

# networking

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## Strategic partnership

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# Ofcom announces 4G spectrum winners – now planning for 5G

by Rahiel Nasir

After more than 50 rounds of bidding, on 20 February Ofcom announced that EE, Hutchison 3G UK, Niche Spectrum Ventures (a subsidiary of BT Group), Telefónica UK (which owns O2), and Vodafone had all won 4G mobile spectrum.

Ofcom says the winning bidders can deploy services to consumers, businesses, or both, and that almost the entire population will be able to receive 4G mobile services by the end of 2017 at the latest.

A total of 250MHz of spectrum was auctioned in two separate bands – 800MHz and 2.6GHz. This is equivalent to two-thirds of the radio frequencies currently used by wireless devices. The lower-frequency 800MHz band is part of the 'digital dividend' freed up when analogue terrestrial TV was switched-off,

and is ideal for widespread mobile coverage. The higher-frequency 2.6GHz band can be used to deliver the capacity needed for faster speeds. Ofcom believes the availability of the two will allow 4G networks to achieve widespread coverage as well as offering capacity to cope with significant demand in urban centres.

Ed Richards, Ofcom chief executive, said: "4G coverage will extend far beyond that of existing 3G services, covering 98 per cent of the UK population indoors – and even more when outdoors – which is good news for parts of the country currently underserved by mobile broadband."

Ofcom has attached a coverage obligation to one of the 800MHz lots of spectrum, won by Telefónica UK. It will be required to provide a mobile broadband service for

WINNING BIDDER	SPECTRUM WON	BASE PRICE
EE (Everything Everywhere)	2 x 5MHz of 800MHz & 2 x 35MHz of 2.6GHz	£588,876,000
Hutchison 3G UK	2 x 5MHz of 800MHz	£225,000,000
Niche Spectrum Ventures	2 x 15MHz of 2.6GHz & 1 x 20MHz of 2.6GHz (unpaired)	£186,476,000
Telefónica UK	2 x 10MHz of 800MHz	£550,000,000
Vodafone	2 x 10MHz of 800MHz, 2 x 20MHz of 2.6GHz & 1 x 25MHz of 2.6GHz (unpaired)	£790,761,000
<b>TOTAL</b>		<b>£2,341,113,000</b>

*The winners of 4G spectrum auction plus the frequencies awarded and the base prices paid.*

indoor reception to at least 98 per cent of the population (expected to cover at least 99 per cent when outdoors), and at least 95 per cent of the population in each of the UK nations by the end of 2017 at the latest.

There is a final stage in the auction process to determine where in the 800MHz and 2.6GHz bands each winning bidder's new spectrum will be located. Bidding in this 'assignment stage' is due to take place shortly. Following this, and once bidders have paid their full licence fees, operators will be able to start rolling out their networks, with consumer services expected in spring or early summer 2013.

MLL Telecom was one of the companies whose bid was unsuccessful. In a statement, its CEO Gary Marven said that as a UK

focused telecoms operator and existing spectrum owner, his firm was disappointed. "Looking forward, we see the allocation of the spectrum through the auction opening the door to increased levels of connectivity and mobility in the UK. MLL Telecom will continue to support our mobile customers, build networks in remote areas and help the public sector with their networks."

By 2030, Ofcom says that demand for mobile data could be 80 times higher than today. To help meet this demand and avert a possible 'capacity crunch', it is planning now to support the release of further spectrum for future '5G' mobile services. The plans aim to draw on the 700MHz frequency band, which is currently used for digital terrestrial television. ■

## CIOs concerned over shortage of suitably qualified IT staff

A shortage of suitably qualified staff is a major concern for the IT industry, according to a new survey carried out by BCS, The Chartered Institute for IT. It asked CIOs what their priorities were for this year, and found that business transformation and organisational change, plus operational efficiencies top the list.

But 61 per cent of respondents say they do not have enough resources to achieve all that their CEOs have asked them and their teams to do. Of these, 74 per cent say they need additional suitably qualified staff in order to complete the tasks set, while almost half (47 per cent) highlight the need for enhanced IT skills among

existing staff in order to achieve the priorities. Martyn Lambert, CEO of BCS Learning and Development, says: "Our survey highlights the importance of continuing professional development. CIOs are being tasked with high-level responsibilities that can shape a whole organisation, so it is vital that their teams are equipped with the right tools to achieve their goals and compete on a global scale."

The BCS conducted its survey online during November 2012 with 235 responses from the BCS ELITE group and corporate clients, non-members of the BCS, and the La Fosse Associates LinkedIn group. ■

*Hiring is up – Network Knowledge, p15*



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# BAE Systems and Vodafone form unique partnership

BAE Systems and the Vodafone Group have formed a five-year strategic partnership to provide businesses with a range of advanced communications security products and services, initially focused on smartphones and tablets.

The partnership is part of BAE's commitment to grow its cyber and security arm, BAE Systems Detica, in areas such as the communications technology market. Vodafone aims to benefit by being able to provide its global enterprise customers with the most advanced and robust security products and services available.

The two companies' first commercial offering will be a new cloud-based mobile security solution, *Vodafone Mobile Threat Manager*. This will be launched in the coming months and will initially be

available to the mobile operator's largest 1,500 global enterprise customers. Vodafone says *Threat Manager* works across all networks, scanning traffic to and from corporate mobile devices without impacting on their performances.

Ian King, CEO of BAE Systems, says: "This partnership is unique, not only in bringing together a defence and security player with a major communications provider, but also in its ability to help global enterprises realise their ambitions around leveraging the future of communications technologies in a secure manner. These technologies are subject to the vulnerabilities of cyber space and we can provide the mobile marketplace with protection against today's threats and the advanced threats of the future."



Vodafone will also become BAE Systems preferred supplier of mobile communications.

The partnership also provides a framework for both companies to explore a broader range of joint security products for other business areas including interconnected devices using M2M (machine-to-machine) technology.

Additionally, BAE Systems will select Vodafone as its preferred global supplier of mobile communications in all markets except the US. Once appointed, the mobile firm will provide services to BAE's 35,000 UK employees from July. ■

## DANTE pushing towards world's first 100G transatlantic network

DANTE and the America Connects to Europe project (ACE) will work together to progress the implementation of the first ever 100Gbps transatlantic links for the research and education (R&E) community.

DANTE is a non-profit organisation which coordinates large-scale projects co-funded by the EC. It represents GÉANT, the high-speed European communication network dedicated to the R&E sector. While 100Gbps speeds are

presently being rolled out across the GÉANT network, DANTE believes that data flows may suffer in the near future once they reach the Atlantic.

Between them, GÉANT and ACE – which is managed by Indiana University – already offer more than 80Gbps of transatlantic connectivity. However, DANTE says this is comprised of multiple 10G links and will lead to bottlenecks in the future for 100G users.

It has therefore launched a prior information notice (PIN) calling for support to eventually replace these links with multiple 100G links, ensuring that partners in large research projects continue to benefit from the best available connectivity.

"We are determined to extend capacity across the Atlantic to stay ahead of the 'data deluge' generated by research and avoid bottlenecks in the future," says Cathrin Stöver, DANTE's chief interna-

tional relations and communications officer. "It is imperative research and education networks work together to push the envelope of networking technology and deliver economies of scale."

Stöver adds that the ideal outcome of the PIN is to run exploratory trials as part of a larger collaborative effort with other R&E networks on either side of the Atlantic. This may lead to production offerings following full procurement later in 2013. ■

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## File transfers not so drawn out

Brown Bag Films, the Dublin-based animation studio behind popular children's TV shows such as *The Octonauts*, has solved its worldwide file transfer issues thanks to Aspera's *Sync* software.

To successfully manage its growing list of projects, and to handle the data demands of 3D and HD productions, Brown Bag needed a real-time, round-the-clock collaboration solution to enable quick and easy file-sharing with its partner studios in Mumbai, Singapore and Indonesia.

FTP was unable to meet its stringent needs – even with a dedicated team to manage content movement across sites, the studio experienced partial transfers and corrupted files, while the latency between the sites caused transfers to almost grind to a halt.

Using *Sync*, Brown Bag can now move and replicate file sets between sites in the background, while a web-based production tracking system keeps track of all replicated files and versions. Users at the partner studios simply access files via storage mounted to their desktops. When they place the finished files back onto the mounted drive, *Sync* transfers all new or modified files at high speed back to Ireland.

Aspera claims *Sync* offers a scalable and multidirectional file-synchronisation and replication solution for moving big data over large distances up to 100-times faster speeds than traditional technologies.

Brown Bag is also using the vendor's *Connect* server which allows files to be downloaded from the central server using an 'install-on-demand' browser plug-in. ■



Brown Bag Films relies on transferring huge data files to its worldwide partner studios to create popular animated children's TV shows such as *The Octonauts*.



## Data centres could be crippled by “unseen” business risks

A peer group of senior data centre (DC) professionals has highlighted taxation and local data legislation as two “unseen risks” that threaten DC operators and their customers. They warn that these are often not considered until after a centre has been built in a “sub-optimal” country with “very serious” adverse implications.

At a recent seminar hosted by research analyst DCD Intelligence, Ernst and Young warned that failure to consider the location of a DC from a tax perspective can lead both owner and users to facing tax bills that are 20 to 40 per cent higher than expected.

“Governments are fearful that they’re losing tax revenues as business and e-commerce is processed and transacted in data centres which might be on the other side of the world from the customer and the supplier,” said Joe Bollard, partner, international tax services, Ernst and Young. “As a result, they are scrambling to grab their share of tax on these billions of pounds of online business operations.”

A second major risk was identified by Ruth Boardman, partner for international privacy and data protection with Bird and Bird. She explained that data privacy legislation differs significantly from country to country and even between states within countries. This can often lead to the laws of the business’ home country and the



**DCD Intelligence MD Nicola Hayes says that data centres are no longer just big “lumps of technology”.**

DC country being “mutually exclusive.”

“If a company fails to do due diligence on data privacy legislation in the countries in which it is considering building its new data centre(s), it may find (as some companies already have) that it is illegal to transfer personal data to that data centre or indeed back from the data centre to the head office – because that foreign government does not permit it,” said Boardman.

DCD Intelligence MD Nicola Hayes added that DCs are no longer just big “lumps of technology” – they are a key enabler of every business. “Historically, data centres have been built by technologists to minimise the risk of technical failure. But now that the data centre is such an integral part of most businesses, it transpires that there are massive potential risks at the commercial and legislative levels that are being largely ignored – with potentially business-crippling consequences.” ■

## LogRhythm’s SIEM makes Essex fire service PSN compliant

Essex County Fire and Rescue

Service (ECFRS) has deployed LogRhythm’s integrated log management system to help it achieve the regulatory compliance needed to access the PSN. The platform also provides the organisation with increased situational awareness across its IT infrastructure, boosting its overall cyber security and operational efficiency.

With an area covering almost 400,000 hectares and with 50 fire stations across 14 local authority areas, Essex has one of the largest county fire services in the UK.

As such, it is necessary for ECFRS to safeguard sensitive data across its IT estate, especially as it continues to roll out new virtual desktop infrastructure with login credentials for each of its firefighters. Furthermore, the organisation is required to



follow regulations which states that all network traffic must be continuously monitored in order to access the PSN.

Prior to deploying LogRhythm’s *Security Information and Event Management (SIEM)* system (pictured), ECFRS used a log management solution that struggled to provide network visibility across its expanding IT infrastructure. LogRhythm says it would have required extensive configuration if it were to deliver the level of protective monitoring needed for PSN compliance.

ECFRS aims to use *SIEM* to ensure the operation of its new control room from which emergency calls will be managed. ■



## THE WORLD ACCORDING TO...

Peter Alfred-Adekeye, CEO, Multiven

### Don’t be another victim of the hardware junkie culture

IT departments are problem solvers, employed to ensure the enterprise network runs smoothly. But what happens after the diagnostic has produced seemingly unintelligible results that exceed the technical competence of the engineer and the old faithful reset hasn’t solved the problem?

The answer is so ingrained into our culture that we don’t often think to question it: this piece of equipment is broken; you must go and buy a new one.

This knee-jerk reaction has turned many network managers into what we call ‘hardware junkies’. They repeatedly replace inexplicably ‘broken’ equipment with new (and don’t forget expensive) hardware to fill the gap. Too often, network administrators rip out and replace without trying to get to the bottom of the problem and resolve the root cause which, in most cases, has nothing to do with the kit.

This is not due to laziness. For example, many parts of an enterprise network require a large amount of specialist knowledge to understand it, and yet more to successfully diagnose and fix it when it goes wrong. We have many such networks, with few engineers who are capable of understanding them completely.

Internet network equipment does not break easily. In fact, its average lifespan is 25 years. No more than one per cent of all network issues are therefore caused by faulty hardware,

with the remaining 99 per cent attributable to human errors, misconfigurations and, to a lesser extent, software bugs. Unless you set it on fire or throw it down the stairs, your router or switch should be fine. So why are we replacing so much working hardware?

It is not in the interest of equipment manufacturers such as Cisco, HP, Juniper Networks, etc, to readily provide best practices and correct this misconception since it will hurt their profits over the longer term. This conflict of interest combined with the expertise shortage has created the hardware junkie culture. Network administrators are playing a very expensive game of ‘whack-a-mole’ with networking equipment, replacing each part as it ‘fails’ only for the same issue to eventually recur since the hardware itself was not the cause of the problem.

We live in a world where thousands of enterprises throw away millions of pounds worth of functioning equipment each day because they lack the expertise to address the root causes of their network issues.

For hardware junkies, booking yourself into rehab means either employing expert network engineers (if maintaining networks is your core business) or employing the services of a maintenance provider with the competence to correctly address the underlying system and software problems.

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## IN BRIEF

## Daisy to manage 2e2's data centre business

Following last month's news that the 2e2 Group had gone into administration, Daisy Group will now manage 2e2's data centre business. It was appointed by Oakley Capital Private Equity which acquired the assets of 2e2's data centre business. Daisy will now work with the existing data centre employees to provide services from the facilities in Gateshead and Reading. The company adds that the combination of these centres will double the amount of power available to its customers, from two to four megawatts. ■

## Nowcomm to manage Coal Authority LAN

The Coal Authority has awarded a two-year network managed services contract to Nowcomm. The company, which specialises in network skills, support and unified communications, will manage the LAN across two sites at the Coal Authority's headquarters in Mansfield. It will work closely alongside the organisation's own ICT department providing network support and performance monitoring. Nowcomm will also proactively advise on future changes and upgrades. The Coal Authority was established under the Coal Industry Act 1994 and is sponsored by the Department of Energy and Climate Change. ■

## Aneurin Bevan Health Board virtualises

Aneurin Bevan Health Board has virtualised its desktops and applications. Intrinsic Technology implemented the platform based on Microsoft and Citrix technologies. It allows each user group to access the specific applications they need from both fixed and mobile devices, catering for roaming workers and staff housed on remote sites. Intrinsic says that the project will save the board money on its annual desktop support costs, as well as improving data security and paving the way for a BYOD scheme. ■

## DCA certification programme tests 'roadworthiness' of data centres

The Data Centre Alliance (DCA) has developed a new certification programme which it claims is the first to be based on customer business goals rather than on "pure, and often economically unrealistic, technical requirements".

DCA executive director Simon Campbell-Whyte says: "Until now, people buying data centre services had no surefire or simple way to judge the true quality and resilience of a data centre – unless they themselves were highly technical and could perform detailed and often expensive audits."

The alliance says that although design-based certifications already exist, many of these "bear very little relation" to the data



**DCA executive director Simon Campbell-Whyte says that the new programme offers a "surefire" way to judge the true quality of a data centre.**

centre after a few months or years of live operation. The DCA's new programme harmonises the many available guidelines and standards to create an independently auditable certification platform that any data centre in the world can be equally tested and certified against. The scheme aims to cover every aspect of the data centre including:

power resilience; connectivity and cabling resilience; environmental control resilience; operations and maintenance processes and professionalism; physical site access; and energy efficiency.

In order to keep their DCA certification status, data centres will have to undergo a re-audit every two years as well as an annual surveillance check. While the DCA will act as the certifying authority, it will not be undertaking the audits itself.

Instead, the alliance says a range of approved auditing companies will carry out the work. It adds that this will provide customer choice as well as reduce the cost of certification. ■

## Go Daddy goes faster thanks to A10's ADCs

Go Daddy will use A10 Networks' application delivery controllers (ADCs) for its rapidly growing web hosting business across Europe.

The company is said to be the world's largest domain name and also provides new SSL certificates. Its hosting business faces increasing computing demands as it acquires new business and looks to meet the needs of existing customers' evolving web needs.

A10's 64-bit AX Series ADCs will be used for a large-scale Cisco replacement. It's claimed the appliances are able to improve the consolidation ratio by 8x per high availability pair, while simultaneously delivering "resiliency, extremely fast failover and security protection".



**Go Daddy has deployed A10's AX Series ADCs at its Amsterdam data centre which serves more than 337,000 customers in the UK.**

Go Daddy has deployed the new ADCs in its core North American data centre as well as at international sites including its Amsterdam data centre which serves more than 337,000 customers in the UK. To manage its rapidly increasing customer

traffic and accompanying AX Series appliances, the company will also use the vendor's aGalaxy centralised management solution for streamlined operations.

A10 adds that its AX Series offers a Layer 4-7 feature set, and "flexible" virtualisation technologies such as aVCS, multi-tenancy and more for public, private and hybrid cloud environments.

"Small business customer success online is largely influenced by the technology and support employed," says Go Daddy director of networking Tim Parker. "Using A10, we are able to provide the same, top-level service our nearly 11 million customers have come to expect while improving reliability and keeping costs down." ■

## T James Telecoms delivers public access Wi-Fi

Northamptonshire County Council (NCC) has contracted local services delivery company T James Telecoms (TJT) to install a public access Wi-Fi system as part of its digital inclusion strategy.

TJT says it will provide a complete turnkey solution including system design, planning, installation and commissioning of software and hardware. It will operate the network in conjunction with the council.

The firm says the wireless systems will all cloud managed and monitored from its helpdesk in Kettering. It says centrally

managing the system will minimise the operational costs associated with running, configuring and maintaining the network.

TJT is currently in the process of deploying 41 access points from Meraki across 37 libraries. But further phases are already being planned for wider coverage across the county to meet the needs of residents and visitors. NCC says its ultimate aim is to deliver a modern, and cost-effective public access network, and it also hopes to incorporate other commercial opportunities into the scheme. ■



**T James Telecoms is providing Wi-Fi coverage in 37 libraries but further rollouts are planned.**



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communications carrier, XO Communications was able to predict likely customer defections within 90 days, reducing churn by 35 percent the first year.

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IBM



# HP to help Easynet and BT Engage IT to accelerate client migration to the cloud



In two separate deals, BT and Easynet have announced that they will use HP's converged infrastructure to rapidly rollout new value-added services and accelerate their clients' migration to the cloud.

In February, BT Engage IT claimed it had boosted the availability of managed IaaS for UK businesses with services based on HP's *CloudSystem*. Part of the BT Group, Engage IT specialises in solutions for mid-market and enterprise businesses. CEO Rich Lowe said: "Our investment in *CloudSystem*, coupled with

BT's managed WAN capability, allows our customers to leverage the cloud in a controlled manner and meaningfully aggregate end-to-end service performance."

HP claims its system for BT Engage has created a secure, partitioned, virtualised environment that increases agility, flexibility and reliability by automatically provisioning cloud services.

The network also features dual redundant 3PAR *StoreServ F400* tiered storage systems. These are said to have boosted the company's data storage

performance and availability while reducing data centre space and energy usage. HP says tiered storage ensures that the most active data is rapidly accessible, while data used less often is automatically moved to lower and less expensive tiers.

In mid-March, network hosting and cloud integration specialist Easynet selected the vendor to build a secure multi-tenant service platform. It will be based on HP's *Converged Infrastructure*, a centralised, virtualised system. Like BT Engage, it will also use the tiered storage

systems. In addition, Easynet will also deploy HP's *StoreServ Thin Provisioning* software to improve capacity utilisation, which means it only needs to buy disk capacity as and when it is needed. ■

**Both companies will use the HP 3PAR StoreServ F400 system for improved data storage performance.**



## VIEW FROM THE TOP

Alex Moore, director of technology and engineering, NTT Communications Europe

### Bespoke solutions point the way towards the cloud

The cloud is undoubtedly helping to unlock new waves of growth for businesses globally. Yet, with any plans to embrace the cloud come the challenges of moving existing infrastructure and choosing the right methods for maximising the potential returns. In theory, the cloud should excel at seamlessly translating what works in one area of the business in one part of the world to another. However, the reality is often very different.

Migrating to a cloud-based platform can be complicated by the sheer number of variables that determine different kinds of cloud solutions. Details like bandwidth, latency times, and server CPU cores can all impact the performance of the resulting solutions.

The truth is, effective adoption lies in securing the right offering with the best global technical support. That way, organisations can be sure they sign-up for platforms that reflect their current needs and future growth strategy. In short, external expertise is vital to ensuring the CIO can capitalise on everything the cloud has to offer without sacrificing legacy infrastructure which already serves the business well.

Many organisations are now harnessing the cloud to boost the power of legacy apps and emerging technologies

such as software-defined networking. SDN makes it possible to build finely tuned networks over large geographic areas, using software. This makes it easier for applications to be made available to the entire organisation worldwide, and is a particular boon for those with extensive legacy apps with specific networking requirements.

For example, we recently worked with international law firm Stephenson Harwood to design a global low-latency MPLS network and support the global rollout of some applications it had already successfully implemented at head office.

The network we designed has led to a substantial efficiency boost, helping the firm's legal staff to collaborate effectively on complex, large-scale projects across their seven European and Asian offices. In addition, the new network makes remote working and video conferencing a reality for the first time.

CIOs need to remember that the cloud is not just one entity but dozens, if not hundreds, of components working together. While its premise is straightforward enough, actually delivering on it requires insight and experience from specialists. No 'off-the-shelf' solution can offer the future-proofing and flexibility that companies are looking for from the cloud.

## Mothercare goes to the cloud

The Mothercare Group has chosen ConcretePlatform to provide a single cloud-based home for its Mothercare and Early Learning Centre stores.

By centralising all content and a broad selection of workflow processes, the platform will provide the hub for collaborative working across Mothercare's retail estate outside the UK which includes more than 1,000 sites in over 60 countries.

Offered as a subscription-based cloud service, *ConcretePlatform* will act as a 'one-stop-shop' for the company's business documentation and brand materials across its international markets. It will include a central catalogue of merchandise descriptors, marketing messages and pricing, as well as sophisticated artwork automation tools. As such, it's claimed the system will be able to capture local translations and

facilitate the subsequent production of print-ready artworks on budget and on time.

A Mothercare spokesman said: "By using *ConcretePlatform* to spearhead our international brand management, we are confident that we will achieve operational excellence in market, regardless of location or trading format, to support the Mothercare group on a global scale."

As well as its international operations, the group has more than 260 stores in the UK and reported annual revenues of £1.2bn for the last financial year.

*ConcretePlatform* was launched in 2004 to provide customers with a complete suite of applications to manage and measure brand activity in market, regardless of business location or trading format. Its retail clients include Debenhams, Marks and Spencer, Tesco, amongst others. ■

## Skyscape awarded PGA status

Skyscape Cloud Services has been awarded Pan Government Accreditation (PGA) status from CESG (The National Technical Authority for Information Assurance).

Skyscape provides a range of assured cloud computing services dedicated to the UK public sector, and this latest accreditation mean that all its products and services now support IL0 to IL3 data.

The company says it is the single largest provider in Lot 1 of the government's G-Cloud Framework, and that together with its channel partners it accounts for a "significant" number of the accredited services now available.

"Pan Government Accreditation to IL3 demonstrates that flexible, low-cost cloud services can be highly secure and capable of hosting restricted data," says Denise McDonagh, G-Cloud programme director. "Departments will be able to benefit from highly secure, agile and effective business outcomes at significantly lower cost, and PGA removes the need to duplicate the expensive accreditation effort traditionally carried out on a piecemeal basis."

Skyscape says it is currently working on more than 100 projects across central government, local authorities, healthcare, police and other publicly funded bodies. ■

## A comment from leading Uninterruptible Power Supply specialist, Borri Ltd

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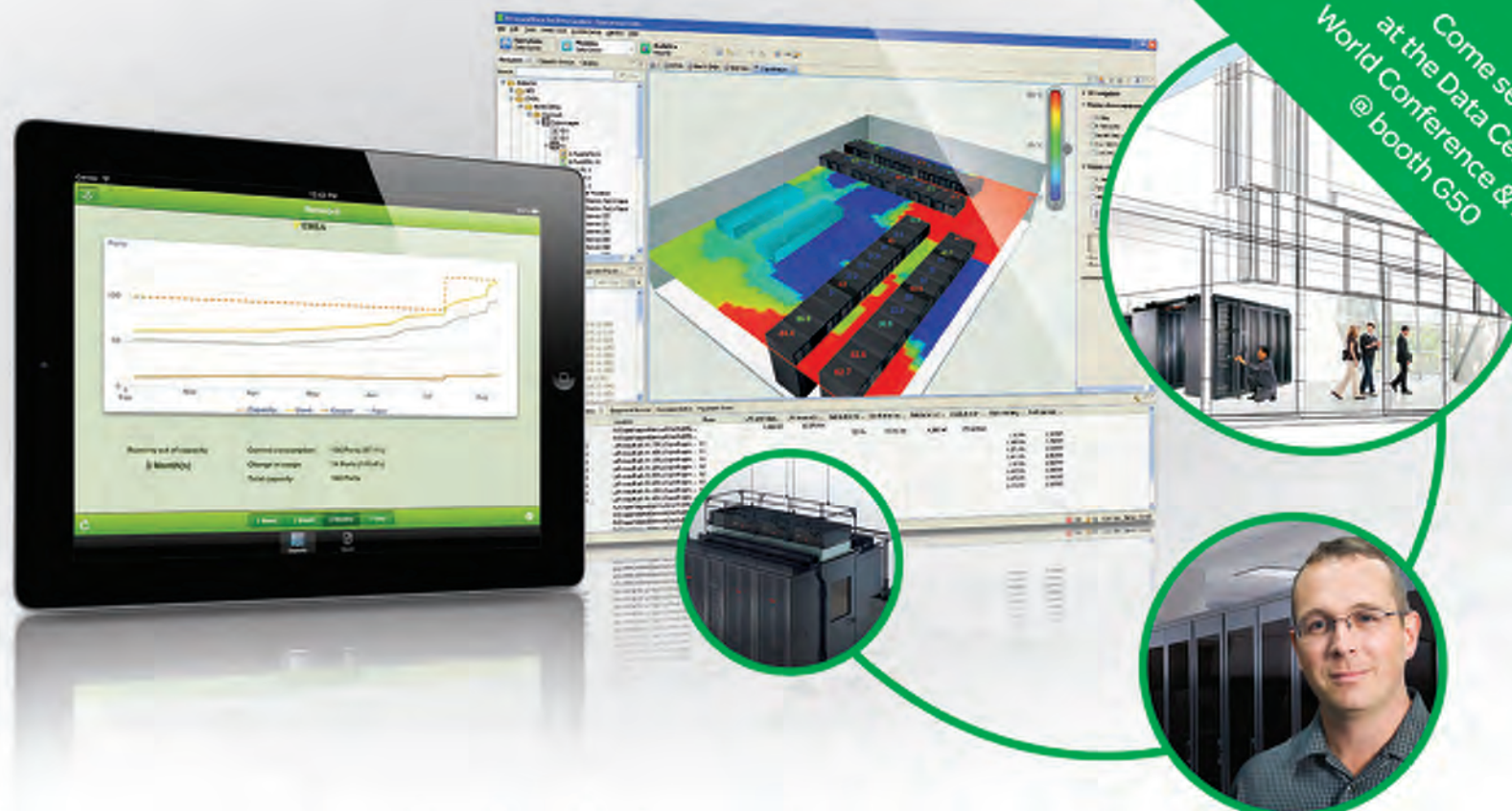
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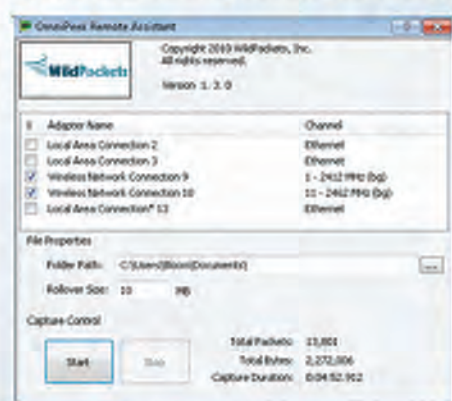
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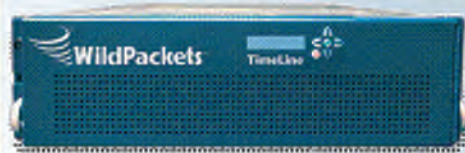
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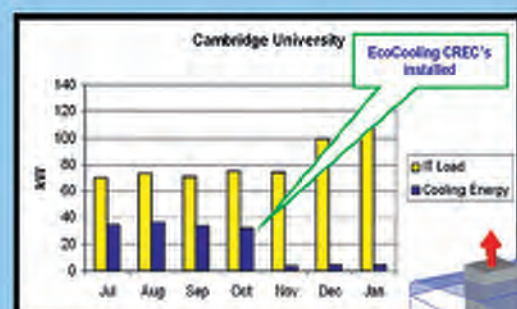
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# Banking on the network

**Financial institutions need networks that are fast, resilient and ultra secure – after all, uptime is money.**

## CIPP chooses not to stick with tape

The Chartered Institute of Payroll Professionals (CIPP) is the UK's only membership association for individuals working in payroll and has in excess of 5,000 professionals as its members. It traditionally used a tape-based backup system but this began to prove problematic as IT coordinator Torsten Roesler explains: "Each night, I would take the previous night's tape home with me. We'd have a daily backup tape at my house, along with weekly backups. So at any one time, I would have two tapes."

There were also logistical issues: someone would have to physically switch the tape during night runs, and holiday periods caused even greater problems. As the institute's data requirements increased in volume and sensitivity, it found itself unable to store everything on a single tape.

The CIPP chose Icomm Technologies to revamp its backup system. Using the vendor's *Cloud Backup* system, the institute's data is now automatically sent to Icomm's remote storage vault in Birmingham and replicated to a satellite location in Manchester. The 600GB data includes the CIPP's customer relationship management and *Exchange* databases.

The institute is also using Icomm's *Ditto* service which regularly takes a snapshot image of its critical server structure and provides failover for six servers. In addition to its *Exchange* server, it has a domain controller which handles file and print functions, a management server for software updates, and Microsoft's *Internet Information Services* server which hosts a number of internal websites. The CIPP also has a Citrix server and an SQL database server used for a CRM system.

Icomm took the servers offline for a short time and made a copy of the images. These were then taken offsite and copied to the backup servers at the two data centres. The CIPP's working data was backed up onto a separate hard drive, but instead of taking it physically to its data centres, Icomm transmitted it overnight via a 10Mb leased line. That process set the working model for the CIPP's ongoing daily backup process. The Asigra software behind *Cloud Backup* copies only the changes that are made to the CIPP's server data on a daily basis, minimising the bandwidth requirement.

"This has radically reduced our recovery time and point objectives," says Roesler. "Icomm can restore our server images to virtual servers, along with the latest data backup. This allows us to log in from anywhere and be fully operational."

CIPP intends to run its own virtualised servers, upgrading from the *Windows 2003* systems it has had since 2005.



## Castle in the cloud

Launched in October 2012, Castle Trust aims to provide a safer way to invest in the housing market or buy a home. It offers investments that provide returns based on the performance of the housing market, as well as 'Partnership Mortgages', a new type of shared equity loan for homeowners where the cost is linked to the homeowner's ability to pay.

As a financial services company, security and data protection are critical considerations for Castle Trust. Following a thorough selection process, it contracted Adapt to host, support and secure its business-critical software. The IT managed services provider is now hosting the software on its *enterprise Virtual Data Centre (eVDC)* platform, and providing built-in backup and disaster recovery capabilities as well as applying rigorous security policies to meet industry regulations.

Adapt says it was also chosen due to its "highly secure, available and robust" infrastructure that is fully compliant with FSA regulations. Furthermore, it came with some good references – some of its existing customers include Moneycorp and LCH.Clearnet.

The *eVDC* provides Castle Trust with synchronously replicated storage that transfers data in real-time between two data centre sites, ensuring maximum availability and resilience. As with the data itself, each data centre is subject to stringent physical security processes such as multi-factor access controls, video surveillance and full audit trails.

According to Adapt, a layer of physical hardware underpinning its *eVDC* provides additional security for Castle Trust's software, as it allows the isolation of sensitive data to ensure any information stored is subject to the highest possible levels of protection.

Castle Trust MD Tony Pauley says: "We needed to be incredibly careful when choosing a service provider and, due to the nature of our business, we had to be 100 per cent certain that the partner afforded the same level of security and protection to the data as we would have applied if we stored it internally. With Adapt's *eVDC* we get complete assurance that strict security protocols are followed, both at the infrastructure layer and the data layer itself."

Pauley adds that as a start-up company, hosting onsite was "out of the question financially" for Castle Trust. A public cloud solution was also unfeasible. "With Adapt we get the best of both worlds, with the added benefit of a flexible solution that will scale with our business," he concludes.

## RFID sensors keep it cool

Global IT project management firm PTS Consulting has successfully tested a new data centre using RF Code's innovative monitoring system.

RF Code specialises in real-time asset management and wire-free environmental monitoring solutions. Its active RFID-based solutions are said to be unique and claim to provide IT professionals with a more efficient, cost-effective approach to managing IT assets and keeping technology environments in an optimal state.

During the testing phase for the financial institution (which cannot be named), PTS needed a solution which could monitor in real-time the temperature and humidity of the new 40,000ft<sup>2</sup> data centre. It also needed immediate alerts if any areas of the facility went outside the parameters, as well as fast deployment due to the testing dates being brought forward.

Using RF Code's environmental monitoring solution, PTS was able to see the live performance of each cold aisle and ensure each area was receiving its correct temperature. Real-time data was provided via *RF Code Sensor Manager's* GUI, with

data delivered from 150 sensors placed across the data centre. The system ensured the data centres redundancy testing was validated, helped confirm humidity levels were within the tolerance bands set during the design phase, and provided actionable data when a thermal runaway outage occurred. Dashboards were also setup to provide PTS' client a high-level overview of how the data centre was performing at each test.

PTS engineers had never used RF Code's system before, but due to the ease of the solution they were able to deploy the sensors within one working day. Software configuration and training was required, but only took one additional working day. RF Code also supported the deployment with technical onsite support and user training to guarantee timescales were met.



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# Bending the rules with flexible working

*Hot desking takes on new meaning as firms look to save on office rents and workstations using unified communications.*

PHOTO: © ANT HAMPTON 2010

**Can unified communications save UK businesses £34 billion per year as Vodafone has recently predicted? IAN GRANT looks at the reality behind the technology trend.**

**E**arlier this month, mobile operator Vodafone produced the eye-catching headline, “Flexible working can save British business £34 billion”, adding that it could do this by “turning desks into dosh”.

Like many surveys commissioned and published by companies with a vested interest in the outcome, the results depend largely on the questions asked and the assumptions made. These combine to lead readers to an ‘inevitable conclusion’, which is to immediately buy whatever solution the firm is offering in relation to the question.

Vodafone’s claim has extra piquancy in the light of Yahoo CEO Marissa Meyer’s recent ban on home working. This resulted in a storm of comment among the Twittering classes. More about this later.

When it comes to flexible working – or more accurately, the ability to work from anywhere, any time, (and usually from home) – and its technology enabler, unified communications (UC), the most highly valued tools are those most likely to save firms money, says market researcher Frost & Sullivan. These are audio conferencing, VoIP, instant messaging, and web and video conferencing. More advanced communications, including presence, integrated clients and telepresence, are rated most highly for driving productivity and business processes, including improved employee mobility, speedier decision making, and improved support for worker collaboration.

Five years ago, 57 per cent of workers spent all day in their offices. Today, according to a Siemens Enterprise Communications survey of 165 delegates at the recent UC Expo, only a quarter spend five days a week in the office. In addition, those who spend less than one day a week in the office have doubled from seven to 15 per cent. Almost half said UC-enabled mobility maximised employee productivity, improved business processes and response times, enabled consistent access to real-time information and people, and supported new ways of working.

Despite Vodafone’s hype, there are real issues around UC. They are the result of the impact in the workplace of long-term changes in IT devices, communications, the nature of work, employment

practices, and the social economy. So whether Vodafone’s claim reflects reality or not, it is worth exploring.

## Getting rid of desks

Vodafone commissioned pollster YouGov to ask 500 businesses about their attitudes to flexible working. Respondents estimated flexible working could save an average of 46 desks, and reckoned this would save them £441 per desk in costs. Vodafone claims this is less than one-tenth of the actual savings to be had.

The operator quotes global property firm DTZ which analysed the main components of occupancy costs per workstation. Last year, DTZ looked at 126 business districts in 49 countries, ranking each location based on costs per workstation per year. These included rents and expenses such as maintenance and property tax, and took account of different attitudes to space utilisation.

Reporting in January, DTZ said the global average occupancy cost in 2012 was \$7,495 (£5,746) per workstation. “London’s West End [became] the world’s most expensive business district at US\$23,500 (£18,015) per workstation,” it said. The City of London came ninth in DTZ’s top 10 most expensive cities for office space.

This finding suggests that Vodafone may actually be underestimating the saving to be gained, at least by UK companies. That alone should spur firms to reconsider UC,

and it appears they are doing so. Most respondents (77 per cent) told YouGov that they measure success by results rather than time spent in the office. “Yet only one in five thought they could get rid of desks through flexible working, and 37 per cent haven’t even considered flexible working as a way of cutting costs,” YouGov found. Just over one in five (21 per cent) employers thinks that all staff members need their own office-based desk, while 23 per cent believe that employees end up abusing flexible working privileges, despite the tendency to measure performance by results.

Vodafone argues that by introducing shared workspaces, ‘hot desks’, and enabling personnel to work from anywhere, in or out of the office, businesses can save on property and fixed desk costs. “At the same time, they can improve collaboration and build a sense of community in the workplace,” it claims.

While Yahoo’s Meyer may agree about the savings, she has her doubts about the cohesiveness that flexible working engenders. A leaked internal memo announcing the end of Yahoo’s home working policy explained: “To become the absolute best place to work, communication and collaboration will be important, so we need to be working side-by-side. That is why it is critical that we are all present in our offices. Some of the best decisions and insights come from hallway and cafeteria

discussions, meeting new people, and impromptu team meetings. Speed and quality are often sacrificed when we work from home. We need to be one Yahoo, and that starts with physically being together.”

The new policy shocked many in Silicon Valley, where the creative freedom associated with the work anywhere, anytime ethos is highly valued. But in the days after the leak, anonymous Yahoo staffers came forward to support Meyer, saying too many people were abusing the privilege.

But was the hoo-hah created by Yahoo’s new approach nothing more than a storm in a teacup? The search engine company has certainly been treading water, going through six CEOs in as many years. Ex-Google Mayer, who became CEO and a new mum almost simultaneously, has spent six months in the job. She clearly needed something that would get the attention of staff, and the new rule has done that. But it seems to be more about changing the Yahoo culture and building visible dedication among staff rather than anything else.

## Billion pound savings with UC

So how widespread is flexible working in the UK? In the 2011 census, the Office of National Statistics (ONS) found 1.4m out of 29.2m workers work at or mostly from home. Some 63 per cent of home workers are self-employed, and two-thirds are men.

The Live/Work Network, which seeks to promote home-based businesses, further analysed the data to reveal there are now some 3.8m flexible workers, or just over 13 per cent of the workforce. That’s about half the rate in the US, where the Bureau of Labor Statistics reports that around a quarter of working Americans work from home at least some hours each week.

The Families and Work Institute, a US non-profit group that monitors changes in the workplace, says 63 per cent of employers allow staff to work remotely. The UK is behind the US on this too; YouGov shows 42 per cent of firms allow staff to work from home. Some 63 per cent of YouGov respondents agreed that employees don’t need to work 9 to 5, and that flexible

**Yahoo CEO Marissa Meyer surprised many when she brought to an end flexible working arrangements for her staff. She believes that the potential savings of not having to equip as many desks are outweighed by the gains made by working side-by-side in the office.**





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working leads to a happier workforce. Even so, nearly a quarter (22 per cent) do not practice flexible working.

These figures are arguably misleading. Millions of employees access their work emails and messages using the mobile networks or Wi-Fi while out of the office, and not necessarily from home. Many also have access, via smartphones, laptops and tablets, to hosted corporate systems like Salesforce.com or even 'behind the firewall' applications like Oracle and SAP systems. And staff at countless companies store company data on cloud storage servers like *Dropbox* and *Google Drive*, just in case their office systems go down. The firms that employ them are likely to be most susceptible to Vodafone's message.

So how many are there? ONS figures show that of the UK's 208 million firms registered for VAT or which pay PAYE, 88.8 per cent employ fewer than 10 staff, and 98 per cent have fewer than 50. Sole traders make up 23.3 per cent of firms, partnerships 12.7 per cent, and the government and NGOs 4.2 per cent. That leaves a balance of 59.8 per cent which is made up by private companies.

Large enterprises (those with 250+ staff) account for only 0.4 per cent of all firms. That means just 8,320 companies are of a size capable of "losing" an average of 46 desks. If Vodafone's assumptions are accurate, this suggests UC can deliver savings of between £2.2bn and £11bn. Those are still big numbers and worth pursuing – but that's not what Vodafone claimed.

## Why unified comms?

There is little doubt that technology in the form of mobile devices such as smart-



**"£33] has been the price ever since Google started, and has stayed the same while Google has added more functions"**

Andy Eden,  
Sales manager,  
Netpremacy

phones, wireless communications such as Wi-Fi and cellular, and cheap fixed and mobile broadband links has allowed firms to reconsider UC. But it's the mobile device that is radicalising current thinking. Indeed, the earliest mass adopters of mobile phones were self-employed tradesmen, mainly because it meant they never missed a phone call that could lead to work, and they never had to leave a job site to see if a supplier had the right parts. Their productivity has soared. But then again, most of them never had desks anyway.

At the other end of the scale has been the integration of telephony and IT, typically in vast call centres. These are now highly specialised and optimised to sell goods or deal with customer relationships. Cheap international telephone rates, SIP trunking and VoIP, and location-based salary differentials, allow call centres to be sited so as to minimise their running costs.

But these applications of integrated communications are merely the low hanging fruit. In the list of Gartner's top 10 technology trends for 2013, no fewer than seven

relate to unified communications: mobile operating systems, mobile apps, personal clouds, enterprise app stores, the internet of things, 'actionable analytics' (Big Data), and integrated ecosystems. Putting these together in a coherent package that firms can exploit successfully is tricky. Vodafone is leading the charge. This follows its billion-pound purchase of Cable & Wireless Worldwide. In November, the mobile operator announced the formation of its new group enterprise unit under CEO Nick Jeffrey. It has four operating divisions: global enterprise, carrier services, M2M solutions, and hosting and cloud services. With the exception of apps and analytics, this line-up matches Gartner's trends list precisely. It should be no surprise then that Vodafone wants to drum-up business for the new division.

The company could be onto a good thing. According to research commissioned by US carrier AT&T from European business school INSEAD, UC can double a firm's competitiveness because it helps to standardise processes and add functionality. Nils Fonstad, associate director of INSEAD's eLab, suggests the corporate drive to boost competitiveness will accelerate global investment in UC, mobility and cloud-

based services over the next two years.

In this scenario, Vodafone's main strength is its global reach. Potentially, this makes it an attractive partner for similarly shaped companies. (Admittedly, its relationship with Verizon in the US is a bit unsettled at present.) But it faces tough competition. AT&T harbours similar ambitions of being the global systems integrator for UC. It has made its cloud-based UC services portfolio available in the US and 48 countries, and combines presence with instant messaging, chat, voice calling, and web, audio and videoconferencing.

So what are the UK's other mobile operators doing? France Telecom's subsidiary Orange has a well-developed UC pitch to businesses, strengthened recently by teaming up with content delivery specialist Akamai. T-Mobile and Orange, the two partners in EE, both have well-established enterprise US offerings; however EE declined to say what the offer from the merged firm will be. Telefónica's O2, fresh from selling its 500,000 retail broadband customers to Sky for up to £200m, has so far not responded to questions about its enterprise customers. And Three, the UK's smallest mobile operator, seems set on being a 'dumb pipe' for businesses to carry their UC apps.

As in other markets, the network operators are threatened by 'over the top' providers. Companies such as Google and Microsoft (which now owns *Skype* and *Yammer*) don't run networks as such but provide services over the top of the carriers' networks. This allows them to price their offerings extremely attractively.

Andy Eden, sales manager at networked systems integrator and *Google Apps* reseller Netpremacy, says firms can access the full range of Google's enterprise

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products, including videoconferencing, for £33 per user per year. "This has been the price ever since Google started, and has stayed the same while Google has added more functions," he says.

Eden makes the point that Google has worked especially hard on making the interworking seamless between the apps in *Google+* and *Android* devices. What's more, access to Google's *Hangout* videoconferencing platform will support up to 10 participants, is free to all *Google+* users, and available to anyone with a Wi-Fi or mobile data link and an ISP account.

Many firms worry about security in the cloud. Eden reckons there is little to beat Google's security, which has tightened since it was hacked in 2011. He says 'DB sharding', a technique to isolate slivers of data in massive databases, ensures that if hackers get lucky, they can access only limited, encrypted data that is segregated from related data sets in other 'shards'.

Eden adds that Microsoft's plan to end support for *Windows XP* on 8 April 2014 is making a lot of firms think hard about their next 'ecosystem'. He believes some, if not most, will adopt a cloud-based solution that integrates tightly with mobile devices for all sorts of apps and services.

Microsoft itself has a similar vision based on *Lync* and *Office 365*. *Lync* offers enterprise class instant messaging, VoIP and videoconferences, access to *Office* products and *Outlook* contact databases on *Exchange* servers as well as mobile clients.

Roy King, Microsoft's senior manager for *Lync* product, says that Canadian mobile operator Rogers is offering a UC service that is aimed primarily at enterprises and is based on *Lync*. "We've had a lot of interest in this 'syndication' route to market. Microsoft has signed up about 20 partners." He says that Vodafone and Dutch carrier KPN are among the carriers reselling *Lync* and *Office 365* for UC applications.

King goes on to explain that the offer from partners can be as a standalone, hosted or managed service. Sometimes, as with BT, it can be all three. The telco launched *One Cloud* last October, and said at the time that it had signed up a global energy company for 10,000 *Microsoft Lync* seats. The service will incorporate instant messaging and presence in addition to audio, video, and web conferencing. BT claims that *One Cloud* will also deliver full enterprise voice functionality to the entire user population, initially in the US and then globally, providing a full PBX replacement service for the customer.

So where does UC leave the traditional PBX vendor? Once one of the leading suppliers of PBX systems, Siemens Enterprise Communications (SEC) is now a software house. Rick Puskar, the firm's SVP of global portfolio management, says SEC is taking a "mobile first approach" which means its future UC products will assume that users will want to use them while on the move. "It's all about giving the user the same high-quality experience from the desktop to the mobile phone to the tablet. And mobile is critical to us," says Puskar.

The company has already begun moving in this direction. In January, its subsidiary Enterasys announced support for mobile security and device management supplier AirWatch, to address the growing BYOD issues. And next month, SEC will introduce instant messaging to its *OpenScope Mobility* suite (the company is shifting to quarterly release dates for new software). After that will come support for 4G devices, with full Voice over LTE (VoLTE) support released towards the end of the year.

Another part of SEC's strategy is to be able to support third-party UC environments such as *Google Apps*, *Microsoft Lync* and

IBM's *Sametime*, and to offer *OpenScope* as a white label product to carriers and communications service providers. Puskar reckons this is an attractive option for vendors aiming at the tricky market of firms with 250 to 1,000 seats. He reckons many of these will need to choose between a hosted and an in-house US operation, effectively between a public and a private cloud.

But Siemens is not abandoning its traditional users. In March, it introduced *OpenScope Business*, which integrates features from existing *HiPath 3000* and *OpenScope Office* SME suites to deliver voice, UC, web collaboration, mobility and "seamless integration" into office applications in a single solution for SMEs. The firm adds that the new platform also offers *OpenScope Office* and *HiPath 3000* users a migration path to UC without abandoning their current investment.

## Getting a 'like' for UC

The 'final frontier' for UC suppliers is to integrate social networking into their offers. But mobile device vendors and social networking sites may have beaten them to it. For example, estate agency Foxton's has developed its own app for a Nokia *Lumia* Windows-based phone. The app acts as the agent's office on the move, and even allows users to shoot video, edit, and then embed it in emails and advertising, as well as carrying contact details for buyers and sellers. The next step could be to hook into banks' mortgage departments and conveyance lawyers to handle the financing and paperwork electronically, or even using analytics to match buyers and sellers.

Meanwhile Facebook boss Mark Zuckerberg has had to deny ongoing rumours that the social network is about

to introduce its own smartphone. The thinking is that Facebook wants to capture more of the mobile advertising revenue that already makes up about a quarter of its sales. However, since most smartphones and even feature phones these days come with Facebook pre-loaded, it's hard to see what the company would gain from a hardware play in such a dynamic sector.

More likely, firms may turn to enterprise social network tools like *Yammer*, which Microsoft bought last year. *Yammer* has APIs that allow organisations to link to enterprise tools such as *SharePoint* and *SAP* to create a unique social network.

Whether these will be sustainable against the might of Facebook, Google+, Twitter, etc seems unlikely. But so far, the social networks have concentrated on consumers; time will tell if they care about any businesses except their own. ■

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## off-the-shelf: security

## To serve and protect

**Protecting your network against unauthorised access and attacks involves more than just installing anti-virus software, as this lot proves.**

MVNO **Anvil Mobile** says it's launched the first hybrid service that encrypts mobile voice calls to any other mobile or landline number, and can also protect all incoming calls from local interception.

The *Secure Mobile* app is powered by SiRRAN Communications and is said to ensure "complete call privacy and security" across any mobile or wireless network. Anvil says the *Standard* version encrypts calls between two *Secure Mobile* enabled handsets, providing complete end-to-end protection. The *Advanced* version can safely make or receive calls from landlines or mobiles anywhere in the world with full encrypted voice protection for both parties over the local leg of the call.

The app will run on any smartphone with *Android 2.3* or later and on *iOS4*, *5* or *6*. After downloading it, users request contract and activation details, and an additional *Secure Number* is then provided that works

with the existing mobile number. Anvil says both numbers work when called but any calls made to and from the secure number are protected with advanced 256-bit AES encryption. To make a secure call, the user just selects the icon from the phone screen or it can be set as the default so that all calls are made securely.

The app is said to provide "easy-to-use, seamless integration" with existing phonebooks for convenient access. It is also possible to hold and transfer to another number or use three-way conferencing with the service.



**Arbor Networks' Pravail Network Security Intelligence (NSI)** platform monitors network traffic data and uses advanced analytics to help organisations "close the security gaps" left by firewalls

and intrusion prevention systems. According to the firm, *NSI* looks inside the network and delivers the "situational awareness" required to identify advanced threats, network abuse, and also infected

mobile devices connected to the network. Arbor claims IT teams can use the system to: identify and address misuse of corporate resources and servers; detect and defend against advanced threats such as malware and botnets; monitor critical services and systems and issue alerts about suspicious activities; identify new devices on the network; and use detailed intelligence from inside the network into users, apps, services, domains and URLs.

*Pravail NSI* leverages Arbor's *Peakflow* traffic management and network security platform as well as its *ATLAS* internet threat monitoring system which have both been deployed in data centres worldwide. *NSI* uses data



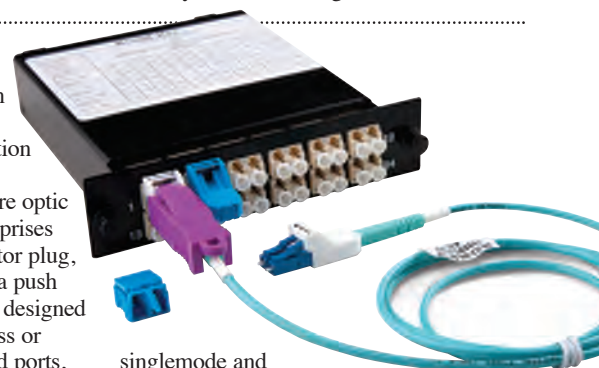
provided by these systems to stay up-to-date against the latest attacks. Using 'Active Threat Feed' data, the appliance inspects, analyses and then categorises network traffic into a composite threat, enabling security administrators to identify malware at a glance.

**Brand-Rex** says its *Secure LC Patch Cord* system can be used in any network infrastructure where security is priority and the protection of sensitive data is paramount.

Part of the firm's *FibrePlus* fibre optic cabling portfolio, the system comprises a secure patch cord, a blank adaptor plug, and an extraction key. It features a push to latch and lock system which is designed to prevent unauthorised port access or changes, restricts access to unused ports, and is said to offer complete protection from the ingress of dust.

The patch cord can only be removed using the unique extraction key which unlocks and releases the connectors. They keys are available for custom applications and are offered in a variety of colour-coded options so that they only release the same coloured LC connector or blank adaptor plug.

The patch cord can be supplied in a variety of lengths. It is compatible with



singlemode and multimode fibre optic-based systems, and can be plugged into any industry compliant duplex adaptor, quad adaptor, or active interface. The company says it is particularly suitable for high-density applications where space is at a premium, and its design means it can be easily accessed when installed in a cabinet.

The *Secure LC Patch Cord* system can also be retrofitted into an existing installation and does not require the purchase and use of special adaptors.



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The *Enigma* self-encrypted drive (SED) from **Origin Storage** is claimed to be the first solution to provide a quick and cost-effective way to secure laptops using hardware AES 256-bit encryption.

The firm says having hardware-based encryption eliminates complexity by building it into the hard drive. It adds that there is no performance impact because the encryption takes place on the fly.

Each *Enigma* is ready to fit straight into a laptop, and allows users to easily move their data from the old drive to a new one, and install it quickly and simply.

The SEDs come complete with a USB/SATA data transfer cable, and the *Wave EMBASSY Security Centre (ESC)*. Origin says this is the first industry-wide application for managing 'Trusted Computing', delivering advanced levels of security to the client PC using the TPM security chip found on most enterprise systems today.

With more companies adopting BYOD policies, **WatchGuard** reckons it two new wireless access points (APs) will provide them with the same level of security for WLAN traffic as traditional wired traffic.

The firm believes current procedures to manage the BYOD trend offer limited security measures and are only effective within a VPN or hard-wired environment. This leaves mobile devices vulnerable to intrusion and malware when connected to a wireless network.

WatchGuard has developed the *AP100* and *AP200* to extend the policy-based management features of its *XTM* range of firewalls to the wireless environment. It says

*ESC* features a variety of productivity benefits including self-encrypting drive management. According to Origin, it is easy-to-use and is compatible with all TCG-compliant secure hardware platforms. Users can also optionally upgrade to a central managed server-side administration system.

The *Enigma* is currently supplied with a choice of encrypted mechanical disk or SSDs. The firm says its 128-bit AES, FIPS 140-2 accredited solutions use Seagate *Momentum* SED drives which feature fourth generation self-encrypting technology. In addition, it says all the SSDs are TCG Opal compliant and come in capacities of

128GB,  
256GB  
and  
512GB.



this means customers are able to accurately and easily apply security policies and changes to both wired and WLAN resources simultaneously.

The vendor adds that with its firewall's unified management tools, users can configure and manage their wireless APs and

*XTM* device from a single console, reducing setup time and maintenance costs. It says

*XTM*'s security features, such as IPS, application control, *WebBlocker* and *spamBlocker*, can be applied to WLAN traffic to help customers achieve "complete, scalable network security".





## IT hiring at four times the rate of retail as online sales boom

Last year saw a rise of 12 per cent in IT and web design hiring according to analysis by specialist technology recruiter Greythorn. It found that the total number of roles has risen by 32,000 over the past year.

Citing the Office of National Statistics' (ONS) *Annual Survey of Hours and Earnings*, Greythorn says that from 2011 to 2012, the number of IT business architects and system designers grew 18.8 per cent from 85,000 to 101,000.

But the biggest increase has been in web designers which has risen 19.4 per cent from 31,000 to 37,000 roles. According to the British Retail Consortium, online spending grew 10.9 per cent in the year to February 2013 – two-and-half times the rate of total retail sales.

To address this, Greythorn says a number of large online retailers have significantly bolstered their IT teams, including John Lewis which announced the recruitment of 100 new staff in January 2013. From its own figures, Greythorn has seen growth of 89 per cent in IT roles placed in online retail over the past year compared to the previous twelve months.

As well as an increase in roles, IT salaries are also typically higher than those in retail. According to data from the ONS, the average salary of an IT system designer is £37,092, whereas a retail manager with a similar level of seniority earns an average salary of £21,237.

Greythorn director Mark Baxter says that a career in IT is potentially "very lucrative" and the number and diversity of roles is growing rapidly. "Obviously, there are specific technical skills that are needed, but it is a candidate's market for experienced IT professionals who are either already in online retail or those in other sectors with transferable skills. For people looking to re-train, web design and online retail offer excellent opportunities that will only increase as people vote with their feet and choose to stay at home rather than shop on the high street."

However, the firm also points out that due to increased numbers and new roles, IT pay has seen slow growth with rises of 0.35 per cent for system designers and 1.18 per cent for software developers. There has also been around a half a per cent fall in pay for web designers.



Greythorn director Mark Baxter says that a career in IT is potentially "very lucrative".

## EG Solutions and DorIS commit to fostering young IT talent

Global back office optimisation software company EG Solutions has joined forces with DorISCentral (DorIS) to discover and mentor graduates from all over the UK, starting with a fresh intake of five graduates.

DorIS is a start-up IT services firm, and its key service is focused on introducing UK-based talent to the IT industry through

training and placement in established organisations. It will support the new graduates that EG has hired with training in conjunction with the UK National Skills Academy. Each graduate has been hired under an initial six month contract, and will be mentored by experienced IT professional service and project managers with proven track records.

"Nearly four in 10 of those that are unemployed in the UK are aged between 16 and 24 – that's school leavers up to



EG Solutions CEO Elizabeth Gooch aims to tackle the IT industry's skills shortage.

postgraduates," says EG Solutions' CEO Elizabeth Gooch. "By working with DorIS, EG is able to tackle head-on the skills shortage in the IT industry as well as injecting a wealth of new talent and blood into growing our business."

## NEW COURSES

**MapR certified training courses – MapR Technologies & Big Data Partnership**  
Hadoop specialist MapR Technologies has teamed up with system integrator Big Data Partnership (BDP) to deliver Europe's first MapR certified training courses.

BDP's certified MapR courses are aimed at system administrators and technical architects to teach core skills needed to develop, implement and administer MapR Hadoop installations. The programmes cover M3, M5 and M7 versions of MapR as well as



best practice management and integration techniques for integrating the system with critical database and analysis applications.

By working with BDP, MapR will support projects and create training material that delivers value to organisations adopting MapR technologies for Big Data projects. [www.bigdatapartnership.com](http://www.bigdatapartnership.com)

## VMware vSphere Install, Configure, Manage 5.1 – New Horizons


This five-day course explores the installation and management of VMware's vSphere, and is based on pre-release versions of VMware's ESXi 5.1 and vCenter Server 5.1.

It is aimed at system administrators, engineers and operators responsible for vSphere. The course takes place from 15 April at New Horizon's London training centre, but delegates can also participate live online. [www.newhorizonslondon.com](http://www.newhorizonslondon.com)





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