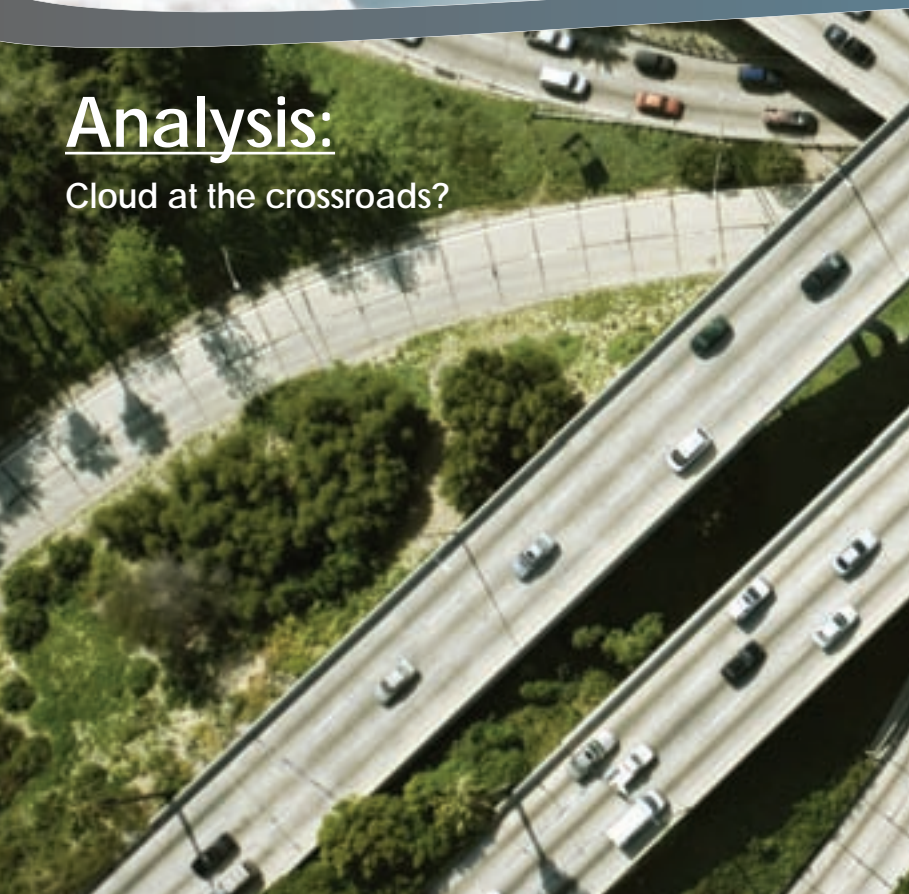


# Cloudhosting

Aug/Sept 2014 | [www.cloudhostingmagazine.co.uk](http://www.cloudhostingmagazine.co.uk) | £8.50 Where Sold

## Analysis:

Cloud at the crossroads?



## Safe and sound:

Secure hosted solutions



## The IP Crowd:

IP Expo 2014 previewed



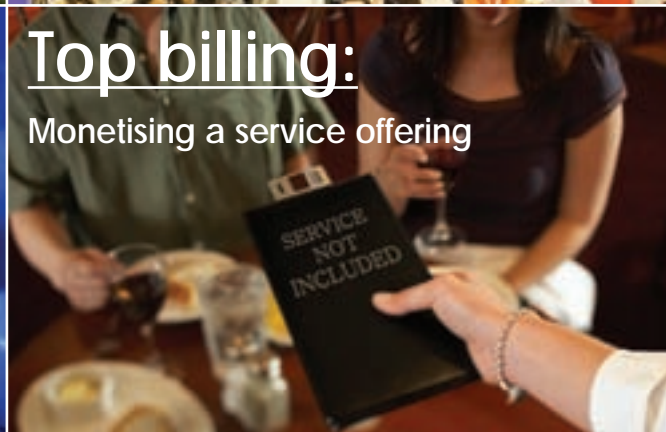
## Smart investment:

Private equity firm migrates to the cloud



## Top billing:

Monetising a service offering



## Impulse buy?:

Choosing a cloud service provider



# Contents



## Cloud at the crossroads.....10

No one group has all the expertise needed to create a perfect cloud environment - it needs expertise in application behaviour, data centre design, network and machine virtualisation, wide area networking and so much more. Getting this all working together calls for collaboration, and the CloudEthernet Forum can help to do it, says CEF President, James Walker



## Legal challenge.....14

Legal IT specialists Accesspoint have worked closely with Databarracks to deliver CJSM (Criminal Justice Secure eMail) connectivity in the cloud to east London solicitors Edwards Duthie



## Stop acting on impulse.....18

To meet business goals for agility, innovation, and growth, says Lynda Stadtmueller, Vice President, Cloud Services, Stratecast | Frost & Sullivan, enterprises must look for cloud providers that offer a range of services that meet today's needs and can grow with the business



## Top billing.....24

Cloud billing can make the difference between success and failure for a subscription based business, explains Louis Hall, CEO, Cerillion Technologies

## Editor's comment.....3

## News.....6

- Are cloud services providers ready to bare all?
- Node4 expands cloud offering with acquisition

## Online learning? It's child's play.....8

A VMware platform from iomart has proven the ideal environment for continued growth for UK success story zondle

## Dramatic license.....16

Unscrupulous software vendors could be taking advantage of their customers, suggests Martin Prendergast of Concorde Solutions

## The IP crowd.....20

October sees the return to London of IP EXPO, Europe's leading cloud and IT infrastructure event

## Keeping the customer satisfied.....22

Eagle Eye is using the Rackspace DevOps Automation service to manage a cloud-based infrastructure which supports its product network for offers, vouchers and reward transactions

## Show me the money.....26

Jamie Longmuir of SafeNet on how different approaches to software monetization can drive incremental revenue for ISVs via the Cloud

## Plotting a safe journey.....28

Andrew Carr, CEO of Bull Information Systems, offers a selection of Top Tips for 'getting there with Hybrid Cloud Storage'

## Smart investment.....30

SOF Investments has improved business productivity by migrating to the cloud after moving away from its parent company's premises

## V for Victory?.....32

David Barker of 4D-DC.COM on the pros and cons of virtual hosting compared with physical data centre management

## Setting the stage for cloud services.....33

International events company Richmond has 'right-sized' its business cloud services and gained additional flexibility

## Safe and sound?.....34

Liam Enticknap, Network Solutions Architect at PEER 1 Hosting offers advice on how to keep your cloud secure

# iomart

The Original Cloud Company

**OUR CLOUD • YOUR WAY**

Compute - Network - Storage - Security

0800 040 7228

[www.iomart.com](http://www.iomart.com)

# From the Editor

This issue of Cloud Hosting magazine includes a wide selection of what I'd broadly describe as 'opinion' pieces: editorial that is not so much about a technology approach or a specific success story, as about a strategic idea or a way of looking at the industry as a whole. With the cloud sector still so open to misinterpretation and confusion, it makes sense that we occasionally reiterate some basic principles and educate our readers where we can - even if it might sometimes mean we seem to be 'going over old ground'.

If there is one article I'd implore you all to read in this issue it is the piece from Lynda Stadtmueller of Frost & Sullivan's Stratecast division. It cuts through a lot of the obfuscation so beloved of IT types and breaks down the simplest of ideas: how on earth are we supposed to make a buying decision around cloud service providers? Different vendors use the same terms to mean slightly different things. Lynda argues that this means that end user businesses will end up 'dabbling' in different cloud deployment models with no underlying strategy.

As she says in her article: "The challenge for IT leaders is to select the providers and services that offer the greatest degree of flexibility, without creating administrative burden associated with managing multiple vendors. Clouds that utilise open standards may offer the ability to seamlessly perform critical 'inter-cloud' functions, such as bursting or backup and recovery, and enable developers to extend the functionality of your cloud services. Whether you decide to go with a single provider or several vendors that support interoperability, the key to a successful cloud implementation is to find a provider whose cloud portfolio is as flexible and varied as the workloads it may handle - today and into the future."

According to Lynda, the challenge for the enterprise is to identify a provider with a portfolio that supports the full range of potential environments (i.e. with different types of workload being situated in the best environment for them). More importantly, the portfolio should extend beyond today's vision and offer a foundation for your future cloud strategy.

It is never too late to step back and consider whether what you're doing now with regard to the cloud is the right thing for your organisation's overall business and IT strategy. Cloud is no longer being seen as a tactical 'quick-fix', but as an opportunity to transform your business.

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)

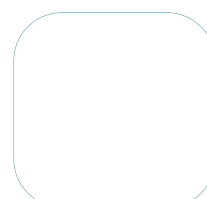
**DISTRIBUTION/SUBSCRIPTIONS:**  
Christina Willis  
(christina.willis@btc.co.uk)

**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.

No part of this magazine may be reproduced without prior consent, in writing, from the publisher.  
©Copyright 2014  
Barrow & Thompkins Connexions Ltd

Articles published reflect the opinions of the authors and are not necessarily those of the publisher or of BTC employees. While every reasonable effort is made to ensure that the contents of articles, editorial and advertising are accurate no responsibility can be accepted by the publisher or BTC for errors, misrepresentations or any resulting effects.



**DATA  
CENTRE  
EXPO®**

8-9 October 2014  
ExCeL London

# The **HOTTEST** news, insights and ideas that fuel the **data centre**

[www.datacentreexpo.com](http://www.datacentreexpo.com)

» The most comprehensive integrated analysis of content on how an organisation operates, protects and develops its data centre capabilities in the modern age.

» Discover how the rise of Big Data is impacting on the Data Centre

» 300+ exhibitors and 250+ free to attend educational seminars

» Hear from Sir Tim Berners-Lee,  
Prof Ian Bitterlin, Ian Cox and many more...

→ **Register NOW**   
[www.datacentreexpo.com](http://www.datacentreexpo.com)



Brand new for 2014, Data Centre Expo is Europe's only complete Data Centre Exhibition and Conference drawing together the complete line up of Data Centre Decision Makers and Influencers from Data Centre Managers and Facility Owners through to Enterprise IT and Information Security.

Offering a complete bricks to bytes view of the data centre the show will tackle the core themes across location, design, build, relocation, management and decommissioning topics. These themes are designed to provide an additional layer of consideration as data centre owners and operators evaluate their decisions.

Co-located at

**IPEXPO EUROPE**  
8-9 October 2014 ExCeL London

[www.ipexpo.co.uk](http://www.ipexpo.co.uk)

Sponsors

**CITRIX®**

 **FUSION-io**





**riverbed**

 **riello ups**

**Schneider**  
Electric

**VEEAM**  
IT JUST WORKS™

**vmware®**

## MANAGED CLOUD

Rackspace has announced a new managed service model for delivering public cloud services that gives businesses and developers the help they need to design, manage, scale and grow their cloud operations. In addition, Rackspace launched "developer +," a new programme for developers that offers essential services needed to build scalable applications. The programme enables developers to easily sample Rackspace Managed Cloud services and Fanatical Support.

"The cloud market is evolving. More customers are looking for a trusted partner with specialised expertise to help manage their cloud. Rackspace is ideally positioned to lead this Managed Cloud segment of the market," said Graham Weston, Rackspace co-founder and CEO. "Our new service levels will help businesses tap into the power of the cloud without the pain of recruiting experts in dozens of complex technologies."

Under the Managed Cloud umbrella, Rackspace has rolled out two managed service levels: Managed Infrastructure and Managed Operations. Both service levels feature more expertise at lower total cost than companies managing cloud operations on their own. In addition, monitoring and enabling customers to have real-time visibility into their infrastructure is an essential part of the Rackspace Managed Cloud strategy. Customers on both Managed Cloud service levels will now receive Rackspace Cloud Monitoring at no charge. For Managed Operations customers, cloud engineers will also watch the customer's monitors and respond 24x7 to alerts.

Customers on the Managed Operations service level will see SLA credits doubled, up to 100 percent of their fees for the affected components for that month's billing period. In addition, Managed Operations customers with planned high traffic events will be able to work with Rackspace to ensure that their Managed Cloud infrastructure is able to cope with traffic demands.

[www.rackspace.co.uk](http://www.rackspace.co.uk)

## NODE4 EXPANDS CLOUD OFFERING WITH ACQUISITION

Node4 has completed a strategic acquisition of LETN Solutions, a leading cloud infrastructure company. The acquisition will extend Node4's existing portfolio of cloud solutions allowing it to further its Infrastructure as a Service (IaaS), Disaster Recovery and Virtualisation service offerings. LETN is a Reading-based cloud infrastructure company. Since 2005, the company has offered managed support, professional services and hosting services to its customers.

By merging LETN's team and portfolio with its own, Node4 has enhanced its cloud offering by introducing LETN's evoCloud and evoPod services, which support packages such as Infrastructure as a Service (IaaS), Disaster Recovery and Virtualisation. Additionally, LETN is a NetApp specialist and one of only 18 qualified Authorised Support Partners (ASPs) in the UK.

The acquisition will see LETN's Reading office, services and employees become a part of Node4. All services currently provided to LETN customers will continue, and every customer will have the opportunity to take advantage of other Node4 services. This includes further cloud offerings as well as colocation, connectivity and communication packages.



Andrew Gilbert

Andrew Gilbert, Managing Director, Node4 commented: "This is a strategic acquisition for Node4 given LETN's capability and expertise around cloud computing. We have been placing increasing amounts of emphasis on our cloud-based solutions in the past year and this move reaffirms our belief in the opportunity cloud brings to our customers and the industry. There is a common belief in technology and customer focus that will provide great synergy between our two businesses. Furthermore, given our regional business model, LETN's location in the South is of great strategic benefit to Node4."

[www.node4.co.uk](http://www.node4.co.uk)

## HOSTED PRIVATE CLOUD FOR OPENSTACK MARKETPLACE

The OpenStack Foundation has expanded its popular OpenStack Marketplace vendor comparison site with a new Hosted Private Cloud category. One of the biggest advantages for OpenStack users is that there are many ways to consume the software, whether on-premise, in a service provider's data centre or as a hybrid model.

The OpenStack Marketplace was launched in May to give OpenStack users an open and transparent means to evaluate the full spectrum of OpenStack deployment options. The new Hosted Private Cloud category joins Training, Consulting

Services, Distributions & Appliances, Public Clouds and Drivers, so users can easily find and compare products that best meet their business requirements.

The new Hosted Private Cloud Marketplace category includes detailed information about offerings from Aptira, AURO, Blue Box, IBM, DataCentred, Metacloud, Mirantis, Morphlabs, Rackspace and UnitedStack. All products and services must meet specific technical requirements and be transparent with product information, such as OpenStack versions and capabilities supported.

[www.openstack.org/marketplace](http://www.openstack.org/marketplace)

## NEW MANAGED IAAS SOLUTION FROM HP

HP's new Helion Managed Virtual Private Cloud (VPC) Lean, is a new managed infrastructure-as-a-service solution that enables higher-quality service delivery and workload performance at a significantly lower cost. The new solution also allows organisations to reap the enterprise benefits of a managed VPC, such as a regionalised cloud for data sovereignty, low latency, compliance, high availability, security and a variety of continuity options, for a lower upfront investment.

"HP already offers a feature-rich industry-leading managed virtual private cloud offering for enterprise customers," said Jim Fanella, vice president, Workload and Cloud, HP Enterprise Services. "The new

HP Helion Managed VPC Lean now delivers a lower-priced alternative designed to enable clients to further optimise cloud workloads in the enterprise - while still providing superior, enterprise-class service and performance."

HP Helion Managed VPC Lean offers HP Account Support along with faster OS and application certification for cloud. It also enables additional enterprise services, including HP Management Services, SAP HANA Management Service and Database-as-a-Service, high-availability compute clustering and virtualisation, continuity services, and additional backup and retention options.

[www.hp.com/enterprise/cloud](http://www.hp.com/enterprise/cloud)

## KEEPING COMPETITIVE

Investment in IT and adoption of innovative cloud services is critical to staying competitive with new entrants to the market and increasing commercialisation, according to Richard Roebuck, managing director of specialist legal IT provider Accesspoint. A recent report compiled by legal IT specialists Accesspoint and secure cloud service provider Databarracks discusses how firms have begun to adopt business practices more typically seen in limited companies.

The report points to the arrival of the Alternative Business Structures (ABS) as the key driver of this change. "As we've seen with the banking sector, deregulation has brought innovation, new methods of service delivery and tapped into markets previously not considered. There is no reason why this wouldn't also be the case with the commercialisation of the legal sector," says Roebuck.

"In order to stay competitive in the era of 'Tesco Law', as major high street and consumer brands enter the legal market, firms will need to adapt to survive." Cloud services will play a central role in this transitional period, Roebuck comments: "Everyone now has access to the same platforms, software systems and online services, regardless of their size or budget. Firms that adopt cloud services will not be at a disadvantage technology-wise against the huge businesses entering the market.

"In fact, it will be the smaller firms that are more process-light that will be best able to squeeze the most functionality from their chosen IT systems, because they can architect an environment and culture rooted in solid best practice. Law firms are experiencing radical change. For a start, they're no longer in the legal "profession"; they're in the legal "industry". The adoption of business led practices is an important step to developing more commercially driven relationships with the IT services that firms use."

[www.databarracks.com](http://www.databarracks.com)

## ARE CLOUD SERVICE PROVIDERS READY TO BARE ALL?

Recent data from the International Data Corporation (IDC), which reveals that worldwide public cloud revenue reached £26.7 billion in 2013, is a good indication that cloud computing has reached mainstream technology adoption, and will continue to grow over the next few years.

However, recent reports that European ministers are looking into common rules for data protection mean CSPs are likely to be examined closely to determine how they handle the transfer of data through Europe and the rest of the world. If poor processes are found to be in place, then the potential for restrictive regulation could slow adoption and innovation. CSPs across the market should take steps to make services transparent and to have relevant accreditations in place, advises UK-based Outsourcery.

Barry Holder, Information Security and Compliance Manager at Outsourcery explains: "IDC has recently predicted that the cloud computing market will increase by 23 per cent by 2018, and while we agree that there is likely to be an increase in the adoption of cloud services, CSPs must be in a position to show exactly how and

where the data of their clients is handled and stored if they are to capture part of this growing market. This should already be a priority, but with the EU beginning to examine processes involving the transfer of data and the UK Government looking to pass the Data Retention and Investigatory Powers Bill it may be something that CSPs, and consequently end-users, could be impacted by if new legislation or regulations are announced."

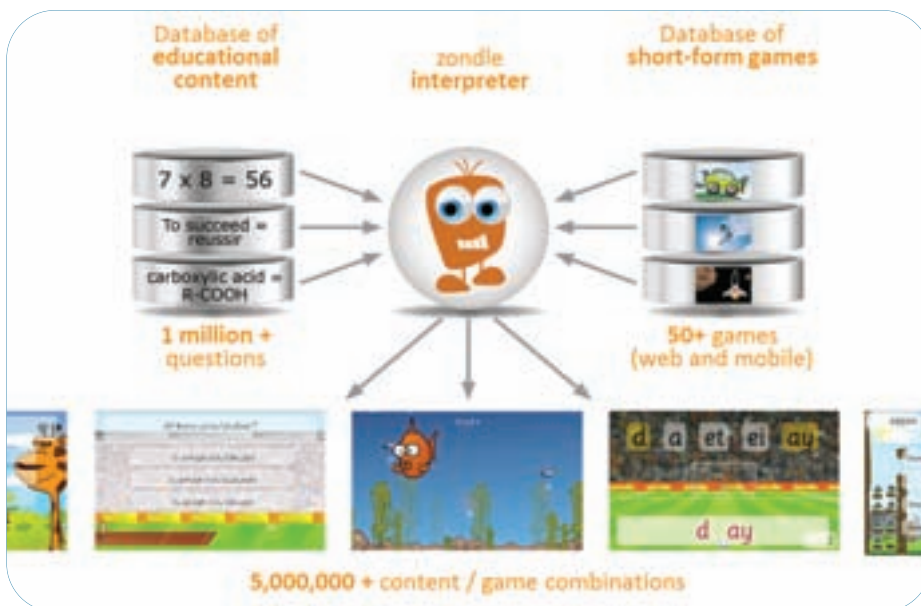
Holder continues: "In light of this, it is more important now than ever before for CSPs to make sure their services are transparent and to make sure they are certified against the relevant industry accreditations. The Cloud Industry Forum's Code of Practice is one example of a certification that enables CSPs to demonstrate that they meet specified standards around transparency, accountability and capability, whilst also giving CSPs benchmark best practices for how they should be handling information.

The ISO 27001 standard is also an excellent foundation for CSPs looking to understand the data they hold and implement the relevant Information Security controls.

[www.outsourcery.co.uk](http://www.outsourcery.co.uk)

# Online learning? It's child's play

UK success story zondle is a unique web and mobile platform revolutionising e-learning - but with demanding availability requirements. A VMware platform from iomart has proven the ideal environment for continued growth



Online learning is a big growth area and one which is harnessing the power of the cloud to deliver learning to people in all parts of the world. The worldwide e-learning market is expected to generate revenues of US\$51.5 billion by 2016 and while Western Europe and the US are already big spenders, Asia, Eastern Europe, Africa and Latin America are predicted to experience rapid growth over the next few years.

One area where e-learning is growing particularly quickly is education, where the use of online games is transforming how young people interact with their teachers and the

subjects they are studying. One company that is proving highly successful in this field is UK-headquartered zondle ([www.zondle.com](http://www.zondle.com)) whose innovative educational web and mobile platform will soon have almost one million users around the globe.

zondle is a unique web and mobile platform that enables teachers and students to create, play and share games to enhance teaching, learning and assessment. It is grounded in education and neuroscience research and is fully customisable to meet specific learning needs. It enables teachers to create games to match exactly their teaching aims and their

students' learning needs in any subject, at any level, and in any language - even those that go from right to left. While traditional teaching practice prioritises consistent rewards, zondle is based on research that shows that uncertain rewards help encode the information into long-term memory so when a student answers a question correctly in a zondle game they are only sometimes rewarded with extra gameplay.

## FROM AUSTRALIA TO ALASKA

zondle uses cloud and managed hosting specialist iomart to ensure high availability for its online games and other services which are being used by teachers and children from Australia to Alaska at any time of the day or night. iomart provides the scalable and flexible cloud services needed to support zondle using a cluster of VMware servers which enable the games to be published and accessed round-the-clock from any location with an Internet connection. The results are then stored and fed back to the teachers and students to help consolidate the students' learning.

At its technical core, zondle comprises two cloud-based databases and a unique interpreter. The first database stores a range of educational content (questions and reference materials) in a wide variety of formats such as multiple choice, label the picture and type the translation. Teachers then create questions to match exactly the needs of their particular



*"The aim of zondle is to be useful to teachers, who work in critical environments but often with difficult IT infrastructure. We have to do everything to ensure that zondle is always available, to make sure that we are the last website standing."*

students depending on the curriculum and the students' academic capabilities, or they can choose, customise or mash together any of the 2 million+ questions already created and shared by other zondle users - a real crowd-sourced approach to games-based learning unique to zondle.

The unique zondle interpreter combines these questions with more than 60 animated games from the second database, allowing the students to answer the questions, consolidate what they've learned in class, in any game of their choosing. Students can play on the website or an Internet enabled mobile device (iOS and Android), on the way to school in preparation for that day's classroom test and can swap between their favourites. This approach helps students to build towards automaticity of the learning content, while maximising engagement and giving them a sense of learning ownership.

#### 'ROUND THE CLOCK' BASELINE

The point of the zondle platform is that it has to have a global reach, be robust in the classroom and be highly scalable to cope with 1000s of new users coming on stream every day. As Ben Barton, CEO and founder of zondle, says, "The key thing is that our hosting has to be a 24/7 turned on service. We've worked with iomart at a variety of different levels to ensure that is our base standard."

zondle turned to iomart for a platform based on a cluster of VMware servers with one publishing server and a series of subscriber servers off that. zondle uses transactional replication from a SQL Server backend

database which passes the data out to subscribers with a latency of between 3 to 5 seconds, ensuring the data is always live and available. Linux load balancing ensures consistent 100% uptime, so zondle can pull servers in and out of action as and when needed for maintenance purposes and keep the platform live.

Bill Strain, Chief Technology Officer for iomart, said: "To succeed in the educational games market you have to have constant uptime and the robust VMware platform we have built gives zondle users continual access wherever they may be. Data is fed back instantly and securely to the teachers and the students so they can consolidate the students' learning by analysing the results of the games they play."

There is a lot of file i/o. Files are being added all the time so virtual file paths enable those files to be accessed instantly from both the publisher and subscriber servers. And because the results are also fed back continually to the teachers and their students the data is continually being backed up to the cloud.

#### LAST WEBSITE STANDING

Doug Lapsley, Chief Technology Officer for zondle, who originally developed the platform in his caravan up in the Highlands of Scotland, says, "The aim of zondle is to be useful to teachers, who work in critical environments but often with difficult IT infrastructure. We have to do everything to ensure that zondle is always available, to make sure that we are the last website standing."

The team at zondle is currently developing a whole new range of mobile apps for educational publishers and exam boards. Earlier this year zondle was successfully showcased at BETT, the world's leading educational technology show, by UKTI, the government organisation that helps UK business succeed in the international market.

There is no doubt that the combination of gaming and education is a very attractive one for the cloud. zondle now has users all around the world, and its ability to serve such a huge and diverse market is driven by having a reliable and highly available cloud platform which can be accessed round the clock.

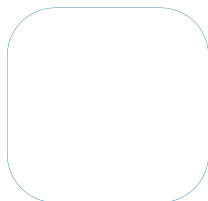
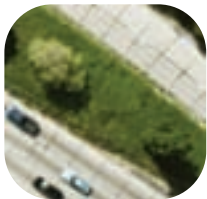
Bill Gates said back in 2012: "Imagine if kids poured their time and passion into a video game that taught them math concepts while they barely noticed, because it was so enjoyable." zondle is one of the companies proving the reality of what he was hoping for. Indeed much of its growth has come from teachers recommending it to colleagues after their own students have enjoyed and benefitted from using it.

Digital games are among of the most successful consumer technology products and the way they are being used to help educate young people has opened a whole new area of innovation and creativity in the software development and SaaS market. With two and a half billion children under the age of 18 around the world it is clear that the market for online educational games still has a long way to go.

More info: [www.iomart.com](http://www.iomart.com)

# Cloud at the crossroads

No one group has all the expertise needed to create a perfect cloud environment - it needs expertise in application behaviour, data centre design, network and machine virtualisation, wide area networking and so much more. Getting this all working together calls for collaboration, and the CloudEthernet Forum can help to do it, says CEF President, James Walker



Sometimes society needs to pause, waiting for one single word or symbol that encapsulates its fundamental need, before moving on. Like a seed crystal dropped into a super-saturated solution, the word "cloud" has become the rallying cry for a range of "as a service" business models now spreading like wildfire. And yet the basic idea - that it makes economic sense to invest heavily

in central resources and save money on cheaper access to those resources - has been around since the days of the mainframe computer.

The personal computer almost destroyed that model, as people discovered that they really liked holding their own resources, but it re-emerged with client-server and the savings made possible by allowing a "thinner client".

While the rise of the web revived the idea of centralisation, with a truly thin client accessing services from the Internet, early moves in this direction gathered little momentum. This was partly because Internet access in the 1990s was still too slow, but also because people still cherished the autonomy of having all their assets in their own PC.

## PHONE AHEAD

What really shifted this caution was the arrival of the smartphone: a new type of thin client appeared that seemed to hold the whole world in its Internet grasp. People did not have to shift perspective and embrace the SaaS model, they just found they were already using it, and the word of this new aeon was "cloud". The result has been a surge in cloud uptake that took even its strongest advocates by surprise.

The signs are everywhere, as massive new datacentres are springing up in the coldest places: Dell'Oro Group predicts that within five years more than 75% of Ethernet ports will be sold into data centres, with similar predictions



for compute and storage gear from Gartner and Forrester.

So the total worldwide market for cloud infrastructure and services is expected to grow to \$206B in 2016, and the cloud will be the hub for most business investments well into the next decade.

### YOU CAN'T PLEASE ALL THE PEOPLE...

The early adopters are those who accept this total virtualisation process and are quite happy to shift it to other platforms. But, as we move towards a mass cloud market, the industry is beginning to reach people still wedded to the merits of autonomy. These include a sense of independence with more palpable SLAs, of security (or at least more manageable risk), control over data integrity in the face of increasing legislation and so on.

This means that the industry will soon be facing a much steeper sales incline - and this is just when it can least afford to slip. If the cloud fails now, it could send the whole market tumbling back down the slope.

The bad news is that the cracks in the cloud structure have already started to show. The good news is that this has been recognised in time. The industry has launched the CloudEthernet Forum and is already rallying to tackle fundamental issues and ensure a reliable, scalable and secure cloud for the coming generation.

### CHALLENGES IN CONTEXT

A more detailed analysis of the challenges and suggested steps to their resolution is available in the CEF white paper 'The Benefits and Challenges Ahead for Cloud Operators'. There are, however, two main factors that need first to be understood to provide context for the technical challenges.

The first is scale. It is understood that the market is rapidly expanding, even more rapidly than expected - but this is a familiar challenge in the IT world with lots of new users coming



on line. What is different is the explosion in virtual machines that is unbounded by the physical limitations usually imposed by the requirement to install hardware.

In a virtualised environment every VM is equivalent to a new location added to the network and, even in a low-density data centre, we could be speaking of many tens of thousands of such "locations". Already we hear of new giant data centres hosting over a million VMs: string a few of these together and we will very soon be addressing tens of millions of new network locations.

### TIME TO SWITCH?

Ethernet has, quite rightly so far, proved itself as the optimal technology for these data centres, but it is worth remembering that it is based on a concept designed in the 1970s to string a few computers in the Palo Alto research centre together so they could share a printer. It has developed over 3 decades by adding switches to extend the service from tens to many thousands of locations.

This is a natural evolution in response to growing demand. But the coming VM explosion is way beyond natural, and today's switch designs simply don't have the memory to hold tables for tens of millions of locations. And a move to create new generation "super-switches" would go against the basic economics that makes Ethernet so suitable.

Doesn't SDN point the way to a solution - keeping the switches simple and centralising this massive routing burden onto the network controller? It's an attractive idea and may well be a part of the solution, but it is not really what SDN is fundamentally about. The real attraction of SDN is to use central control as a basis to deliver smart new functionality and flexibility to the overall network by virtualising it and creating a more nimble communications infrastructure.

Forcing an additional massive "heavy lifting" administrative burden onto the controller in this way shifts the emphasis from software-defined towards software-relieved - reducing what could have been a breakthrough into a sticking plaster solution. NFV (Network Functions Virtualisation), similarly, may have a role to play, but its immediate effect would be to increase the number of functions running on VMs.

If we are to find new ways to streamline the process, reducing the grunt work rather than moving it all to the control layer, then it will need a fundamental rethink: it will need a cloudEthernet.

### BIG ISSUE NUMBER 2

The second big issue centres on collaboration: the problems are different when you begin linking remote data centres. Yes, it also increases scale, but the real challenge is

*"The CEF is gathering expertise in application behaviour, data centre design, security, network and machine virtualisation, wide area networking and so much more. Those who join are collaborating to build a firm foundation for tomorrow's cloud - a cloudEthernet meeting the needs of scalability, determinism, availability at the speed of VMs being made and torn down. Those who stand aside may find themselves delivering services on a creaking platform, pointing the finger of blame at everyone but themselves."*

bringing together mature disciplines with already established boundaries: the people who build data centres and design applications are not WAN experts, just as telcos have much to learn about the needs of applications and data centre architecture.

An enterprise cloud solution typically brings together at least four major players in addition to Network Equipment Manufacturers: data centre experts, WAN service providers, cloud service providers, usually some exchange provider like Equinix, Telx or CoreSite who may be hosting ten thousand logically discrete tenants in a single data centre.

These are big worlds needing to find common ground or a connecting bridge. If that does not happen, then any failure in cloud delivery will widen the rift as each discipline starts blaming the others for any system failure.

### AVOIDING FRAGMENTATION

Collaboration is the key. Before the cloud's Ethernet foundations starts to show cracks we need the whole industry to work together to reinforce those foundations. There are already giant players in this game: in 2012 AWS, Google and Microsoft accounted for 40% of all the Ethernet ports shipped worldwide.

While that gives some idea of their massive investment, the total being less than 50% also tells us that not one of these giants is yet big

enough to dominate the scene and dictate its own cloud connectivity 'standards' for global usage. So, standards need to be created before the market fragments.

Take a familiar example: the outstanding success of Carrier Ethernet happened because vendors collaborated to create and certify global standards in the name of MEF - rather than battling each other to see whose technology could take the lead. The users could buy certified services and equipment without having to waste time choosing technologies, the service providers and vendors made faster sales, and world business gained by the acceleration of high performance, lower cost WAN services brought about by Carrier Ethernet.

A similar level of collaboration by cloud stakeholders is needed now. The CEF is gathering expertise in application behaviour, data centre design, security, network and machine virtualisation, wide area networking and so much more.

Those who join are collaborating to build a firm foundation for tomorrow's cloud - a CloudEthernet meeting the needs of scalability, determinism, availability at the speed of VMs being made and torn down. Those who stand aside may find themselves delivering services on a creaking platform, pointing the finger of blame at everyone but themselves.

**More info:** [www.cloudethernet.org](http://www.cloudethernet.org)



# Not all data centers are created equal

**THAT'S WHY SANDISK OFFERS A CHOICE OF SAS AND SATA SSDS DESIGNED FOR SPECIFIC APPLICATION WORKLOADS**

A single SSD can replace several traditional HDDs—empowering IT to create a more reliable and flexible infrastructure while reducing capital expenditures, conserving space and slashing energy consumption. The Optimus MAX 6Gb/s SAS SSD is the first SSD of its kind to deliver SAS performance at the cost of SATA for enterprise, cloud and virtualized data center mixed-use application workloads. This 4TB2 SSD enables organization to transition to a leaner infrastructure model reducing total cost of ownership (TCO). The Optimus MAX SSD utilizes the latest 19nm eMLC NAND flash technology combined with the innovative Guardian Technology™ Platform to deliver high performance, superior reliability and enhanced endurance for maximum application scalability.

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

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

# Legal challenge

Legal IT specialists Accesspoint have worked closely with Databarracks to deliver CJSM (Criminal Justice Secure eMail) connectivity in the cloud to east London solicitors Edwards Duthie



Edwards Duthie is one of the largest solicitors firms in the east London/West Essex region, employing 170 fee earners and support staff over seven sites across the country. The company's client base is drawn from across the country and they operate very much on a national basis.

The size and resources of the business have enabled them to build and develop the right supporting infrastructure to handle large volumes of work to quality standards. In so doing the management remain loyal to the principles of client care and service which have enabled them to retain and build upon their business.

With what they describe as 'a unique mix of corporate, trade union, private client and

publicly funded work', Edwards Duthie's specialist lawyers are able to assist clients whatever the legal problem they may face. The firm is an avid consumer of IT with a strong history of using technology to enable its employees to work more productively and efficiently.

Before establishing specialist legal IT provider Accesspoint, Richard Roebuck acted as Edwards Duthie's Head of IT. Today, as Managing director of Accesspoint, Richard continues to equip the firm with a strong internal IT function.

Through this relationship, Accesspoint has enabled Edwards Duthie to become early adopters of cloud technologies in order to deliver more cost effective services their fee earners and support staff

require to work and collaborate.

Reconciling this cloud adoption roadmap with specific legal regulatory obligations, such as the requirements for access to the CJSM service, has been both a technical and operational challenge.

## HARD CASE

The Criminal Justice Secure eMail (CJSM) service is a centralised platform enabling criminal courts and barristers to communicate securely with one another. The system keeps emails containing sensitive information secure, up to and including the 'restricted' classification, (as defined by the Cabinet Office) by transmitting them through dedicated servers only accessible by criminal justice practitioners.

Gaining access to the system can be achieved either through CJSM's webmail functionality, or through a CJSM SMTP dedicated Exchange mail server.

"Though it's possible to connect in to the CJSM through their web portal, the restrictions around mailbox sizes and the lack of full integration with Edwards Duthie's existing environment meant it was unsuitable for the needs of our case workers, or the firm's overall technology strategy. I wanted to centralise all our IT in a unified cloud platform, and that meant architecting a dedicated secure email environment, approved by the CJSM accreditation team," says Richard Roebuck, Managing director at Accesspoint.

*"The government red tape associated with becoming CJSM compliant would have been insurmountable without our partnership with Databarracks. They were instrumental in helping us architect the right kind of dedicated environment for the 20 CJSM accounts we needed. They also provided invaluable advice around attaining compliance."*

### FAIR EXCHANGE

Connectivity to the CJSM service via an SMTP connection dictates that organisations must use a dedicated mail server with a secure digital certificate to encrypt incoming and outgoing mail.

However, Edwards Duthie was in the midst of an ongoing programme to outsource as much IT as possible. Retaining tight controls over a dedicated Exchange server without actually buying one would depend on finding a specific kind of partner, and given that criminal cases account for approximately 25% of Edward Duthie's workload, it was an important decision to get right.

"Although email was one of the first functions we wanted to move in our journey towards cloud adoption, we also needed to ensure full control over our Exchange environment to ensure CJSM compliance. There aren't many providers able to offer the right blend of security, compliance and performance through a hosted service. Plus, the level of physical and digital security offered by Databarracks' data centres went a long way to appeasing the auditors," says Ken Winberg, practice director at Edwards Duthie.

Databarracks provides secure, Infrastructure-as-a-Service, Backup-as-a-Service and Disaster Recovery-as-a-Service from UK-based, ex-military data centres. Databarracks is certified by the Cloud Industry Forum, ISO 27001 certified

for Information Security and has been selected as a provider to the G-Cloud framework.

Crucially, Databarracks has an absolute commitment to client security, as they say themselves: "We know that relying on a third party to deliver your business critical systems is fundamentally an act of trust. From the ex-military bunker we use to host systems down to our tireless support team, we've built our whole business around an appreciation of the gravity of that choice. We started 10 years ago with backup, when cloud computing was a still just an idea. We knew then that hosted IT services would change the face of business computing, so long as they were reliable - so long as they did what they said they would."

Databarracks also acted in a consultative capacity for Edwards Duthie. Roebuck commented: "The government red tape associated with becoming CJSM compliant would have been insurmountable without our partnership with Databarracks. They were instrumental in helping us architect the right kind of dedicated environment for the 20 CJSM accounts we needed. They also provided invaluable advice around attaining compliance."

### JUSTICE FOR ALL

Besides ensuring the security of their criminal case workers' correspondence, Edwards Duthie's connection to the CJSM service represents a significant first step in

the firm's journey towards a cloud-centric infrastructure.

Though the firm opted for more expensive SMTP connectivity, Accesspoint has been able to keep costs down by selecting Databarracks to host their dedicated exchange within a wider multi-tenant environment approved for CJSM. By keeping CJSM clients together in a container, Edwards Duthie benefit from the security of a traditional dedicated server and the economies of scale of a multi-tenant environment.

The biggest advantage to CJSM SMTP access is the seamless experience it presents to users. Not only do fee earners receive CJSM secure emails directly to their main inbox, they can also send mail via the secure server by simply adding 'cjsm.net' as a suffix to their standard email address.

"It fully integrates with our practice management system, meaning that with a click of a button we can populate electronic case files with pertinent email correspondence. This has cut our admin costs significantly," says Winberg.

The firm has also seen significant cost reductions in its postage costs, as Winberg concluded: "Before using CJSM the firm's postage costs could easily reach £40k a year. After migrating our email to a CJSM enabled environment, we've been able to cut that by at least 75 per cent."

**More info:** [www.databarracks.com](http://www.databarracks.com)



# Licensed to shill?

Unscrupulous software vendors could be taking advantage of their customers, suggests Martin Prendergast, CEO and Co-founder of Concorde Solutions

There's a firm belief in the industry that cloud computing has revolutionised business IT infrastructure in recent years. Cloud computing and hosted software are now mainstream services and many businesses, from SMBs to enterprises, are benefitting from cost effectiveness and increased flexibility and availability. Of course with this comes the inevitable 'but', and in this case it is the increasingly important issue of software licensing.

Although it is ripe with benefits, cloud computing is unfortunately causing an issue for some companies when it comes to having visibility of their software licensing estates; an issue in particular for larger global enterprises that deploy a high number of software licenses. This, combined with the increased complexity of portable devices within the workplace, is making them prime targets for vendors, who often take advantage of their lack of transparency by charging additional fees for non-compliance that they find in audits. This is fast-becoming a revenue-generating tool.

Automatic software updates and security patches are also threats that have crept up on businesses since the advent of cloud software, and are just some of the reasons why businesses are finding it increasingly difficult to control their IT software estates.

One of the most recent incidences is Oracle's In-Memory patch default enablement issue - where the new feature was enabled by default, leading to the risk of companies being charged over the odds for a service they hadn't actively sought out.

Cases like this are illustrations of the aggressive way vendors are taking advantage of the naivety of companies still adjusting to new technologies and delivery models. Most of the major vendors now have stringently managed auditing teams, revenue targets from non-compliant customers. An audit typically occurs every three years, with approximately 94 per cent of vendors having audit clauses in software contracts with their end users, but vendors are increasingly targeting those who have been fined before - easy to do, as there is no standard notice period required. If you're found to be under-licensed, it can lead to some pretty hefty costs, including being charged for years of back support.

## LIMITING EXPOSURE TO RISK

While getting to grips with cloud, companies would benefit from limiting the risk to their business by taking some very simple steps. First and foremost, they must understand the exact size and make up of their software estates to have ready if ever challenged by a vendor. Making sure that you have visibility of the mobile devices

being used within the business and what is being used on them - beyond email - is another critical consideration as it can often be a weak spot and a huge compliance risk.

Making use of a license management and business intelligence software platform can help end users gain the clarity needed to help understand the opportunities they have access to as well as risks they're up against. Instead of being fined for non-compliance, your business could be paying for additional licenses that aren't even being used and not have the faintest idea. Some enterprises have paid millions in excess simply because they haven't taken a moment to have a look at this.

Occasionally, vendors try to help their customers to avoid issues of non-compliance. Microsoft recently replaced its three-year-old software licensing pricing structure with Service and Cloud Enrolment (SCE), a new licensing vehicle that enables customers to standardise on Microsoft Server and Cloud technologies, making it easier for organisations to adapt as they grow. Unfortunately, not all vendors have their customers' best interests at heart, so it definitely pays to get to grips with your estate and weed out any software estate potholes before your vendor does - and exploits the information for its own benefit.  
**More info:** [www.concordesoftware.com](http://www.concordesoftware.com)



# Dramatic license

Unscrupulous software vendors could be taking advantage of their customers, suggests Martin Prendergast, CEO and Co-founder of Concorde Solutions

There's a firm belief in the industry that cloud computing has revolutionised business IT infrastructure in recent years. Cloud computing and hosted software are now mainstream services and many businesses, from SMBs to enterprises, are benefitting from cost effectiveness and increased flexibility and availability. Of course with this comes the inevitable 'but', and in this case it is the increasingly important issue of software licensing.

Although it is ripe with benefits, cloud computing is unfortunately causing an issue for some companies when it comes to having visibility of their software licensing estates; an issue in particular for larger global enterprises that deploy a high number of software licenses. This, combined with the increased complexity of portable devices within the workplace, is making them prime targets for vendors, who often take advantage of their lack of transparency by charging additional fees for non-compliance that they find in audits. This is fast-becoming a revenue-generating tool.

Automatic software updates and security patches are also threats that have crept up on businesses since the advent of cloud software, and are just some of the reasons why businesses are finding it increasingly difficult to control their IT software estates.

One of the most recent incidences is Oracle's In-Memory patch default enablement issue - where the new feature was enabled by default, leading to the risk of companies being charged over the odds for a service they hadn't actively sought out.

Cases like this are illustrations of the aggressive way vendors are taking advantage of the naivety of companies still adjusting to new technologies and delivery models. Most of the major vendors now have stringently managed auditing teams, revenue targets from non-compliant customers. An audit typically occurs every three years, with approximately 94 per cent of vendors having audit clauses in software contracts with their end users, but vendors are increasingly targeting those who have been fined before - easy to do, as there is no standard notice period required. If you're found to be under-licensed, it can lead to some pretty hefty costs, including being charged for years of back support.

## LIMITING EXPOSURE TO RISK

While getting to grips with cloud, companies would benefit from limiting the risk to their business by taking some very simple steps. First and foremost, they must understand the exact size and make up of their software estates to have ready if ever challenged by a vendor. Making sure that you have visibility of the mobile devices

being used within the business and what is being used on them - beyond email - is another critical consideration as it can often be a weak spot and a huge compliance risk.

Making use of a license management and business intelligence software platform can help end users gain the clarity needed to help understand the opportunities they have access to as well as risks they're up against. Instead of being fined for non-compliance, your business could be paying for additional licenses that aren't even being used and not have the faintest idea. Some enterprises have paid millions in excess simply because they haven't taken a moment to have a look at this.

Occasionally, vendors try to help their customers to avoid issues of non-compliance. Microsoft recently replaced its three-year-old software licensing pricing structure with Service and Cloud Enrolment (SCE), a new licensing vehicle that enables customers to standardise on Microsoft Server and Cloud technologies, making it easier for organisations to adapt as they grow. Unfortunately, not all vendors have their customers' best interests at heart, so it definitely pays to get to grips with your estate and weed out any software estate potholes before your vendor does - and exploits the information for its own benefit.

More info: [www.concordesoftware.com](http://www.concordesoftware.com)



**Storage is changing...** the good news is your expectations can too.

At Q Associates we live and breathe information technology and we're passionate about the difference it can make to an organisation when you get it right.

The relentless growth of data has meant that we all have to be smarter about the way that we work. Buying a bigger box, simply doesn't cut it. The world has moved on.

That's where we're different. We aim to collaborate with our clients, combine our skills and knowledge and provide versatile solutions designed for today's changing market.

If you share our view that harnessing your data could have a profoundly positive affect on your organisation, then we'd love to work with you...



**Q ASSOCIATES**

Your IT. Our Business.

For Award Winning storage advice, contact [storage@gassociates.co.uk](mailto:storage@gassociates.co.uk)

# Stop acting on impulse

To meet business goals for agility, innovation, and growth, says Lynda Stadtmueller, Vice President, Cloud Services, Stratecast | Frost & Sullivan, enterprises must look for cloud providers that offer a range of services that meet today's needs and can grow with the business



From the earliest days of the cloud, businesses have been lured by the lack of commitment. No term contracts, no volume commitments. Easy in and out. Use as much as you want, whenever you want, at a moment's notice. Pay only for what you use. Like a sixties commune, the cloud is painted as a celebration of freedom. The result is that too many businesses are making impulsive cloud decisions. Rather than committing to a provider, a service, a deployment model, or even a cloud strategy, the majority of cloud users are simply dabbling.

But is that any way to make a critical IT decision? Of course not. Tempting as it may be to sample your way through the cloud, IT leaders know that their businesses-and their jobs-depend on thoughtful planning. Once the decision has been made to pursue cloud solutions, the company needs to research the options in the marketplace.

## CLOUD SERVICE PROVIDER: ONE OR MANY?

The biggest myth in technology is the existence of 'the cloud'. In truth, there are many clouds, comprising different deployment models (public, private, and increasingly,

hybrid) and different "layers" of the cloud stack (Infrastructure as a Service, Platform as a Service, Software as a Service). And for most businesses, the "right" cloud strategy will include all of the above.

The challenge for IT leaders is to select the providers and services that offer the greatest degree of flexibility, without creating administrative burden associated with managing multiple vendors. Clouds that utilise open standards may offer the ability to seamlessly perform critical 'inter-cloud' functions, such as bursting or backup and recovery, and enable developers to extend the functionality of your cloud services. Whether you decide to go with a single provider or several vendors that support interoperability, the key to a successful cloud implementation is to find a provider whose cloud portfolio is as flexible and varied as the workloads it may handle-today and into the future.

Because cloud is still evolving as a business model, it can be difficult to research vendors. Many providers use the same term to define very different services ("hybrid cloud" is one example), making it difficult to compare offers. In addition, the flood of new entrants into the market means that many providers have little to no experience in hosting or application delivery, thus raising concerns not only about today's service performance but also the ability to evolve their services to meet future needs.

The following list will help enterprises evaluate their options in two critical areas: the cloud service portfolio and the service provider itself.

## EVALUATING THE PROVIDER'S CLOUD SERVICE PORTFOLIO AGAINST YOUR NEEDS

Very few businesses will choose to migrate their entire data centre into a hosted cloud environment. Instead, businesses of all sizes expect to use the cloud to augment their existing infrastructure and operations. As such, you need to consider which workloads are appropriate for which environment. For example, the low-cost, seamless scalability of the public cloud may be ideal for low-impact workloads. You may choose to keep sensitive data in your on-premises data centre, or house it in a hosted private cloud (in which servers and network are not shared among tenants). During the evaluation phase of the cloud project, enterprises can determine the best environment for each workload; that is, the cloud environment that provides the right degree of performance, security, and resilience at the right price.

The challenge for the enterprise is to identify a provider with a portfolio that supports the full range of environments. More importantly, the portfolio should extend beyond today's vision and offer a foundation for your future cloud strategy. Specifically, look for the following characteristics:

**Interoperability** - This is a charged word, so it's important to understand exactly how your provider defines it. To maximise the value of their cloud services, enterprises should select a provider that enables workloads to span multiple environments, in a hybrid cloud configuration. A 'hybrid cloud' offers maximum

*"The biggest myth in technology is the existence of 'the cloud'. In truth, there are many clouds, comprising different deployment models (public, private, and increasingly, hybrid) and different "layers" of the cloud stack (Infrastructure as a Service, Platform as a Service, Software as a Service). And for most businesses, the "right" cloud strategy will include all of the above."*

flexibility for managing workloads efficiently. For example: enterprises should be able to place an application in a public cloud environment, but the associated database in a secure, on-premises cloud. Similarly, a workload in a private cloud environment may be configured to burst into an on-demand public cloud during unexpected traffic peaks. For greatest interoperability value, look for a provider that offers an open standards-based common infrastructure platform for public and private hosted clouds, as well as your on-premises private cloud.

**Flexibility** - Just as different workloads are suitable for different environments, they also require different configuration and delivery parameters. As such, the cloud provider should offer a menu or range of options related to performance, security, and resiliency, enabling the enterprise to select-and-pay-for just the settings it requires for each workload.

**Service Level Agreements** - Be sure to read the fine print, and ask questions about the provider's service level agreements (SLAs). Reports of cloud outages often include statements from outraged clients who were shocked-shocked-to learn that a prolonged outage was actually permissible under the terms of the provider's 'annual average' availability metric. If a half-day outage will be detrimental to your business, then discuss this potential outcome with your provider upfront. Remember, it's not about getting the "best" SLAs; it's about getting the terms that are most meaningful to you and your business.

**Security** - When an enterprise enters the cloud,

it is entrusting its information assets to a third-party provider. To earn that trust, the provider must take great steps to protect those assets. Look for a provider that makes security a priority. Choose an expert that thinks beyond the physical security of the facility or even firewalls. Ensure the provider builds its cloud architecture for optimal protection, including measures to isolate enterprise workloads on physical servers, protections against Internet-borne attacks, and clear administrative access controls.

### EVALUATING THE CLOUD SERVICE PROVIDER

The cloud demands high levels of trust between the enterprise and the provider. The ability to earn the trust of customers is what differentiates providers, and what keeps even the simplest of cloud infrastructure services from becoming a commodity. In evaluating cloud service providers, look for the following:

**Cohesive, forward-looking cloud strategy** - Is the provider's cloud a hastily-launched effort to latch onto current momentum, or a carefully built foundation for future services? Cloud is a nascent technology and business model, one that is still evolving. Providers that are committed to the transformational potential of the cloud will be able to articulate a clear vision of the future, and will invest development resources to ensure they are leading - not following - the trends.

**Experience** - While the cloud is relatively new, the problems it solves are old. Look for a cloud provider with a track record in managing enterprise data centres, providing secure

hosting, and delivering mission-critical applications. This will ensure that your cloud provider understands that your in-house data centre is a key component to your cloud strategy.

**Access to technical expertise** - Thanks to automation tools and self-service Web portals, the cloud is largely a do-it-yourself effort - and many providers save costs by limiting their customer service support. But enterprises rely on such support, especially since they do not have the time and expert staff to optimise their use of the new cloud technology. In fact, 78% of businesses surveyed by Frost & Sullivan said they plan to turn to an outside expert for assistance in designing and implementing their cloud strategy. Be sure your provider offers the levels of customer service you are accustomed to, with access to expert technicians (either on-staff or through a certified partner network). For additional levels of support, find a provider that offers a range of managed and professional services to help you develop a cloud strategy, migrate to the cloud, and maintain optimal cloud performance.

For many enterprises, the cloud is no longer a quick, tactical fix, but an opportunity to transform IT. As they think beyond a handful of isolated workloads, their criteria in selecting a cloud provider become more stringent. To meet business goals for agility, innovation, and growth, enterprises must look for cloud providers that offer a range of services that meet today's needs and can grow with the business.

**More info:** [ww2.frost.com](http://ww2.frost.com)

# The IP Crowd

October sees the return to London of IP EXPO, Europe's leading cloud and IT infrastructure event. Cloud Hosting magazine takes a look at the likely highlights

Designed for professionals across the whole spectrum of IT roles, IP EXPO Europe is the definitive event to view brand new technologies, and through exclusive keynote presentations, gain fresh insights from the leading thinkers in IT. With cloud, mobility, security, analytics, infrastructure and data centre technologies all under one roof, IP EXPO Europe covers everything needed to run IT for a successful enterprise.



Located at ExCel London, for 2014, IP EXPO Europe will this year feature two brand new co-located events, Cyber Security EXPO and Data Centre EXPO, designed to address the new developments and trends in these critical areas. With over 300 exhibitors from the likes of Microsoft, VMware, IBM and Schneider Electric, the show will feature demonstrations and presentations which cover every facet of IT infrastructure, including the cloud, data centres and the latest solutions to combat cyber-crime. IP EXPO Europe is this year's must visit event for all IT specialists.

## SPEAKERS' CORNER

The opening keynote speech will be delivered by Sir Tim Berners-Lee, inventor of the World Wide Web, who TIME magazine included in its "Top 100 Most Important People of the 20th Century". In his first address to the core IT community of IP EXPO Europe, Sir Tim will outline his 2050 vision for the web and how businesses will use it for competitive advantage.

Above all, he'll look at how businesses - and the people who lead them - will shape the next phase of the web's remarkable development. His speech will mark the 25th anniversary of the first draft of a proposal for what would become the World Wide Web. To mark this milestone, he will share his vision for successful business on the Web - from predicted challenges and the technology businesses will use to overcome them, through to the



key innovations that will help drive future success, improve customer experience and create new markets.

Sir Tim comments; "I am greatly looking forward to addressing key decision makers in European business at IP EXPO Europe. The issues that will shape the future of the web - from privacy and data regulation, to sustainability and responsibility - don't just touch our businesses, they touch our lives, and it's thrilling that we are all at the very epicentre."

Sir Tim will speak on Wednesday 8th October 2014 from 10am ExCel, London, and his opening keynote will be followed by an impressive programme from leading technology influencers including Cloudera's Doug Cutting, creator of Hadoop, and Mark Russinovich, Technical Fellow at Microsoft.

### WHY ATTEND?

Taking a day out of the office isn't easy but with so much on offer at IP EXPO Europe, you can add value to your organisation in many ways:

- Free education - 300+ Seminars
- Networking - 15,000+ of your industry peers
- View exclusive product launches - 300+ Exhibitors
- Discover the details you need to know on the hot topics such as Big Data, Cyber Security, Cloud, SDN and more
- Find previously undiscovered companies and solutions
- Gain insight from industry specific leaders
- Understand how to avoid the pitfalls of introducing new technology
- Learn from business leaders who have implemented new technologies/strategies
- Be educated on the current position of the industry
- Ensure your organisation is implementing best practice
- Gain clarity on specifying project

requirements

- Find products and services best suited to your needs with the specialists to help you

### FREE CONSULTANCY

This year, IP EXPO Europe will be offering all registered visitors free, personalised consultancy, tailored to the unique requirements of their business and IT Environment. With a huge range of exhibitors, specialists, consultants and technologies on offer at the event, the organisers want to ensure that visitors get the most from their day.

The consultants are highly qualified and specifically chosen from across the industry with deployment experiences from Commercial, Public Sector and SMB as the organisers explain: "The knowledge of our consultants will allow them to advise on technologies that will meet delegates' needs and provide valued insight to their projects."

### BIG DATA EVOLUTION SUMMIT

In association with Cloudera, IP EXPO Europe also brings you The Big Data Evolution Summit. This dedicated area at the event, will consist of 2 focused Theatres and an interactive, bustling partner zone, that provides individuals with the opportunity to engage with the experts and see solutions in action.

### SDN CONFERENCE

Software Defined Networking has emerged from the data centre as a mainstream networking approach that will

transform enterprise networking and telecommunications. Join the Open Networking Foundation (ONF) as they lead a workshop style SDN Conference. The conference will offer a range of education sessions that address the SDN value proposition for data centres, enterprise and the cloud, based on pragmatic and real-world use cases.

This free to attend conference will take place in a dedicated SDN Theatre at IP EXPO Europe on Wednesday 8th of October 2014. Between sessions and throughout the day you will be able to engage with like-minded professionals and speak directly with leading exhibitors in this emerging new market.

### WHAT A TRANSFORMATION

The Digital Transformation Summit is a one day executive programme taking place from 9.00am-4.00pm on Thursday 9th October at IP EXPO Europe. The Summit will bring together a group of exclusive Industry Leaders focused on creating the next age of IT.

The current phase of Digital transformation affects both individual businesses and whole segments of society, such as government, mass communications, art, and medicine. Delegates will be able to hear directly from the likes of:

- Robert Teagle, EMEA IT Director, Starbucks Coffee EMEA BV
- Tim Hynes, Head of IT - EMEA, Microsoft

More info: [www.ipexpo.co.uk](http://www.ipexpo.co.uk)

### IP EXPO

Register now for the show at [www.ipexpo.co.uk](http://www.ipexpo.co.uk), and keep up with the latest news and developments by following @IPEXPO in Twitter and the tag #IPEXPOEurope.

**IP EXPO Europe**  
**8 - 9 October 2014**  
**ExCel London**

# Keeping the customer satisfied

Eagle Eye, a UK leader in digital consumer engagement, is using the Rackspace DevOps Automation service to manage a cloud-based infrastructure which supports its product network for offers, vouchers and reward transactions

With offices in Guildford and Manchester, Eagle Eye is the UK market leader in digital coupons and vouchers, working with over 100 brands and all leading POS systems providers. Clients include Aurora Fashion, Greggs, JD Fashion, Ladbrokes, Marks & Spencer, Mitchells & Butlers, Orange, Pizza Express, Tesco and Thomas Pink.

Founded in 2003, Eagle Eye processes more than two million transactions per month for over 80 customers. Eagle Eye's AIR platform allows retailers to seamlessly integrate coupons into loyalty programmes and deliver vouchers and rewards directly to customers' devices, all while building up valuable profile information which helps retailers more effectively target shoppers with personalised offers.

By working with Rackspace DevOps experts, the company can automate the process of deploying and scaling hybrid cloud infrastructures for its AIR platform applications, while also rolling out additional insight and monitoring tools.

Steve Rothwell, founder and director, Eagle Eye said: "With the help of the DevOps specialists at Rackspace, we can react to the market like never before. We now have the flexibility to scale up and down and get products to potential and existing customers faster. We let Rackspace focus on our infrastructure and the tools we need to run more efficiently and our team can focus on writing code for our products. It's the perfect fit."



Rackspace originally worked with Eagle Eye in 2008 delivering a managed cloud solution that had infrastructure expertise available 24/7, which kept payroll costs down by reducing the need to hire. Now, with Rackspace DevOps Automation Service, Eagle Eye's own internal DevOps team can collaborate with Rackspace specialists to discuss real time application insight and performance metrics. This allows Eagle Eye to make decisions about application architecture and help ensure the infrastructure automation is optimal in respect to market conditions.

DevOps Automation is part of a Managed Operations service level, which means Rackspace also provides the ongoing management of the automation by managing updates, security patches and the latest versions of environment stacks.

Chris Jackson, Practice Area CTO (DevOps) at Rackspace said: "Rackspace has been working with Eagle Eye for several years, and this is just the next step in our work together. DevOps has become a formally-recognised technology discipline for IT professionals and is therefore an increasingly sought after skill

set for businesses, and Eagle Eye's investment in both internal and external specialists highlight this. Our DevOps specialists don't only work closely with both Eagle Eye, but also the lead engineer at Rackspace to ensure their service is enhanced while running on a strong infrastructure foundation."

Eagle Eye sees DevOps as a critical aid to growth rather than a secondary investment. A recent Vanson & Bourne study into the awareness and prevalence of DevOps projects in UK businesses showed:

- 37 per cent of organisations had a DevOps strategy - either running a live project or using accepted DevOps processes
- 16 per cent did not know if they have a DevOps strategy in place.

DevOps integrates the combined roles of both developers and operations teams in order to improve collaboration and productivity by automating infrastructure, workflows and continuously measuring application performance. Rackspace's highly-trained DevOps specialists help pull all this together and enable businesses to achieve competitive advantage by increasing velocity, reducing time-to-market and giving real time performance monitoring and insight. As a part of the offering, Rackspace takes responsibility for writing and maintaining the automation that enables customers to build fully configured application servers.

**More info:** [www.rackspace.co.uk](http://www.rackspace.co.uk)



# OceanStor Storage Solutions

Industry leading  
specifications.  
Incredible quality  
and great value.

Huawei.  
The intelligent  
choice.



Entry-level enterprise bundles from **£2,699**



Flexible  
and Scalable



Outstanding Efficiency  
and Economy



High Reliability  
and Availability



Eco-friendly

For more information on Huawei's range of storage solutions contact Zycko today:

**zycko**<sup>®</sup>

International distributor  
of innovative IT solutions

T : +44 (0)1285 868 500 E: [sales\\_uk@zycko.com](mailto:sales_uk@zycko.com)  
W: [www.zycko.com/huawei](http://www.zycko.com/huawei)

# Top billing

Cloud billing can make the difference between success and failure for a subscription based business, explains Louis Hall, CEO, Cerillion Technologies

Consumer and corporate markets are in the midst of a revolution as businesses transition from selling products to providing services. This subscription revolution is sweeping through all industries across the world. From the smallest corner shop to the largest conglomerate, everyone is vying for recurring business in a bid to gain more predictable revenue streams and create a more valuable supplier-customer relationship.

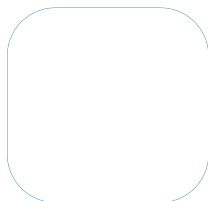
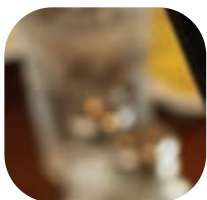
Rather than selling products individually, a

subscription provides periodic (e.g. monthly, yearly or seasonal) use or access to a product or service. The subscription-based model benefits suppliers by providing an opportunity to interact repeatedly with customers; get feedback from them and use the intelligence gained to cross-sell and up-sell new services. In short, the business model is changing from a product-based sale to a relationship-based service engagement.

Small businesses are often particularly attracted to the subscription-based model. The efficiencies and cost savings it brings and the opportunity it provides to build lucrative, long-term relationships based on regular close engagement with customers are often too good to ignore. Unfortunately though, making a success of subscriptions is not always straightforward for SMEs.

Most start out with simple business ideas which can be easily replicated. If a copycat competitor comes on the scene, undercuts them on price and develops goods or services at a cheaper location, it becomes much harder to differentiate. So how can small businesses stand out from the crowd and ensure they make a success out of subscriptions? Here, we provide some top tips to help them do just that.

- **Focus on Monetising Your Service Offerings** - If you want to gain real competitive advantage, you have to find a means of rapidly bringing new services to market and monetising them. So you need to focus your whole approach on this goal, and that means providing your customers with more service options and ensuring you bring more flexibility





*"A business model based on subscriptions and usage needs flexible pricing options - but traditional on-premise billing systems are typically too expensive or not agile enough to handle this requirement. Cloud billing can be key here, significantly reducing the time taken and cost of setting up new services and enabling businesses to rapidly turn creative ideas into monetised offerings."* - Louis Hall, CEO, Cerillion Technologies

around how you price and package services and up-sell and cross-sell new offerings. That's fine as far as it goes but you also need to do all this without increasing your overheads. Cloud billing can provide the answer here.

- **Offer the Right Payment Choices.** From the start, you should be thinking about what payment options to give your customers. You must decide whether you want to enable people to pay by credit card, direct debit, or other methods such as PayPal or bank transfer, for example. And you need to put in place the infrastructure to enable this. The kinds of solutions you implement will obviously depend on your business model and types of customers. However, the top priority should always be to make the process as straightforward to use as possible.

- **Ensure You Package Your Solutions Properly.** Businesses are typically always looking to negotiate a better price for the products and services they are buying. Therefore, they often look for the solution they are being provided with to be differentiated in some way. So again, knowing your customer well and having a flexible way of packaging and pricing your products and services is important to be able to address their needs - whether they are a business or a consumer.

- **Focus Your Business Model on Recurring Revenue.** By going down the subscription

path, you are making it easier for customers to buy again from you, and crucially less likely that they will buy from someone else. By having a subscription and a regular contact point, customers that require additional products and services can just add those to their account. In monetisation terms, creating a stronger relationship with customers through subscriptions makes it easier to win repeat business and up-sell more.

- **Make Sure You Put Flexible Billing in Place.** A business model based on subscriptions and usage needs flexible pricing options - but traditional on-premise billing systems are typically too expensive or not agile enough to handle this requirement. Cloud billing can be key here, significantly reducing the time taken and cost of setting up new services and enabling businesses to rapidly turn creative ideas into monetised offerings.

Today's subscription-based economy requires the flexibility to mix and match subscription and usage-based pricing models plus the ability to tailor offerings to the full range of B2B and B2C segments. There is huge potential on offer here for any small business that gets its business model and markets spot on, and can therefore deliver a subscription-based offer that allows it to really stand out from the competition.

More info: [www.cerillion.com](http://www.cerillion.com)



# Show me the money

Jamie Longmuir of SafeNet describes how different approaches to software monetization can drive incremental revenue for ISVs via the Cloud

The cloud is changing the way independent software vendors (ISVs) are monetizing their offerings. An increasing amount of workload is now moving from on-premise to cloud. This transition is driven by two factors: what customers and/or competition are dictating, and the need for ISVs to expand their reach to new segments. As a result, more and more ISVs are considering adding a cloud-based element to their offering.

However, for software vendors, success in the cloud is reliant on a lot more than just building a useful service in the cloud; it also depends on the organisation's ability to effectively monetize that solution. Only those ISVs that employ a strong software monetization strategy, consisting of software packaging, control, tracking and management techniques, will reap the real revenue benefits of the cloud.

## NAVIGATING THE CLOUD

With IDC's prediction that cloud software will grow to US\$76.1 billion by 2017, it's no surprise that ISVs are moving software and application development and delivery into the cloud. You only have to run a quick Google search and you'll find pages of results linking to articles explaining why every software vendor needs to become a software-as-a-service (SaaS) provider, or run the risk of going out of business in a couple of years.

Historically, software was delivered on-

premise (usually on a server or desktop with no virtualisation) and the most common licensing methodology was to secure the application with a hardware key or dongle. Then the next evolution was a software-based license key, where software companies would deploy a license server in the client landscape to secure its software.

Now many software companies use a hybrid approach to deliver software - running a SaaS service and delivering the same application on-premise, such as Microsoft Office 365. Next-generation licensing solutions need to be able to handle these multiple delivery methods as well as multiple license models, with one back-end and one enforcement technology.

## CUSTOMERS' CHANGING NEEDS

We're seeing a fundamental shift in how applications are delivered and maintained. Licensed on-premise solutions are being complemented by SaaS applications. As a result, in addition to their on-premise offering, ISVs are now faced with the challenge of adapting offerings to run in the cloud and in a virtual environment, including not only resources and technology, but licensing models that appropriately monetize SaaS applications.

Many ISVs are struggling to figure out how they can manage and license both on-premise and cloud-centric packages. Typically they have made long term investments in applications that are deployed on-premise

and therefore were not originally developed to be offered as a service. Furthermore, many ISVs are realising that they are losing business, not because of the quality of their product, but because they aren't selling their product the way customers want to buy it.

Today, end-users/enterprise IT departments want the flexibility of consuming software on any device, regardless of whether it is a desktop, or increasingly, a mobile device. In addition, just as they utilise elastic cloud services from providers like Amazon Web Services, they want to be able to consume software on a pay-as-you go or pay-as-you-grow model. In other words, they want the convenience they are accustomed to in other aspects of their lives.

With a lot of options to choose from, customers can easily pick another product if the software publisher doesn't suit their needs. So it has become strategically and operationally important for software vendors to provide their software in the many ways that customers prefer to purchase - subscription, freemium, use-based, feature-based, or any combination of these and more.

## INTELLIGENCE IN THE CLOUD

In order to constantly adapt to the changing needs of customers, ISVs need to ensure they are utilising software usage tracking and analytics to enable them to develop and price software in line with customers' needs. The cloud can provide ISVs with real-time access

*"Looking forward, we can expect the next generation of business pricing models to be hybrid, consisting of a combination of subscription and pay-as-you-go models. This in turn will give rise to 'à la carte' pricing scenarios where companies will have the ability to charge for additional features or more bandwidth. This is going to drive a new monetization channel which is the incremental revenue stream."*

to information and data and, given the right tools, can enable them to update user preferences immediately.

Crucially, real-time access in the cloud means software providers can measure customer usage for business intelligence. ISVs need to know how their software is being consumed, right down to what buttons are being pushed and how often. This can help drive investment decisions and prioritise where engineering and development resources should be targeted based on real life usage of their products. It can also help ISVs to provide flexible and sophisticated pricing models based on a customer's usage level rather than user based licensing.

Being able to understand customer usage and adapt the service to meet their needs in real-time is invaluable and enables software providers to put customer experience at the heart of development and delivery. For example, by correlating application usage with the price a customer is paying, software vendors can quickly derive insights with an up-sell opportunity (high consumption, low price) or a churn risk (high price point, low software utilisation). This not only reduces customer churn, it expands the software providers' outreach to markets that were previously untapped and provides access to new and fruitful revenue streams.

## DRIVING REVENUE

With the benefits of the cloud clear, ISVs should be asking themselves: 'what is the best

way to leverage the cloud to drive revenue?'

This might be a complete migration to the cloud or just a move for part of the business. There's no 'one size fits all' and software providers don't have to migrate everything to the cloud to gain a business advantage - what they need is a cloud connected software monetization solution that leverages what the cloud has to offer.

With cloud licensing, ISVs can provide their customers with subscription or usage based billing models, gain insight into how customers are using their software and offer their users a flexible model to access their software anytime and anywhere - whether their software is delivered in the cloud, on-premise or in a hybrid deployment.

The ability to generate new business models and incremental revenue mechanisms is probably the most important benefit of adopting a next-generation software monetization technology and process.

## NEXT GEN SOFTWARE MONETIZATION

Ten years ago software companies charged their customers once upfront and then added a maintenance contract which was roughly 15-20 per cent of the upfront license fee. Now with the arrival of the subscription economy, recurring revenue models are gaining traction and becoming more popular. These models include both time-based subscriptions, such as monthly and annual billing, as well as consumption-based or pay-per-use pricing models that are based on factors such as the

number of users, data consumed or bandwidth used.

Looking forward, we can expect the next generation of business pricing models to be hybrid, consisting of a combination of subscription and pay-as-you-go models. This in turn will give rise to 'à la carte' pricing scenarios where companies will have the ability to charge for additional features or more bandwidth. This is going to drive a new monetization channel which is the incremental revenue stream.

The true power of packaging can be leveraged here to build once and deliver many. Feature-based packaging concepts can be taken to the next level where publishers can turn on features in real-time through in-application promotions and purchases. This enables a capture of consumer surplus through a low-friction, incremental revenue generation model - a trend which is common across gaming vendors and is seeing wider adoption in the software/online services space.

From an execution perspective, the right licensing solution should have the ability to manage, modify and update entitlements in real time or near real time. It should have the ability to generate and track true application usage, to analyse consumption patterns and enable new consumption based pricing models. Only then can ISVs realise the full value of the incremental revenue stream.

**More info:** [www.safenet-inc.com](http://www.safenet-inc.com)

# Plotting a safe journey

Andrew Carr, CEO of Bull Information Systems, offers a selection of Top Tips for 'getting there with Hybrid Cloud Storage'



Organisations today increasingly understand the benefits of moving to the cloud. Yet, many still hesitate to take their first steps on the road to full cloud-based implementations due to the perceived risks involved. Here are my top tips for migrating to the cloud and tapping into its many benefits while still effectively managing risk.

## 1. Ensure You Get the Right Advice

Whatever cloud solution you opt for, make sure you invest in an approach that delivers a combination of consultancy and high-quality technology. Getting the underlying infrastructure and SLA management security in place are crucial of course, but you will also need to tap into informed advice on making a step-by-step journey to the cloud.

For many businesses, choosing hybrid cloud storage solutions will be a good option. You will have the chance to establish a fully supported, sustainable and secure platform that allows you to migrate at your own pace.

## 2. Reduce Risk by Running Trials

Implementing a hybrid cloud storage solution allows you to test your ability to adapt your IT infrastructure to a cloud-based model before

committing to a full migration. This approach enables you to retain some elements of the solution in the cloud, thereby keeping a level of control in your own data centre while simultaneously cutting risk.

## 3. Don't Fret about Security

Even with the hybrid model, security can be an issue, although it is primarily one of perception. You may be worried that if your data is being hosted in the cloud by a solutions provider or on another organisation's site and there is a disagreement over the service or a contractual dispute, you will struggle to retrieve it. But you need to appreciate that providers can be flexible and understand that while asset management is key, it should not prevent you from accessing the cloud and tapping into the benefits that a cloud-based approach can bring.

## 4. Get Peace of Mind from Ensuring Business Continuity

Have the confidence to make the most out of your hybrid cloud implementation. The ability to keep some IT resources local should help you meet security restrictions and compliance requirements and achieve reassurance as a result. At the same time

you can realise the benefits of using the hybrid model to secure your storage and create a more robust business continuity capability paid on a 'per use' basis.

## 5. Make the Most of Flexible Financing

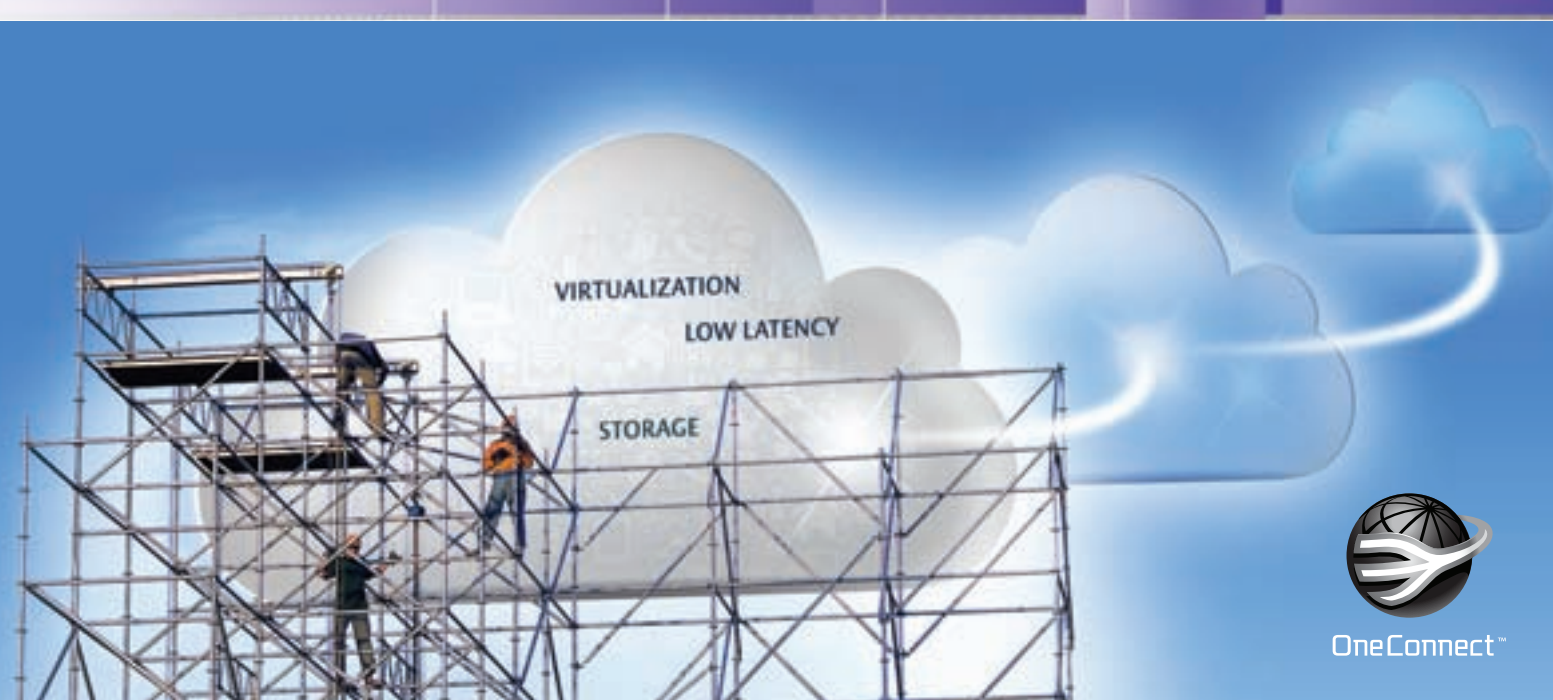
Moving to a hybrid managed storage model allows you to realise the benefits of a hybrid 'per use' pricing structure. The way it works is that the provider first identifies the base limits in terms of your current storage requirements. As that requirement then increases or decreases, the hybrid per use model allows you to scale up and down in the cloud and only pay for what you use. You therefore get much more flexibility in terms of cost but also the ability to quickly adjust capacity to meet unpredictable demand.

## 6. Take Things a Step Further

Once you've taken your first steps to the cloud and you've learnt to trust the hybrid approach, it is relatively easy to go all the way by moving your remaining storage out of the data centre and into the cloud. This step-by-step approach has many benefits. You can test your culture, service management and the way you operate internally.

Today at Bull, we are seeing the hybrid cloud storage approach become increasingly popular as issues around cloud security dissipate. Organisations looking to migrate to cloud computing are putting storage and back-up into the cloud first. This is happening across multiple markets and with all sizes of enterprise. Today, it is increasingly clear that the future of business is in the cloud and, if businesses follow the advice outlined above, hybrid managed storage offers the perfect route to get there.

**More info:** [www.bull.co.uk](http://www.bull.co.uk)



OneConnect™

## 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



[www.emulex.com/oce14000-10gbe](http://www.emulex.com/oce14000-10gbe)



[www.emulex.com/oce14000-40gbe](http://www.emulex.com/oce14000-40gbe)

[www.emulex.com](http://www.emulex.com)

# Smart investment

Private equity firm SOF Investments has improved business productivity by migrating to the cloud after moving away from its parent company's premises

**S**OF Investments is a private equity fund manager, located at Hanover Street in London. They have recently completed a transition to the cloud with the help of TechQuarters, providers of cloud migration and IT support services. SOF Investments Limited provides asset advice and management to its parent company's special opportunities fund.

## GOING IT ALONE

SOF Investments were due to move away from their parent company's offices, and were looking to source an IT solution which was suitable for their business. The management had heard a lot about the cloud and its benefits, so got in touch with TechQuarters, because of their status as the 2013 Microsoft Cloud Partner of the Year.

Ian Gascoigne, partner at SOF Investments explains, "As we began to look at moving office, we soon realised that by moving away from our parent company, we would be without their IT system and support, and we would have to do something new."

This prompted a number of questions including, what to do with the present data, where to house it, and what systems would be required for maximum efficiency at the new office?

The challenge for TechQuarters was to migrate SOF Investments' entire system to the cloud, in order to make them ready for the move to their new premises. Gascoigne continues: "Our priority was to find a partner to help us migrate to the cloud, but who

understood our business needs and could minimise any downtime as a result of the move."

There were a number of day-to-day problems being faced by SOF Investments, especially with regards to version control, and limited access. Their legacy system meant collaboration on documents was difficult, and they had no control over the infrastructure because it was a shared system.

## THE CLOUD SOLUTION

TechQuarters spent some time discussing options with SOF Investments and agreed to do the following:

- Move their email from an on-premise system to Office 365 and collaboration data to SharePoint
- Setup a Domain Controller to manage the new network in Azure, whilst providing a data repository for legacy data
- Install a new switch and firewall at the new offices
- Rollout new desktops, laptops, devices and printers
- Finally, move the SOF Investments team to their new offices and provide support to the new network.

TechQuarters began by auditing the present data and systems that SOF were using on their legacy network. TechQuarters Chris Dunning explains: "It became apparent that most of the day-to-day data could be moved to SharePoint Online, part of Office 365, so they could collaborate on documents with version control." SOF's email was migrated from an on-premise email system to



*"In looking for a new network solution, it was critical we found a solution which could offer the data security, business continuity and disaster recovery which are essential to a regulated financial services business, while maintaining flexibility and cost efficiency. A cloud based solution offered the opportunity to achieve enterprise level storage and flexible working functionality without the requirement for significant capital expenditure on servers."*

Exchange online, giving each employee a 50GB mailbox, increasing email capacity and accessibility.

TechQuarters then migrated the 10 SOF Investments employees to Office 365 before they moved offices. The next step was to implement a Windows Azure Domain Controller server that would give SOF the networking control, legacy data storage and flexible access from any location. Once the migration was complete and SOF Investments were up and running on the cloud solution in their old offices, they were ready to make the seamless move to their new premises.

## TWO WEEKS LATER

One of the most significant benefits to SOF Investments was the hassle free nature of the move. The whole migration took just two weeks, and TechQuarters made sure SOF had migrated to the new system before moving day. This meant that no business productivity was lost, and any issues could be dealt with by TechQuarters in very little time.

"We were delighted with the move as we kept the business up and running, with minimal impact on the day to day activity. I have been delighted with the results and the new solution has really helped us to move forward." Ian Gascoigne, Partner, SOF Investments.

The solution benefited SOF in the following key areas:

- **Increased business productivity:** The cloud

based nature of the solution has meant that SOF employees can work from anywhere. Therefore, whenever staff are out of the office for the day, they can always continue to get their work done on time.

- **Reduced management time:** Prior to the migration, essential tasks like adding a new user took time and planning, but with the Microsoft cloud solution, this can be done with just a click of a button. This has meant SOF staff can focus on doing business, not contacting IT.
- **Complete control over infrastructure:** Before TechQuarters came in, SOF Investments infrastructure was managed by their parent company, leaving them with little control. The new infrastructure has restored control back to SOF, meaning they can tailor the system to their own needs.
- **Ongoing fast response support:** With efficient IT systems so important to keeping SOF's business running, TechQuarters have provided a fast response support service. As the system can be managed remotely, a lot of maintenance can be done almost instantly. Since the system has been running, TechQuarters have fixed 66% of issues within 8 hours, and the rest within 24 hours.

TechQuarters CEO, Chris Dunning

commented: "We strived to ensure SOF Investments would have the best tools available to ensure maximum productivity within their business, and we have been delighted with the results. All of the work was completed in just two weeks."

The solution has also provided SOF Investments with dramatic cost savings. Not only has their electricity bill dropped, because they are no longer powering an on-premise database, but they have also saved a significant amount by migrating to the cloud. The high costs of installing on-premise hardware and software means SOF have saved almost £7,000 in IT costs by choosing to migrate to the cloud with Office 365.

"In looking for a new network solution, it was critical we found a solution which could offer the data security, business continuity and disaster recovery which are essential to a regulated financial services business, while maintaining flexibility and cost efficiency," concluded Ian Gascoigne. "A cloud based solution offered the opportunity to achieve enterprise level storage and flexible working functionality without the requirement for significant capital expenditure on servers. TechQuarters seamlessly helped us plan the move and migrate to the Microsoft cloud. Their consultant was efficient, helpful and delivered exactly what they said they would do, without any hassle."

More info: [www.techquarters.com](http://www.techquarters.com)



# V for Victory?

David Barker of colo and cloud provider, 4D-DC.COM, looks at Virtual Data Centres and the pros and cons of virtual hosting compared with physical data centre management

**T**raditionally, systems and data have been hosted on hardware in an office, server room or rack in a data centre. With the 'cloud revolution' people have become more aware of the benefits of Cloud hosting and there has been an explosion in the adoption of virtualisation within infrastructure. Many colocation providers are now offering virtual data centre solutions as an alternative to traditional colocation, enabling companies to rid themselves of capacity management - and capital expenditure.

Companies have been considering their options in terms of their infrastructure. Often aging hardware requires companies to look at the possibility of virtualisation. But is moving to the Cloud or virtualising your infrastructure the right way to go with your business?

Cloud has obvious financial benefits for a business: a virtual set-up means you no longer have to purchase, maintain or replace expensive hardware. Within a traditional Cloud you can use as much or as little resource as you need, on a utility model (like gas or electricity).

In addition, the flexible and scalable nature of Cloud means that capacity management is a thing of the past for IT managers. In a physical environment, capacity management in terms of server spec and quantity (including space required for hardware) has to be forecast for the life span of the hardware.

## REMOTE CONTROL

Virtual environments are easily replicated across geographically diverse locations, something that would be costly and inefficient to manage in a physical data centre. Data replication in a virtual environment is quick and efficient so that in the event of a disaster your replicated data should always be up-to-date and ready to auto failover.

However, Cloud also has its drawbacks. Concerns over data location and security - for example the level of encryption of the data and the connection - are top priorities in the minds of data controllers within larger organisations. When you host virtually with a large, low priced provider in the public Cloud, it can be difficult to achieve total visibility of your data's location.

Both data centre and Cloud environments vary hugely in terms of specification. In a physical set-up, you can ensure that your firewalls and links to your equipment are secure and protected against attack, but in a virtual environment you depend more heavily on the 'security ethics' of your provider. Some providers overlook firewall set-up and maintenance as well as access security which can leave your data and business systems open to attack. It is important to check what your provider offers in terms of security and make sure you have the details in writing along with any security accreditations they may have.

Access to any environment, physical or

virtual, cannot be guaranteed 100%, but in the instance of a physical set-up, you can be sure that redundant power and connectivity will maximise your chances of uptime. In the Cloud you're more heavily dependent on your provider to invest in these features. Virtual environments can suffer from downtime making access to your data and business systems impossible. It is important to check that your provider's environment is set up in a highly available configuration with diverse network routes and a good track record of uptime.

Moving forward, it is likely that many businesses will move as least partially to a virtual environment. Cloud presents lots of advantages, especially to start-ups and SMEs with smaller budgets. As time moves on, the Cloud and virtualisation industry will address wider concerns over data security and businesses will become more confident in Cloud adoption; reducing running costs, adding resilience to environments and enabling scalability of their resources to the pace of their business needs.

But until more Cloud providers can offer effective Cloud management, we will generally see more hybrid Cloud solutions coming to market which enable live, sensitive data to be stored in your co-located servers while applications and websites are hosted on a virtual data centre platform, scaling to suit business needs.

**More info:** [www.4D-DC.com](http://www.4D-DC.com)

# Setting the stage for cloud services

International events company Richmond has 'right-sized' its business cloud services and gained additional flexibility

Richmond Events has called on Claranet to provide its whole IT infrastructure to allow it to scale in real time according to the needs of the business. In doing so, they have been able to maintain a competitive edge in a crowded market.

Richmond Events' business model has always relied on advanced database marketing. The company has offices in London, New York and Basel as well as a sizable remote network of employees in several countries. It depends heavily on the intellectual property contained within its global IT systems, which is key to staying ahead of fierce competition from rivals, explained Liam Quinn, IT Director at Richmond Events: "Our differentiation is our data and how we use it to meet our clients' needs. Customers can select from a rich set of supplier and conference information, which in turn produces new data that we can analyse and feedback in to the business. Delegates attending our events can create individual itineraries, which are unique to them. But sifting through this data and turning it to our advantage demanded time and technical resources, both of which were under strain."

Indeed the company found itself struggling to meet increasing client expectations when it was forced to streamline its operations during the economic downturn. In addition, the business found that its IT estate wasn't



flexible enough to cope with changing customer demand, meaning that it was redundant at quiet periods and under pressure when business picked up.

The company turned to Claranet to provide a solution that encompassed managed hosting, a private MPLS network and communication services - all provided in a fully managed service and support wrapper. In doing so, Richmond Events could drive down their overall IT spend and add new flexibility to their IT estate - without impacting operational capability. The role of the internal IT team also changed significantly, focusing less on managing infrastructure and more on guaranteeing a quality end user experience, thus maintaining the company's differentiation in the market they operate in.

"Managed services give us the ability to make the right decisions at the right time so we always get good value and have services that are fit for purpose," Quinn

continued. "We now have the flexibility to run our business how we want to, yet have the support we need."

Importantly Claranet established a service agreement that is scalable to changing needs. Having a fixed user base contract, with the ability to top up the service with extra users when needed, combines the economies of scale of a set fee with the flexibility of a pay-per-user model. Further, Richmond Events assessed its

cloud needs for service up-time and support to make sure that they did not procure services that were not needed.

"Many organisations moving to the cloud insist in the highest levels of up-time and service. While on the face of it this makes sense, the reality is that few organisations need a guaranteed 99.999 per cent service up-time and the cost to demand this does not always give an improved ROI. It is important to be clear about the business requirements for cloud, otherwise you risk paying for services that are superfluous." Quinn concluded "We had been searching for a panacea that would allow us to increase - or decrease - users as dictated by the needs of the business, and Claranet has helped us get there. Despite the fact we are now more virtualised than ever before, the performance of our servers is far superior and the costs are far lower with Claranet."

More info: [www.claranet.co.uk](http://www.claranet.co.uk)

# Safe and sound?

Liam Enticknap, Network Solutions Architect at PEER 1 Hosting offers advice on how to keep your cloud secure



A recent study by PEER 1 Hosting revealed that the promise of much greater flexibility has convinced 89% of IT professionals to at least dabble with cloud technology; however 92% are still being turned off cloud because of security fears.

You probably don't need me to tell you, but stolen data can result in fleeing customers, a damaged reputation and high recovery costs. In an ideal world, security and risk management teams would be able to sink as much cash as possible into their company's digital ecosystem to protect it. Most of them however, especially at the smaller end of the spectrum, struggle to find room in the budget for highly secure architecture.

The benefits offered by virtualisation and cloud computing are there for all to see, but many businesses still have concerns over the security of the data centres they are relying on. Many of the security problems associated with a cloud migration or virtualisation projects stem from the transition phase. With some assets sitting in legacy infrastructure and other resources in the cloud, temporary gaps in safety can emerge.

Businesses want to turn to cloud hosting solutions to alleviate the burden and costs of hardware management. Data protection is still a crucial factor to consider before outsourcing IT operations, but consider that the cloud may actually offer cyber-security benefits.

Looking at it one way, it simply shifts the focal point of IT security. In the cloud, location-based security as a concept falls apart. You can't pinpoint the exact location of your data, and this is a good thing. Someone else is responsible for your data - someone who likely has a larger budget and more staff dedicated to protecting your data from outside attacks.

Needless to say, this shouldn't remove all control from the business, and it demands that cloud buyers perform due diligence in selecting a vendor. Concerns over data ownership and control at the application level can be addressed by clearly defining who is responsible for maintenance of software in the cloud environment. If the host offers some of its own software, companies should ensure they will maintain ownership over the data that flows through those applications.

Cloud security usually revolves around the SLA and ensuring that the provider follows best practices. However, the problem with assuming there are best practices is that every business has unique IT and operating environments. This means that even if focus is placed on a specific category such as application security, businesses might actually be in need of a different solution to properly protect their data.

## CUSTOM SOLUTIONS TO CUSTOM THREATS

The move away from the one-size-fits all approach to IT security has led to a growing need to customise intrusion detection

systems to unique IT environments. Fine-tuning traffic thresholds, for example, can lower the risk of false alarms while increasing the likelihood that a real attack can be prevented.

Most data centres have smart monitoring features such as Relentless Intrusion Detection, which quickly alerts if humans, network worms or bots are attacking the system. Managed hosting services may support their solutions with firewall configuration and added protection against threats such as DDoS attacks. The high level of automation in the tools used to detect cyber-attacks in the cloud is a desirable feature, as internal IT departments don't need to be constantly watching the company's network.

The physical security of a data centre also plays a crucial role in ensuring data is kept safe. In a well-protected data centre access is limited and closely monitored, with security guards present round-the-clock. More advanced data centres will use fingerprint, voice or DNA authentication through biometric access control systems, as well as interior and exterior CCTV.

Trusted hosting providers offering recognisable network security features backed up by the promise of physical data centre protection can make cloud and virtualisation a safe and affordable alternative to your dependable but cumbersome and expensive local setup.

**More info:** [www.peer1hosting.co.uk](http://www.peer1hosting.co.uk)

# 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>



# 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.



[www.vectorworks.net/service-select/cloud-services](http://www.vectorworks.net/service-select/cloud-services)

Distributed by



3ddesign@unlimited.com  
[www.bimvectorworks.com](http://www.bimvectorworks.com)  
020 8358 6668

Associations we work with include the following:

