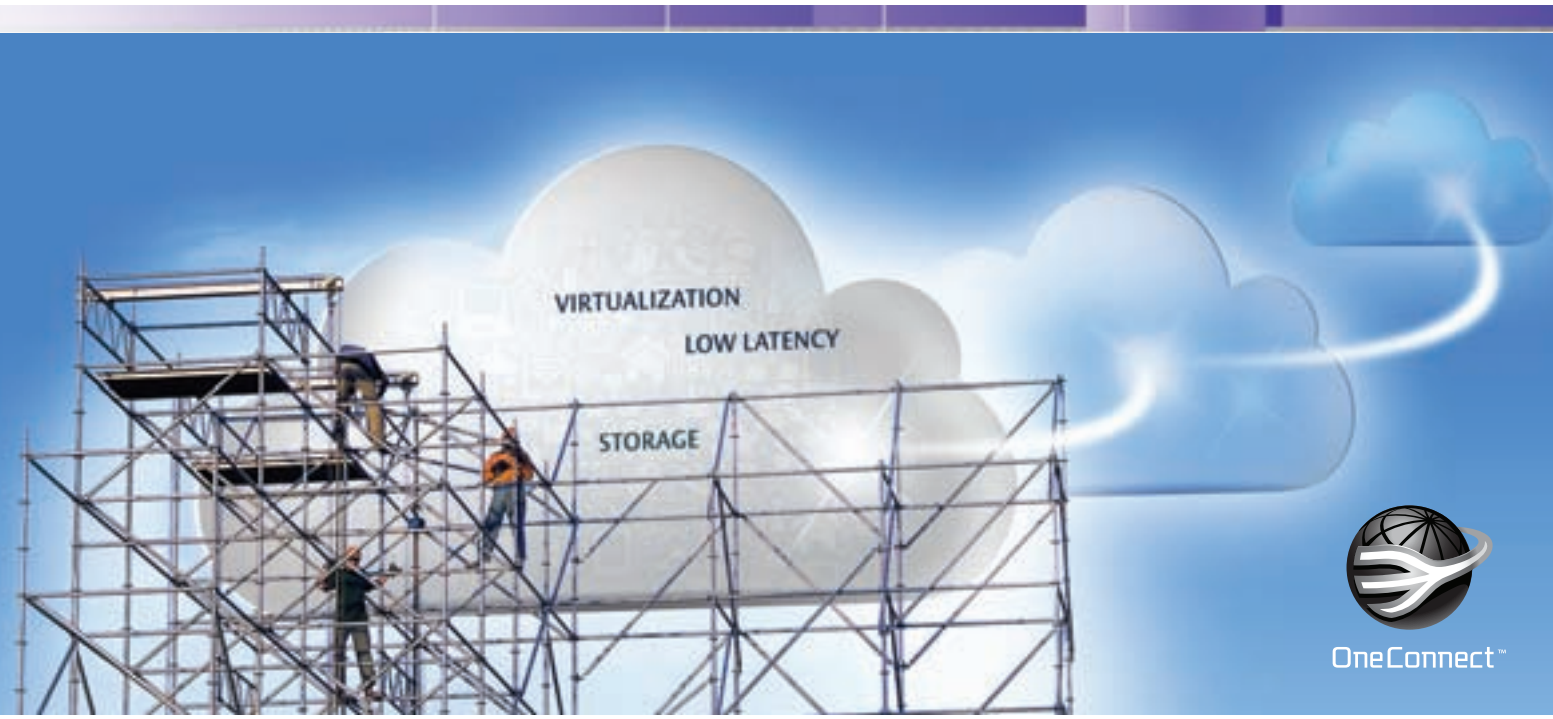
THE LAST WORD

Putting aside information security concerns of a multi-tenant environment and public clouds for the moment; on a technical level cloud hosting has a lot of benefits over traditional dedicated servers from speed of provisioning to instant scalability and high availability. While there are currently applications (primarily at the high end) that aren't suited to the cloud, this is likely to change in the near future as more businesses demand to outsource their computing resources.

More info: www.4DHosting.com

connect • monitor • manage

EMULEX®



NEW High Performance Networking for Enterprise Virtualisation and the Cloud

Great migrations in IT—cloud, big data and the race for web-scale IT. It's all about business agility!

- Concerned about the pressure to reduce operational and capital expenditures (CAPEX and OPEX) conflicting with the need to provide scalable virtualisation and applications?
- Worried about increased need for application acceleration?
- Need to improve on operational efficiency?

Look no further than Emulex's latest OneConnect® 10Gb and 40Gb Ethernet Adapters.

Connectivity, virtualisation, hybrid cloud, convergence, high performance application delivery from Emulex

Emulex's latest generation of OneConnect high performance Ethernet connectivity solutions for virtualised, enterprise and cloud data centres enables higher virtual machine (VM) densities, supports secure hybrid clouds with overlay networks, leverages a low latency architecture to deliver application acceleration and provides an open application performance interface (API) that integrates with the next generation of software-defined networking.

1 **Adaptable and future proofed cloud architectures**
Pervasive support for software-defined solutions and multi-tenant cloud technologies

2 **Fast, secure, high performance application delivery**
Accelerated and offloaded support for cloud scale and big data applications

3 **Optimised for data processing and analytics**
Heterogeneous application and data store support

The Right Choice for your networking needs – Today and Tomorrow

NETWORKcomputing AWARDS 2014 ★ WINNER ★ COMPANY OF THE YEAR

www.emulex.com/oce14000-10gbe

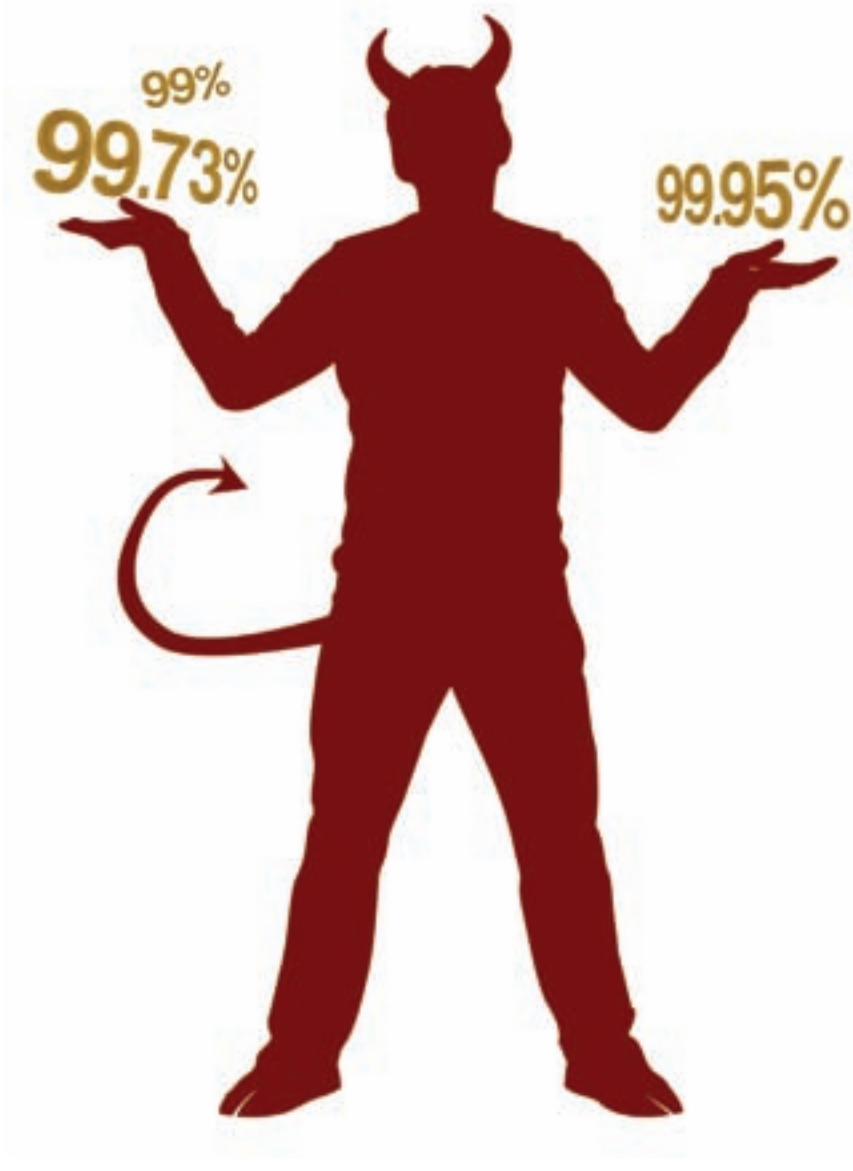
www.emulex.com/oce14000-40gbe

www.emulex.com

14-0946E-A4 · 4/14

Cloud SLAs: the devil is in the detail

Public cloud provider SLAs should focus on much more than just an uptime percentage guarantee, argues Andy Lancaster, Director of Cloud Services, Dimension Data



Currently, more than half (53%) of enterprises are running internal web applications in the cloud, while 48% are using it for client-facing web applications, according to an independent research study undertaken by Vanson Bourne and commissioned by Dimension Data of 200 CIOs and IT directors in the UK CIOs.

The cost-saving, efficiency and time to market benefits of the cloud are well known and these are driving and will continue to drive the business case for cloud adoption. However, selecting the right cloud services provider is complicated by how different providers define their service level agreements (SLA) including how uptime is calculated, what constitutes failure under the SLA, and the penalties for SLA violation.

SLAs are key to protecting the buyer by holding the cloud provider to a contracted delivery time of cloud application service and performance, yet, the same Vanson Bourne survey found that 65% of the survey respondents admitted they are not 100% clear on what constitutes a failure or violation of their cloud service provider's SLA.

Any business adopting cloud services must carefully consider and negotiate cloud SLAs before entering into any contract to ensure that its cloud applications, and hence its competitiveness and

"The 'x nines' SLA for uptime is usually the first cited and least meaningful part of a cloud provider's SLA. Nevertheless, it is the first key point of an SLA to identify when evaluating your options. Many popular cloud providers today offer 99.95%, so look for a vendor who offers 99.73% for both server and networking." - ***Andy Lancaster, Director of Cloud Services, Dimension Data***

performance, are adequately protected.

CLOUD ADOPTION STILL GROWING ACROSS ALL MODELS

Businesses have shown that they have put their faith in the cloud model for business transformation and agility. According to the Vanson Bourne survey 76% of IT leaders said their organisation has purchased private or public cloud infrastructure-as-as-service (IaaS), 49% have public cloud software-as-a-service (SaaS) or platform-as-as-service (PaaS) and 25% have hybrid cloud IaaS.

THE IMPORTANCE OF SLAS

A major consideration for every buyer of public cloud computing services is SLAs. When purchasing cloud services, 95% of the respondents in the above survey see cloud SLAs as a priority, with 55% considering SLAs upfront in the process. SLAs are key to protecting the buyer by holding the cloud provider to a contracted delivery time of cloud application service and performance. These are especially critical as service outages can have a negative impact on the business. Outages disrupt the delivery of key applications and software, and can weaken the quality of a client's experience with a business's product or service.

However, 65% of respondents admitted they are not clear on what constitutes a failure or violation of their cloud service provider's SLA. Almost all IT leaders (97%) felt that cloud SLAs are difficult to decipher to some degree.

WHY A CLOUD PROVIDER'S ARCHITECTURE IMPACTS SLAS

The public cloud is being used to deliver all types of business critical enterprise IT applications provided the cloud provider maintains a high performance architecture. Architecture can significantly impact performance of processing, memory access, file I/O and network throughput which, in turn, provide secure and reliable SLAs. Cloud services that enable network control are easier to secure and can be higher performance than "best effort," server-centric cloud competitors. By allowing configuration at the networking layer and network-based security, network-centric cloud providers also deliver strong, enterprise-class performance.

THE DEVIL IN THE SLA DETAIL

Knowing what to look for in an SLA is vital to being able to measure and compare cloud providers and models. Traditionally, buyers have done this by requiring a minimum of "three nines" for their uptime guarantee (99.9%). 69% of CIOs, according to the survey, believe the most important measure of a cloud service provider's SLA is a 99.9% guarantee for

minimum server uptime (8.7 hours downtime per year), while 59% expect a 99.9% guarantee for minimum network availability. However, oftentimes, SLAs cannot be simplified into a number of nines.

Many businesses find that the committed uptime percentage and areas of coverage should only be the starting points of their SLA agreement. The devil really is in the detail. There are a number of questions to ask and details to confirm with any provider's SLA. Outlined below are the most common considerations.

WHAT LEVEL OF UPTIME IS THE PROVIDER COMMITTING?

The 'x nines' SLA for uptime is usually the first cited and least meaningful part of a cloud provider's SLA. Nevertheless, it is the first key point of an SLA to identify when evaluating your options. Many popular cloud providers today offer 99.95%, so look for a vendor who offers 99.73% for both server and networking.

HOW IS UPTIME CALCULATED?

SLAs are typically calculated monthly and are based on the period of a client's downtime, or service unavailability. This is a relatively standard policy across public IaaS providers, although businesses would be advised to read the small print carefully as some well-known providers take a far different approach to this calculation.

Instead, some use an annual uptime calculation of their platform, assuming that the service achieved 100% uptime for the previous 12 months (before the client signs on as a customer).

WHAT DOES THE SLA COVER?

There are usually five key areas for SLA applicability. The continuum ranges from facility and hardware-level SLAs, which are the least meaningful and most prevalent, to application level SLAs, which are the most meaningful and least common among IaaS providers.

Outlined below are the five areas:

- Facilities level (space and power)
- Hardware level (the underlying physical architecture)
- Operating system (OS) level
- Platform level (for Platform-as-a-Service)
- Application level (for Software-as-a-Service and public cloud providers coupling managed services with their IaaS).

Public cloud SLAs most commonly cover availability, not performance, to the hypervisor level, meaning that if a business corrupts its operating system environment, it is responsible for fixing it, or deleting the server and starting over. The provider is typically responsible for ensuring that everything below the hypervisor is available to their users. Some cloud providers also offer an SLA for application delivery, though this typically requires some managed services agreement.

WHAT CONSTITUTES FAILURE UNDER THE SLA?

The fine print of an SLA is often the best indicator of how, and how often, the provider expects their service to fail. For example, if a provider requires their clients to build in 2+ availability zones, and both zones have to fail before the SLA is violated, this indicates that the provider expects single zones to fail. There is much more to a provider's cloud SLA than simply an uptime percentage guarantee and it's important that businesses look to those that can help them run through the detail with a fine-toothed comb on their behalf.

WHAT ARE THE PENALTIES FOR SLA VIOLATION?

After some threshold of downtime has been reached, most cloud providers will commit to refund a percentage of the fees paid for a given period of time (generally monthly). Businesses should be certain to carefully compare the time durations and associated percentage of fees the provider agrees to refund in the event of an outage.

ARE CLEAR SLAS AVAILABLE ONLINE?

When evaluating cloud service providers, look for those who give access to SLAs and who are transparent in what they do and don't offer. Often, these providers will publish their SLAs online for optimum transparency.

CAN THE PROVIDER HELP WITH FUTURE CLOUD NEEDS?

With changing business needs, and a growing case for hosting business critical applications in the public cloud, buyers should look for a provider who can cater for their present and future business needs by offering public and private cloud solutions. Similarly, businesses should look for a global provider that supports multiple geographies as will help scale services as the business expands across regions.

LOOK BEYOND THE NINES

As is demonstrated by the examples above, there is much more to a provider's cloud SLA than simply an uptime percentage guarantee, and savvy businesses need to investigate their options and vendors carefully. The key to doing this successfully is to understand the details of the SLA: what is covered; the definition of downtime; and penalties. Additionally, buyers should understand how the architecture of a cloud provider's offering impacts security, control and SLAs. Be especially mindful of server-centric and network-centric cloud models against the above SLA considerations. More often than not, they will find that the network-centric cloud model offers stronger, more reliable SLAs to protect the long term delivery of business critical applications in the public cloud.

More info: www.dimensiondata.com

Performance Is Nothing Without Endurance

SanDisk portfolio of CloudSpeed SATA SSDs are designed with a wide range of capacity, endurance and optimized for read-intensive, mixed-use and write-intensive application workloads in enterprise and cloud computing environments. Leveraging SanDisk's proprietary Guardian Technology™ Platform, proven power fail technology and 19nm MLC NAND flash, SanDisk CloudSpeed SSDs offer all the features expected from an enterprise-class drive at the right value.

To learn more please visit http://www.sandisk.com/enterprise

SanDisk Corporation,
Unit 100 Airside Business Park,
Swords,
Co. Dublin,
Ireland

SanDisk®

Smarter than the average cloud

Getting the best out of a SaaS approach should not mean putting all your eggs in one basket, argues Tony Cheung, CTO at EASY Software

Everywhere you turn these days you hear someone talking about SaaS (software as a service) - also sometimes referred to as 'software on demand' - but where does the hype stop and the reality begin?

Software as a Service (SaaS) basically makes use of a cloud computing infrastructure to deliver one application to a number of users, regardless of where they are located. It has the advantage that activities can be quickly configured, have a lower cost of ownership and have the ability to be accessed/managed from all locations.

Everyone may be talking about SaaS and cloud, but what is the real state of play? Well I think we can safely say that the cloud has beaten the sceptics when SAP, a heavyweight in enterprise software and software related services and which is used by global companies to manage their ERP (enterprise resource planning) tasks, is extolling the virtues of cloud and SaaS as the way forward.

This all sounds great; having SaaS solutions reside in the cloud, providing companies with a scalable solution that can be integrated with other SaaS offerings. But look a little closer and you will notice a big glitch - and that, my friends, is the internet itself. If you resolutely rely on an internet connection to the cloud and have parked the bulk of your company's IT resources there - then that is where you have swallowed the hype and the cracks creep in.

There is a huge list of reasons why you should look at the cloud. You only have to look and see that the big names in software, such as Microsoft, have rapidly adopted the cloud ethos. As a result, it is pretty near the top of every CIO agenda - or should be. It offers an innovative and flexible way of working with technology in terms of Capital Expenditure (CAPEX) and Operating Expense (OPEX), offers speed of deployment, economies of scale and streamlines processes - the list goes on.

But before you decide to put all your company thinking in the cloud you need to make some careful considerations. Why? Because when you scratch the surface, cloud isn't all it appears.

For example, SAP have a great cloud offering, called HANA, which provides functionality for planning and business analytics. But take note: its reference customer, an $18 billion food corporation uses it - but on premise.

PARKING ALL YOUR ASSETS

I therefore think that when considering cloud, you should never actually park all your IT assets there. Do you really want to put all your valuable business assets in a place which is connected by what can be a fracturable line? Who then becomes responsible for managing your corporate assets?

It is also important to note that you can't put all your data in the cloud, even if you really want to. Consider why you invest in ECM/DM (Enterprise Content Management/Document Management), for example. It is for documents and records which were formed from your customers, suppliers or from your ERP. But you need to hold onto this information for years and years and in a compliant fashion too.

This suggests that a hybrid solution is the way forward: the co-existence of a strategy that couples Cloud computing power and on-premise architecture. You should not feel pressurised into choosing one route or the other.

HYBRID CLOUD

The concept of hybrid cloud computing is nothing new. It was being discussed way back in 2008. Back then, to the purists, the concept of using cloud

"Hybrid cloud provides you with the security and customisation potential of an in-house solution with the affordability of external systems. It puts you in a great position to manage your company's data, whilst allowing you to be agile and lower your management costs."

coupled with traditional computing platforms seemed odd. "Hardly moving with the times", they said. "Not cutting edge thinking". Kick on six years, and the tables have turned. Hybrid cloud is firmly back on the agenda and seen as a very valid option for many organisations as they look to mix and match public cloud with their local IT assets to get the best value from their IT budgets.

Hybrid cloud computing basically offers a cloud computing environment in which a company provides and manages some of its resources in-house, and others externally. It may, for example, use a cloud service for processing transactions, but continue to use in-house storage for operational customer data and sensitive information.

The hybrid approach to cloud computing enables a company to take advantage of the scalability and cost-effectiveness of the cloud environment, without exposing any sensitive or key data to any vulnerabilities that arise from storing long term data with a third party. Hybrid cloud provides you with the security and customisation potential of an in-house solution with the affordability of external systems. It puts you in a great position to manage your company's data, whilst allowing you to be agile and lower your management costs.

It is important to look at configuration management, security, and how potential problems can be detected, isolated and resolved when planning a hybrid cloud computing strategy. Hybrid cloud offers more fault tolerance as you still benefit from the local usability of your private network that can look after any problems in your public connectivity.

You also need to consider how employing two systems will change the way your organisation works. Work out how using cloud and private data centre principles can enhance the way your company works and help you reach your business goals and start from there.

Sure, harness the power that cloud computing offers, but don't be misled into thinking that cloud can simply replace working with paper, scanning, saving and archiving documents and other physical materials in your business that is secure and, in many cases, provides compliance.

LONG TERM STRATEGY

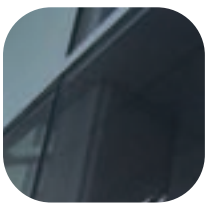
You will need to adopt this strategy in the long term - as this is where the transactional records and back-ups reside that you, your customers, auditors and regulators will require a trail back to.

The very existence of hybrid cloud computing validates the fact that not all IT resources should or can exist in public clouds - and let's be real, some may never exist there. You only have to consider compliance issues and security requirements to see that local solutions are still a fact of life for organisations.

The hybrid cloud computing model, in my mind, gives us a greater understanding through experience of what can be stored in the cloud and what needs to reside locally or within your countries' borders. The old saying 'don't put all your eggs in one basket', has never been as true as when it comes to the whole cloud debate.

The road to hybrid cloud computing will undoubtedly lead to organisations extending initial cloud services, adopting more SaaS application capability and increasing connections to core back-office systems and data. Whilst this may happen it also ensures that companies are looking after their critical data in-house and not simply sending all their data into the cloud because they have been told by IT sales it is the 'on-trend' way to go outside the firewall - only to find it may not be all as it seems when they come across an incident of data loss, fraudulent access or denial of access.

Hybrid is the way we need to address the use of applications and services in the short term, if not further into the future. The benefits can be great if instigated properly. Of course recognise the fact that cloud is here to stay, but also be aware that trusting the entirety of your company's precious business data on a public cloud is not the best option. Ignore this nugget of advice, if you can afford to put the entire company at risk.
More info: www.easysoftware.co.uk



Bundles of joy

Parallels Automation and APS are enabling the digital division of Spanish telecoms giant Telefonica to provide a flexible cloud services platform to its local businesses, helping them modernise their SMB offerings, reduce customer churn and drive growth

With over 270 million connections in 25 countries, Telefonica is one of the world's largest telecoms service providers. Telefonica Digital is the business unit responsible for providing resalable digital services to its local country organisations, including Machine-to-Machine (M2M), eHealth and cloud services.

In 2013, Telefonica Digital was looking for an optimal technology platform that would enable country organisations to deliver cloud services to SMB customers quickly and easily. Telefonica Digital selected Parallels Automation as its cloud service delivery platform, thanks to its fast implementation, flexibility, scalability and openness, and the richness of the Parallels partner ecosystem.

After an implementation period of just weeks, Telefonica Digital is rolling out its Parallels Automation-powered cloud services platform, featuring Microsoft Office 365 and a cloud backup solution, to Telefonica's European operating companies. More countries and services will be added throughout 2014. As a result, Telefonica will soon be delivering country-specific bundles of traditional communications services and cloud-based applications to its SMB customers around the world.

CUSTOMER EXPERIENCE WRAPPED UP

Telefonica has always been confident that existing and prospective SMB customers are keen to expand the range of services they consume, if those additional services are easy to access and have clear benefits. However, the best way of approaching this opportunity was not always so obvious as Tim Marsden, Head of SaaS at Telefonica Digital, explains. "Telefonica has been offering cloud applications to SMBs for some time. We recognised that to achieve greater success, we needed to create compelling, bundled SMB offerings that combine cloud services, our core communications services and devices, and which are tailored to specific countries and customer types.

"We needed to find a technology platform that could help Telefonica deliver differentiated cloud services with simple and fast access to the best services, wrapped in an outstanding customer experience."

However, Marsden and his fellow decision makers had several key requirements that any cloud services provisioning technology and/or partner would have to fulfil, in order to meet Telefonica's needs. "We were looking for a partner and a platform that could be launched in a number of countries very quickly; provide an accompanying ecosystem of service providers and applications to ensure local market differentiation; and support rapid expansion," adds Marsden.

"We recognised that to achieve greater success, we needed to create compelling, bundled SMB offerings that combine cloud services, our core communications services and devices, and which are tailored to specific countries and customer types. We needed to find a technology platform that could help Telefonica deliver differentiated cloud services with simple and fast access to the best services, wrapped in an outstanding customer experience."

While assessing a number of alternatives, Telefonica Digital was running an installation of the Parallels Automation system together with Telefonica's cloud hosting subsidiary, Acens. Great results, and a wealth of positive feedback from Acens (which had used the platform to successfully migrate 400,000 users from hosted Microsoft Exchange to Office 365), were key to a decision being made in favour of Parallels Automation.

THE STATE OF THE ART

Parallels Automation is a hosting and cloud services delivery system used by hundreds of service providers worldwide, from the largest telecom operators, to top hosting firms and providers of vertical solutions. Parallels Automation combines software with access to thousands of hosting and cloud services. Not only that, it's backed by the expert professional services and support required to help telecoms operators and a wide range of other web hosting companies build a highly profitable cloud-based revenue stream. As such, it provides a state-of-the-art platform that is enabling Telefonica's country businesses to sell cloud services to their SMB customers via their own instance of Telefonica Digital's Parallels Automation infrastructure. Each country organisation can manage its platform autonomously, and even replicate it for local channel partners.

APS, an open standard founded by Parallels, is the industry standard for packaging and automating the delivery of applications and infrastructure as services. It enables providers with platforms that contain an APS controller such as Parallels Automation, to deploy applications and services far more quickly and cost-effectively than would otherwise be possible.

Telefonica Digital set Parallels an extremely challenging implementation target; to have a Telefonica-branded Parallels Automation platform featuring Microsoft Office 365 up and running by December 31st 2013, despite the contract only being signed in mid-November. "Thanks to the commitment of the Parallels team, the deadline was met with time to spare, and we are now rolling the platform out in Europe." confirms Marsden.

BUNDLE OF BENEFITS

Parallels Automation is helping Telefonica Digital to:

- Enable local Telefonica country businesses to grow by offering a broad range of cloud services to existing and new SMB customers
- Easily broaden its service offering by leveraging APS for easy, fast integration of new services onto the Parallels Automation platform
- Enhance the 'stickiness' of Telefonica's local offerings from a customer attraction and retention perspective
- Increase sales and share of wallet (average revenue per user) for Telefonica local businesses through the creation of attractive, country-specific cloud services bundles.

"The Parallels Automation platform makes it easy for country organisations to create the right bundles of cloud services for SMBs in their markets," says Marsden "This flexibility, combined with ease of use, straightforward management and the simple integration of new services makes it a powerful driver of competitive advantage for Telefonica, because it means we can get new cloud services to market quickly," he adds.

Speaking about the future of the partnership between Telefonica Digital and Parallels, Marsden concludes, "We have been very impressed by the commitment shown by Parallels in making their offering relevant and effective for telecoms operators. Their willingness to adapt their solutions to our requirements, however complex, delivers real value for us. And you can see that other telcos share this opinion, given their increasing presence at the Parallels Summit every year. We are very much looking forward to working more closely with Parallels to maximise the value of the Parallels Automation solution, APS and the unique Parallels ecosystem of partners, ISVs and service providers for the benefit of Telefonica's local country businesses."

More info: www.parallels.com

Keeping up with the demands of your data

Optimising the WAN has become essential for accessing, analysing and migrating large volumes of data to and from the cloud, argues Tony Thompson, VP of marketing, Silver Peak

As the adoption of cloud computing continues to rise at an exponential rate, it has become crucial that organisations stabilise the underlying network in order to support the growing volumes of data. With organisations often unaware of the debilitating effect that large volumes of data can place on the underlying network, particularly when replicated or shared across a wide area network (WAN), it can create numerous obstacles. This can lead to business-critical applications being jeopardised and money being wasted on applications that will simply not be used to their full potential.

WAN CHALLENGES

Transferring large volumes of data across the WAN poses significant challenges. First, network stability and geographical distances have a large part to play in the success of IT initiatives and data migration. The farther away the data centre is, the more latency it has to deal with and the longer it will take for the data to be transferred.

Insufficient bandwidth can also mean that data transfer will take an excessive amount of time. Bandwidth is often limited and costly, and in the use of MPLS and Internet VPN connections to the cloud can result in packets being lost in transit or being delivered out-of-order. The average large enterprise upgrades bandwidth approximately every two years to accommodate data growth and an ever-increasing desire to extend LAN-like performance out over the WAN. However, this is both time consuming and costly, and does not always address application delivery problems brought on by latency, packet loss and other common issues. Organisations need to tackle the underlying network infrastructure challenges that hamper key business applications instead of continuing under the illusion that adding additional bandwidth will solve everything.

The third hurdle in moving large volumes of data is velocity. With growing amounts of data and skyrocketing analysis requirements, incoming data must be analysed as quickly as possible. If the transfer and analysis time takes too long, it is possible that the resulting analysis of the data will be stale and outdated by the time everything is finished.

CONQUER THE CLOUD

If you are using the public cloud to host applications and data, and you happen to be located in the same city as the cloud service provider's data centre, you shouldn't have a problem accessing and moving data. But this is an unlikely scenario as enterprise users are often distributed in different parts of the world and you will often not know where the cloud data centre is located.

Optimising the WAN thus becomes essential for accessing, analysing and migrating large volumes of data to and from the cloud. WAN optimisation techniques that incorporate byte-level deduplication to eliminate redundant data, packet-order-correction to improve network quality, and accelerated IPsec encryption, mean that organisations can improve cloud performance exponentially.

With cloud computing gaining momentum and the amount of data expected to rise, it is essential that network managers ensure they have the optimum conditions for the data to be on-boarded, accessed and secured as efficiently as possible.

Organisations are becoming increasingly overwhelmed with data, and simply introducing more storage or adding additional bandwidth will not help. By taking a network-centric approach, organisations are able to achieve maximum scalability and the flexibility needed to cope with the growing volumes of data and emerging applications such as cloud computing, thus ensuring they are able to enjoy the full business benefits these have to offer.

More info: www.silver-peak.com

onelogin

Enterprise Identity Management

- SSO for web, mobile and iPad
- Active Directory / LDAP Integration
- User provisioning with entitlements
- Out-of-band 2FA
- Fine-grained policy controls
- Identity and access governance
- Federated Cloud Search

Over 700 enterprise customers in 35 countries across the globe trust OneLogin...

NETFLIX · CONDÉ NAST · Steelcase · News Corporation · PBS · WestJet · yammer · HAIL · zendesk · GoPro · London Chamber · Gensler

Signup for a Free Trial at OneLogin.com

Call +44 (0) 118 328 716

Why OneLogin?

- Responsive customer support
- Deploys in minutes, not months
- Covers 3,000 web apps
- Improves worker productivity
- Supports complex environments

"As I looked to extend our security perimeter to the cloud, I wanted a solution that provided the requisite control, while still seamlessly existing in Netflix's Freedom and Responsibility culture. OneLogin provided a streamlined path to that requirement."

Mike Kail
VP of IT Operations
Netflix

NETFLIX

From the ethereal to the physical

Arron Fu, VP of Software Development, UniPrint, discusses ways to remove the diverse obstacles to enterprise printing via the cloud

Printing and the cloud are seemingly at opposite ends of an organisation's infrastructure spectrum. Printing remains one of the last bastions of an organisation's infrastructure that cannot be completely virtualised since the whole point of printing is to take something virtual and make it physical. The cloud allows businesses to be more efficient and printing should be one of those business processes, in fact, it's arguably one of the most basic business process that could be simplified with the cloud.

The big benefit of cloud printing is that it drastically simplifies intra-organisational printing structures and flattens the complexities of coordinating hardware across a widely distributed system of computers. Of course, not all cloud printing is created equal, and - as with any new technology - the cloud brings with it a slew of new challenges. Among these are the differences between public and private cloud printing and the ease of implementation to achieve these benefits. Figuring out these differences is central to understanding how to successfully implement a cloud-printing solution for your organisation.

DANGEROUS DRIVERS

Cloud printing is particularly useful for large organisations with complicated computer network infrastructures such as government departments, financial corporations, and healthcare companies. Many of these institutions connect hundreds (if not thousands) of devices and printers, sometimes across multiple locations. As work becomes more mobile, an employee may need to print from multiple locations in different parts of a building or of a country. Struggling with installing different printer drivers each time that an employee needs to print from a new printer is not just annoying, but also time-consuming and a drain on productivity.

Public cloud printing services can smooth

"The particular security concerns of government agencies, financial corporations, healthcare providers, and other security-sensitive institutions make public cloud solutions impossible. Private cloud printing solutions, on the other hand, are complex puzzles that are difficult to administer. The right solution must be implemented to effectively address the complicated infrastructures of institutional printing while also ensuring that user access to printers is as easy and secure as possible. Without that, cloud printing would just replace one problem with another."

out some of this chaos. They connect printers to the web so that they can be accessed from anywhere and at any time from web-connected devices. Instead of installing unique drivers for every new printer, you could print from anywhere, as long as both the printer and the device are linked to the cloud printing service. Even more, with cloud printing services, you could print from virtually any device that can connect to the service - including tablets and mobile phones.

OVER-SENSITIVE?

However, many times, organisations also have high levels of security concerns that preclude them from using a public cloud. And, the problem with many third party cloud printing services is that they use the "public" cloud. While these cloud printing options do simplify the printing process, all the print data must travel through the public cloud as it makes its journey from device to printer. This prohibits those organisations who deliberately do not use public cloud services for the express reason that it is public. Though some public cloud services have a privacy policy and a guarantee in place, many companies seek greater control and oversight of the sensitive data they handle. Moreover, these organisations are also often large enough to merit their own clouds. As such, they prefer to create in-house private clouds so that they can leverage the advantages of cloud services while also maintaining their own security over sensitive data.

But implementing a private cloud printing solution has its own complications. Consider the infrastructure of government agencies as just one example. Every agency has its own structure for printing, each with active directories, and hundreds of thousands of users dispersed over wide geographic areas. Consolidating printing in this situation requires aligning all the printers, drivers, devices, and users within the system; something that can't be done easily or efficiently.

Even more, this system is routinely bogged down with driver updates creating a giant logistical headache. Every device needs to be updated for every driver update for every printer when the updates crop up. For the devices that don't have printer drivers? Those will never be able to print at all. As such, a great resolution to this organisational hazard is to deploy a universal printer driver solution that can seamlessly connect and manage all printers within complex enterprise environments.

LOCATION, LOCATION, LOCATION

Institutions on the scale of multiple government departments and councils, whether local or national, manage more printers than are easily handled in list form - though, truthfully, in comparison to public cloud printing, private clouds handle far fewer printers, which also makes them a better option for enterprises. Either way, the printers need a structure that ensures that users can identify the right printer without extraneous hassle. The structure should require as little effort on the user's part as possible, so this particular iteration of cloud services must keep the location in mind. Printers should automatically connect to whatever network makes the most sense (like the library in a university or the particular building a printer is attached to) so that only a few printers out of all the printers in the cloud get exposed to each user based on localities.

Cloud printing seems like a solution to this headache, that is consolidating the vast multiplicity of printers in large and sprawling institutions. However, this solution may create more problems than it solves in its implementation. Instituting cloud printing for many organisations is not as simple as ceding the reins to a public cloud service company.

The particular security concerns of government agencies, financial corporations, healthcare providers, and other security-sensitive institutions make public cloud solutions impossible. Private cloud printing solutions, on the other hand, are complex puzzles that are difficult to administer. The right solution must be implemented to effectively address the complicated infrastructures of institutional printing while also ensuring that user access to printers is as easy and secure as possible. Without that, cloud printing would just replace one problem with another.

More info: www.uniprint.net

Going global

Choosing the right cloud platform has enabled Asite to transform its business model and evolve from a primarily UK-based operation to a global one

Asite was founded in the UK in 2001 with a vision to offer hosted applications and solutions designed for the construction industry, and enable the country to build better, safer and more cost-effective buildings. Initially Asite focused chiefly on developing applications to streamline the process of procuring construction materials; however, it struggled to meet its profitability targets. All this changed in 2006. With a new CEO at the helm, Asite refined its strategy and set its sights firmly on growing its revenue and delivering even greater levels of business value to its extensive client base, many of which were driving large-scale, high-profile construction projects.

COST AND COMPLIANCE CONUNDRUMS

With the stage set for a new phase of growth and profitability, Asite needed to find ways to reduce its costs - specifically those related to application hosting. By now, the organisation had expanded its product suite. Its new range of applications, collectively known as the Adoddle platform, enables individuals to share information and build knowledge. It's used by some of the world's most demanding businesses and government organisations to help project teams work better together and streamline the sourcing, procurement and project management processes.

Asite was also seeking ways to reduce - or eliminate - the expense associated with obtaining compliance certification for regulations such as SAS 70 (now SSAE 16) and Sarbanes-Oxley. Says CEO, Tony Ryan: "Data security has always been a high priority in the architecture, engineering and construction industry; most firms take stringent measures to ensure that their intellectual property is protected. In addition, our clients in industries such as financial services and government also have rigorous compliance and security parameters."

SERVICE - GUARANTEED

Asite considered three hosted cloud services providers. After a thorough evaluation of each player, Asite opted to enlist the services of Dimension Data. During its due diligence process, Asite was impressed by the responsiveness of the Dimension Data team as well as the quality and robustness of Dimension Data's data centre facilities and, importantly, the security mechanisms it had in place. It also was comfortable that Dimension Data would enable Asite to honour the stringent service level commitments it had with its clients.

100,000 USERS, 4,500 BUSINESSES

It is now over seven years since Asite began the process of migrating its workloads to Dimension Data's Managed Hosting platform, a move which paved the way for the firm to begin operating on a global scale and evolve into a recognised leader in the corporate collaborative cloud solution market.

Today, Asite operates three data centres on the Dimension Data platform, serving over 100,000 end users for 4,500 clients. Asite's customers have used its applications to manage some of the most

high-profile and challenging engineering projects in the world, including the construction of Terminal 5 at London's Heathrow airport, Aviva Stadium in Ireland, and Dubai International Airport.

Applications Operations, part of Dimension Data's cloud solution, delivers proactive alerts, incident management and resolution, and database clustering. This reduces the burden on Asite's internal operations team and has enabled the organisation to scale its applications across the globe without investing in additional operations headcount.

The architecture of the Adoddle platform demands high levels of communication and replication among the organisation's three production sites. WAN acceleration technology is embedded within Dimension Data's cloud services, ensuring appropriate service quality and response times between the applications and production locations.

Says Ryan: "We've seen significant improvements in data transfer speed thanks to the WAN optimisation built into the Dimension Data cloud platform - today data speed is nearly 10 times faster than before. High speed data transfer enables us to deliver real-time collaborative working for our demanding global customer base and collaborative Building Information Modelling (cBIM) on our fully hosted model server. Our competitors in that particular space are just moving flat files while we're setting the state of the art for big data technology in the architecture, engineering and construction industry by enabling collaboration in the cloud for models comprised of hundreds of millions of unique data points."

Engaging Dimension Data to host its applications on its behalf has also eliminated the cost associated with obtaining regulatory certifications. Compliance and security are embedded in Dimension Data's cloud services. This has enabled Asite to pursue large global accounts with confidence, knowing that the all its prospects' stringent compliance requirements will be met.

"Our BIM competitors are just moving flat files while we're setting the state of the art for big data technology in the architecture, engineering and construction industry by enabling collaboration in the cloud for models comprised of hundreds of millions of unique data points."

TURNING GROWTH AMBITIONS INTO ACHIEVEMENTS

Since it teamed with Dimension Data, Asite has succeeded in turning its growth ambitions into achievements. Initially, Asite operated a primary site in the UK, with a disaster recovery site in the US. As the organisation became more successful and broke into the US market, it set up a second production site in the US.

Recently, Asite has made significant inroads into the Australian market. Initially, it served its Australian customers from its two existing production locations in the UK and US, using content delivery technology to reduce latency and allow images to be cached close to its Australian customers. However, this approach had its limitations, as the content delivery technology is less effective when one's running highly dynamic applications. As Dimension Data had a cloud hosting platform in Australia, Asite opted to set up a third production instance in this location, and move forward with its plans to grow its market share in this geography with confidence. With the backing of a solid technology platform, Asite is seeing exponential growth in the Australian market, something which contributed in no small part to the company's impressive 25.6% growth during 2013.

Asite has grown its revenues from USD 2.4 million in 2006 to USD 7 million today and it continues to expand its global footprint. The organisation has plans to more than double its revenues to around USD 15 million, over the next three years. "With the help of Dimension Data we've succeeded in creating a suite of stable and robust products; now we have our sights set on bringing their benefits to bear on an even larger customer base, particularly in the US," says Ryan. "We have a number of exciting global releases scheduled for 2014 which will enable us to target customers across all market segments - not just the architecture, engineering and construction industry - and win market share from traditional collaborative software players. Our ability to deliver this level of innovation is due in no small part to our partnership with Dimension Data."

Reflecting on Asite's seven-year relationship with Dimension Data and the business benefits that Asite has derived from the partnership, Ryan says: "We derived immediate cost savings by moving to the Dimension Data platform - around 30%, but that was just the start. With access to a stable, global cloud platform, we were able to transform our business model and evolve from a primarily UK-based operation to a global one. This has opened the door to fantastic new possibilities for growth and profitability."

More info: www.dimensiondata.com

Company cloud: putting SMBs in the driving seat

SMBs needn't sign-up to proprietary hosted software solutions to benefit from cloud flexibility, says Talal Choucair, CEO of MyQuickCloud

It's a dilemma faced by small business owners across the UK and beyond: should they put their trust and crucial business data in the hands of large software vendors - and will the potential benefits outweigh the risks?

The main reason many UK SMBs have yet to move their business applications to the cloud is because they are afraid it may create problems around data security. There are also concerns about the reliability of the systems and the impact that any connectivity failure may have.

Despite attempts by software vendors to persuade them of the flexibility and potential productivity gains - especially in terms of bringing remote access to shared documents and applications - reluctant SMBs still see the cloud as being too high tech, insecure and costly.

Worries around data security in particular tend to focus on loss of control and uncertainty about who can access their data if held outside the business. Similarly, if a small firm is entirely reliant on cloud solutions, it needs to trust both the third party hosting the application and the network provider to maintain its internet connection.

As such, a simpler and more productive alternative can be to cloud-enable existing IT systems, effectively creating a bespoke company cloud. Rather than having to adapt to a new way of working and train staff on how to use different software, this practical option allows even small businesses to extend the reach of existing systems simply by adding the capability to access the system remotely.

Unlike traditional remote access tools which essentially allow just one user to view their PC remotely, using the cloud to virtualise applications and user desktops allows multiple users to access business applications and desktops simultaneously - almost like an office extranet - enabling greater collaboration and improving productivity.

Equally, whereas previously users working from home or at a client's office would be unable to access centrally-managed accounting, CRM or stock management applications remotely, a self-hosted cloud provides rapid remote access for individual employees.

As well as supporting more flexible and remote work styles, this makes it much easier for users to collaborate with freelance partners or external consultants such as accountants, sharing information over the cloud and authorising remote access to key systems without having to waste time sending files manually or by email.

From a security point of view, the fact that connections are supported by a high level of encryption allows only authorised access and ensures that any remote activity is enforced against the existing office security systems. All aspects of the infrastructure are kept behind the existing security system - commonly a wireless firewall/router - using only outbound fully encrypted connections.

In essence, company data stays in the office and access rules remain unchanged, effectively making the IT infrastructure no more complicated or risky than it was before.

Loss of connectivity is also less of a problem with a company cloud model. If all the business apps are hosted in the cloud and the data can only be accessed via the internet, all office users are affected if the internet connection fails. In contrast, a self-hosted approach keeps the applications running on computers and servers that are in the office and the data on site. If the internet goes down, only remote workers will be affected and it is business-as-usual for everyone else.

With little upfront commitment or change to the existing infrastructure, this best-of-both-worlds self-hosted cloud approach is an ideal compromise for small businesses that can see the benefits of the cloud but are reluctant to adopt a fully-hosted IT solution.

More info: www.myquickcloud.com

ACCESS ALL AREAS

Cloud Hosting is now available in e-Newsletter form every single month

The interest in our newest specialist IT title has been astounding, and we've responded by introducing the Cloud Hosting eNewsletter - distributed to over 20,000 readers every month, featuring all the best content from the print edition and much more:

- **Up to the minute news stories and analysis**
- **Interviews**
- **Opinions and viewpoints from the industry**
- **Case studies**
- **White papers and other unmissable downloads**

To make sure you aren't missing out, register now at:
http://www.btc.co.uk/newsletter/register.html

G-Cloud: hitting the spot?

Public Sector ICT is a 14 billion GBP market, yet a recent report from the OFT suggests that there are still significant barriers to entry, particularly for SMBs. Can the much-vaunted G-Cloud approach work if it remains a 'closed shop' open only to a chosen few big suppliers?

When it comes to the cloud, it appears the UK government is prone to exactly the same 'niggles' as the rest of us, from the smallest SMB to the largest global corporation: public sector migration to cloud services has suffered as much as anyone from a combination of common issues - budget, security and compliance, and perhaps most worryingly, concern over legacy systems integration.

The G-Cloud concept was initially seen both internally and externally as 'an all encompassing government-wide computing platform' - and thus something requiring potentially huge investment. Now it is generally viewed as sitting somewhere between a tool for reducing procurement costs, and a strategic initiative with the potential to modernise the government's IT infrastructure. Cloud Hosting magazine spoke to a selection of industry experts to get their views.

The government is certainly giving the right signals to indicate that it's committed to the adoption of cloud computing, says Christian Nagele of CentraStage: the recent adoption of Office 365 by the Houses of Parliament being a good example of this commitment translating into real results. Nagele goes on: "The Government has repeatedly released figures showing that business to SMEs has increased. However, it is hard to gauge the amount of business that is filtering down to SMEs from the larger suppliers to government - many big technology suppliers are actively engaging more with SMEs in order to position themselves well with the Cabinet's Office's new dictat.

A fit for purpose G-Cloud government ICT strategy needs to take advantage of new technologies in order to deliver faster business benefits and reduce costs, whilst meeting environmental and sustainability targets and at the end of the day adoption of innovative tech into Government will be driven as much by the big IT service providers, as it will by G-Cloud."

"A fit for purpose G-Cloud government ICT strategy needs to take advantage of new technologies in order to deliver faster business benefits and reduce costs, whilst meeting environmental and sustainability targets and at the end of the day adoption of innovative tech into Government will be driven as much by the big IT service providers, as it will by G-Cloud." -

Christian Nagele, CentraStage

GETTING A FOOT IN THE DOOR

Louise Dunne, MD of G-Cloud listed supplier Auriga, believes the framework approach has been a success but there is still much to be done to make things better. Of over 150 million pounds of G-Cloud expenditure to April 2014, around 60% by both value and volume is believed to have gone to SMEs. Says Dunne: "Any organisation willing to go through the application process and comply with the requirements now has a chance of winning contracts. But the scales are still weighted. The G-Cloud sought to provide the reassurance and access necessary to connect with vetted SMB suppliers. But the open marketplace concept at the heart of the Cloudstore initiative has been compromised. Some of the largest suppliers are using SMB partners as little more than shopfronts to deliver services. Moreover, those same suppliers can afford to sell low with loss-leading services to get their foot in the door."

One of the main issues, according to Dunne, is high-level access to the Public Sector Network (PSN): SMBs are able to offer accredited services to the PSN community but must negotiate a complex range of processes and mandatory compliance, codes and accreditation requirements before being admitted to the community. Clive Longbottom of consultancy QuoCirca agrees that this is a concern: "Initially, the main framework providers were the large telecommunication companies: they have been trying to cling on to pushing the PSN as the main network for government. Although smaller players have been brought in and a few connectors have been built between the PSN and G-Cloud, it is still piecemeal and counts against a PSN network user plugging in easily to G-Cloud."

Richard Blanford of Fordway, another firm who've won several G-Cloud contracts, believes that a more basic problem arises from public sector organisations simply not understanding how G-Cloud works and what it can offer them: "Public sector buyers are risk averse and many tend to favour larger, more traditional and on-premise suppliers. Are they stifling the innovative ideas of their IT colleagues, perhaps because they worry it will mean less work for them? I believe the key to building trust in G-Cloud is to explain that it follows the same steps as traditional procurement: research into potential suppliers, RFI, RFP, supplier references and contract award."

GO FOR GOLD

In addition, argues Blanford, the UK public sector will also need to review its attitude to risk, with the benefit that by taking on greater perceived risk, by not purchasing the 'gold plated service', greater rewards or savings are achievable. However, he says, "The organisation starts from a much stronger position when using G-Cloud, as it already has a list of potential suppliers accredited to Government standards and approved as being agile, efficient and offering value for money. Significantly, those suppliers have already provided pricing information - which is not usually available until much later in the procurement process - so the organisation can compare services and prices at an early stage."

QuoCirca's Longbottom expands on this theme: "The purchasing departments within the public sector are just that - purchasers. They do not define what the requirements or the choice of equipment should be, but they do wield immense power over the final contracts. For them, it is better to go to a known source - the large incumbent vendors - and deal with them on known list-price discounts than to try and understand how a small company could provide the same or better service at a lower price - but with lower discount percentages. Being able to say to the relevant minister that they saved 20% on a $100m deal sounds so much better than being able to say they saved 5% on a £10m one for the exact same service."

Of course, the big systems integrators and technology equipment providers make a lot of money from the public sector. Clive Longbottom again: "It is in their best interests to carry on pushing for large bespoke

"The scales are still weighted. The G-Cloud sought to provide the reassurance and access necessary to connect with vetted SMB suppliers. But the open marketplace concept at the heart of the Cloudstore initiative has been compromised. Some of the largest suppliers are using SMB partners as little more than shopfronts to deliver services. Moreover, those same suppliers can afford to sell low with loss-leading services to get their foot in the door." - *Louise Dunne, Auriga*

projects where the cost of entry will be too high for SMBs to bid, and where G-Cloud would, at best, be only a small part of the overall solution. Whereas my personal view is that no technology project within government should ever cost more than £10m or last more than 6 months, we are still seeing multi-year projects being agreed at multi-hundred million or greater contract prices with the big guys. This requires a major change in thought process driven from on high within government. However, it is unlikely that the will is there - and too many contracts are already in place that will take us through to beyond 2020 anyway."

Databarracks' Peter Groucutt suggests that while G-Cloud has been successful in introducing a new way for buying for public sector IT, there is still a long way to go to really exploit the true opportunities: "The issues facing the G-Cloud framework are the same issues we were facing six months ago: lack of awareness amongst true public sector organisations and an overcomplicated, overcrowded CloudStore. At the Public Sector Show last year, the majority of people we spoke had little to no knowledge of G-Cloud or the CloudStore, with 83 per cent saying they hadn't yet made a purchase and weren't planning to in the future. Over 12 months on, and opinions aren't much different."

BREAKING THE OLIGOPOLY

As we've already established, G-Cloud was introduced to offer public sector organisations greater choice and flexibility than was previously available to them through what Groucutt describes as the 'oligopoly' of big SIs that has traditionally dominated the market. He continues: "Until the formation of the G-Cloud framework, selling services to the public sector was never something smaller providers were able to do, and SIs are taking advantage of that imbalance of power. Organisations will continue to buy their services the way they always have unless they are given tangible reasons as to why they should switch."

The issues are not all about attitudes, claims Groucutt; there are a number of practical problems with the way the framework operates: "We've heard from a lot of other G-Cloud suppliers who haven't worked with the public sector before that are surprised, and somewhat frustrated, at how bureaucratic the G-Cloud application process is. Unless providers on the framework start to see returns on their investments soon, we'll begin to see enthusiasm drop off quite sharply. The Search functionality doesn't work properly either, which means that when an organisation goes to search for a service it needs, they don't get back exactly the results they should. When that happens, they will most likely just revert to using the suppliers they are most familiar with."

Flexibility appears to be a recurring topic amongst commentators: the overriding feeling seems to be that G-Cloud as a framework is simply not quite doing what it is intended to do. The question is whether the issues can be resolved in a straightforward manner, or might they simply become one of those things that users have to get used to and work around?

Mark Keepax of ASG has tried to sell through G-Cloud and found it wanting, describing it as a procurement tool but not something that ultimately delivers a service to its user community. Keepax goes on to say: "While, from an audit committee point of view, it's been a great way of procuring applications and services, it's not really been able to facilitate the best or most flexible way of delivering systems - and that's where it's failed. If G-Cloud is left open to the big players alone it will continue to fail. If we look at the way the Ministry of Defence procures a new fighter plane or armoured vehicle, for example, it goes out to a very select audience. What you get back is a design by committee based around a limited section of capabilities, which never really address the problem they are supposed to solve. Essentially it locks out

"If G-Cloud is left open to the big players alone it will continue to fail. If we look at the way the Ministry of Defence procures a new fighter plane or armoured vehicle, for example, it goes out to a very select audience. What you get back is a design by committee based around a limited section of capabilities, which never really address the problem they are supposed to solve. Essentially it locks out innovation." - *Mark Keepax, ASG*

"Public sector buyers are risk averse and many tend to favour larger, more traditional and on-premise suppliers. Are they stifling the innovative ideas of their IT colleagues, perhaps because they worry it will mean less work for them?" - *Richard Blanford, Fordway*

innovation. Additionally, the time to market is so long from definition to delivery that what you get is something that is immediately three to five years out of date, because of the period it takes to get the product signed off."

G-CLOUD - THE NEXT GENERATION?

So what solutions do the industry see the many and varied issues surrounding G-Cloud? As ever, the proposed fix depends on exactly where we see the problem as lying.

Clive Longbottom of QuoCirca brings the argument back to the need to break the grip of the incumbent large SI suppliers: "It requires a strong and meaningful "G-Cloud first" dictat. The only way that incumbents should be being used is where an equivalent service cannot be sourced from the G-Cloud. Any proposal from an incumbent should break down into functional areas and show why each one could not be fulfilled by a G-Cloud provider. Some of this is nominally in place - without everything above being sorted out, however, it is just words on paper (or a screen)."

ASG's Mark Keepax agrees up to a point: "What the Government should be looking to is third generation workspaces, which go far beyond the second generation virtualisation and hosting options they are actually procuring through G-Cloud. It will then have access to products and solutions that are completely up to date, adaptable and far more flexible than G-Cloud can offer. Instead they will be provided solutions that offer a set of rules, self-governance, procedure and auditability that G-Cloud can never have."

Ultimately, QuoCirca's Longbottom suggests a far more radical re-think: "What is required is for government/local government strategy to be brought back into control of the departments. This will require the employment of top-notch project managers who can stand up to the big guys and, where necessary, throw them out where citizen value is not being obtained.

"In too many cases, government has absolved itself of the actual government strategy as well as the technical strategy: it should allow both of these to happen. If it had retained control of both, government would not now be spending £50m with Microsoft to support the outrageously out of date Windows XP desktop estate. Neither would it allow billion pound projects to be started - it would break them down into prioritised functional parcels - and ensure that each parcel was completed in the best optimised value manner possible. This means insisting on open standards, with fines where integrations between one project and another are not possible due to any supplier using proprietary mechanisms." Ch

Next year´s model

Cloud computing in data centres is on course to radically change the structure of the IT function, argues Roger Keenan, managing director of central London data centre City Lifeline

Cloud computing is one of the most significant changes to take place in the computing, data communications and data centre worlds over the last few years. In essence, cloud computing is remote hosting, with a user application running on someone else's virtualised servers in a remote location within a data centre rather than the user's own machine on his own premises.

While the concept of cloud computing is not new, it is still in its infancy, with many providers offering different and incompatible services in different ways.

NEW PARADIGM, NEW CHALLENGES

In general, applications which work well in cloud today are ones where data communications traffic is light and not particularly time critical, where security is important (and it always is) but not critical, where a new application can be written especially for the cloud implementation and where fast scalability gives a worthwhile benefit to the user.

Although cloud is continuously evolving, there are some areas which many organisations still steer away from putting there today. The biggest concern for all cloud users was originally security and this remains the case, in spite of strenuous efforts by software vendors.

If the organisation's mission critical computing and corporate intellectual property is on site or in a professionally managed colocation data centre, behind a corporate firewall, with known and trusted staff in control of it, management feels the risk of theft or unauthorised disclosure is less than if it is in another location, under the control of unknown staff who may or may not put the company's key interests first. If something goes wrong, the company's own staff will work through the night to put it right, whereas management may not trust an outside provider to deliver the same commitment. Perhaps those fears are not justified, but research continues to show they remain real.

Another area requiring much care is anything involving real time data traffic, such as voice telephony. Whilst it is certainly possible to run voice over the open public internet (Skype does it all the time), running it to a guaranteed and consistent level of quality is quite different. In such cases, users are better avoiding public cloud and sticking with known specialised colocation data centres, and especially the London colocation data centres with a wide range of carrier connections and experience, or going to a specialised provider of hosted communications, who will certainly be located in such a facility.

Like the introduction of any new way of working, cloud throws up unexpected problems. But the long term benefits are sufficiently high for both users and providers that, over time, most of the objections and barriers will be overcome.

CHANGING THE GAME

Cloud computing in commercial data centres is unquestionably the way computing is going and will continue to go. But some computing, IT and communications applications are more suited to cloud implementation than others. Choosing which to implement first, and which will work well in practice, requires skill and forethought, but will be rewarded with a steady, reliable migration, easier maintenance and lower operating costs. For many organisations, there may never be a full migration, as mission critical and security critical applications remain in house and other run remotely in the facilities of cloud providers.

The way in which organisations employ people has changed over the last fifty years. The model of a 1960's organisation was one where everyone was a full-time employee. Today it is one where the business is run by a small, tight team pulling in self-employed specialists and subcontractors as and when needed. Perhaps the future model for IT is the same - a small core of IT in-house handling the mission-critical operations, guarding critical data and corporate intellectual property and drawing in less critical or specialised services remotely, in real time, from cloud providers located in remote data centres as and when needed.

More info: www.city-lifeline.co.uk


THE STORRIES XI
JUNE 12th - 2014
VOTE NOW!
WWW.STORAGE-AWARDS.COM

Vectorworks® Cloud Services

…imagine the possibilities

What if you could store, synchronise and share your Vectorworks files in the cloud to make decisions from any location?

Now you can.

NEMETSCHEK Vectorworks

www.vectorworks.net/service-select/cloud-services

Distributed by

COMPUTERS UNLIMITED

3ddesign@unlimited.com
www.bimvectorworks.com
020 8358 6668

Associations we work with include the following:

NETWORK · RIBA · CPD PROVIDERS

buildingSMART

NBS