

networking

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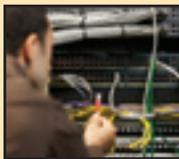
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UK's first nationwide Internet of Things network is launched

by Abdul Montaqim

Communications infrastructure company Arqiva has launched what's believed to be the UK's first nationwide Internet of Things (IoT) network. The company has partnered with French IoT specialist Sigfox which has already established machine-to-machine (M2M) networks in several other countries.

The two companies first announced their partnership to create a dedicated UK IoT network in May 2014. Their initial commitment was to connect the country's ten largest cities: Birmingham, Bristol, Edinburgh, Glasgow, Leeds, Leicester, Liverpool, London, Manchester and Sheffield. Earlier this month, sites in each of these cities went live and are now connected to Sigfox's global IoT network.

Arqiva says it will connect more UK cities but has yet to decide which. Wendy

McMillan, the company's MD of M2M solutions, says: "We plan to roll out nationally over the next couple of years but have not yet decided on the specific details of the next phase. Our next phase of expansion is, however, likely to be influenced by where we see strong demand for Internet of Things services emerging."

Sigfox is providing the key infrastructure needed, including cellular base stations and antennas using license-free 868MHz spectrum. It will also host and operate the back-office IT systems needed to manage the network.

Arqiva says it has installed a radio mast at each site. These will receive signals from the connected 'things' using Sigfox's radio network. The signals are then be routed to the *Sigfox Connectivity*



Arqiva says its IoT network will enable a range of smart city and intelligent building applications.

Cloud, enabling customers to access and check the data their devices are sending.

The potential of the IoT is subject to much speculation. A Cisco study earlier this year predicted there will be 50 billion connected devices globally by 2020, and it suggests that each household in developed markets could host up to 500 connections.

Arqiva expects many different types of companies to use its network. McMillan says that together with existing connectivity such as street-level Wi-Fi, the UK's biggest cities are becoming hubs for digital innovation. "A whole host of smart city and intelligent building applications

can now deliver benefits, from smart parking and waste level monitoring through to connected smoke alarms."

Sean Weir, the firm's business development manager, provides further examples of users: "A logistics firm wanting to track items along the distribution chain, health management companies wanting to check on the well-being of people in their care, buildings and facilities managers wanting to check and manage lighting and heating systems – there is lots of interest from all sectors of business. We are just at the start of the journey."

(Continued on page 2)

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Qualcomm to enter server market

Qualcomm has decided to enter the market for server chips. The firm, better known for making mobile phone chipsets, believes it will be able to transfer its technical knowhow to the data centre market.

During a keynote address to analysts in New York in early December, Qualcomm CEO Steve Mollenkopf revealed that the company had been working on the technology "for some time".

"Now we are going to have a big product that goes into the server. We are engaged with customers. It will take us a while to build this business, but we think it is an interesting opportunity going forward."

Mollenkopf believes chip technology for smartphones and data centres are

converging. "If you look at Qualcomm's roadmap, the high-end design point for our high-end smartphones, and the evolution of laptop and tablet, [they are] really starting to merge with what is feasible to put into the data centre," he said.

Qualcomm currently has no presence in the market for server semiconductors, but does have a 58 per cent market share in the smartphone chip market, according to some estimates. The global server industry represents a \$15bn market for chips and is dominated by Intel. It's unlikely that Qualcomm can dislodge the leader, but it could possibly compete with smaller players such as AMD which is thought to have just a three per cent share. ■



Arqiva's Wendy McMillan says the IoT will enable a whole host of smart city and intelligent building applications.

The Internet of Things

(continued from page 1)

Greenwich is one of the first sites to go live in London. The borough aims to establish itself as a leader in smart city innovation and recently announced that it will host a pilot scheme for the introduction of driverless cars in the UK.

Council leader Denise Hyland says the IoT network will bring benefits to all residents, and will ultimately improve how the borough delivers its services. "This technology will help cities tackle economic and social challenges and will help solve issues like traffic congestion as well as enhancing security, and making heating and lighting more efficient."

Sigfox says its network complements existing high-bandwidth systems by providing economical, energy-efficient, two-way transmission of small quantities of data. It claims that this lowers barriers to wide implementation of IoT and M2M solutions, and greatly extends the battery and service life of connected devices.

The company's global network is deployed through its network operator partnership programme, and is said to have already covered more than a million square kilometres.

In Spain for example, it has worked with Abertis Telecom on the rollout of an IoT network. One of its customers includes security alarm supplier Securitas Direct. It found that burglars were using GSM jammers to stop its alarms sending signals to the control centre. By using the IoT, Securitas' burglar alarms can now bypass public cellular networks, and instead send signals via Sigfox's network, thus rendering the burglars' GSM jammers useless. Securitas now has five million devices connected through Sigfox. ■

Performance a problem for CIOs

Only one-third of UK companies say their internet performance is consistently reliable, according to a new study.

Research commissioned by Dyn and carried out by Vanson Bourne, shows that only 36 per cent of businesses say their internet performance is uninterrupted and stable. This is despite the fact that half of UK companies have a prominent online presence in international markets, and are particularly interested in emerging markets such as Brazil, Russia, India and China.

Three-quarters of the IT decision makers questioned said there were factors outside of their own network which affected internet performance, but only half – 52 per cent – actively monitored these factors, according to the survey.

More worryingly, perhaps, a quarter of respondents admitted that they do not have a backup plan in the event of natural disasters, outages and delays, and 15 per cent revealed that they do not monitor customer experience performance at all. ■

Encrypted internet traffic creating "perfect conditions" for cyber crime

The growing use of encryption on the internet is creating the perfect conditions for cyber criminals, according to new research by Blue Coat Systems.

The business assurance technology specialist says that as concerns around personal privacy have grown, so too has the level of encryption used by websites, many of which now use SSL on all or some of their pages. And, contrary to what one might expect, Bluecoat says this has made it easier for hackers to hide malware inside encrypted transactions.

Dr Hugh Thompson, the company's chief security strategist, says: "The tug of

war between personal privacy and corporate security is leaving the door open for novel malware attacks involving SSL over corporate networks that put everyone's data at risk.

"For businesses to secure customer data and meet regulatory and compliance requirements, they need the visibility to see the threats hiding in encrypted traffic and the granular control to make sure employee privacy is also maintained."

Blue Coat says its research shows that the lack of visibility into SSL traffic is making it a prey for cyber criminals. It says the main reason for this is that

malware attacks can use encryption as a cloak, and they do not need to be complex because the encryption prevents the attack from being easily seen.

The company says 'Dyre' is an example of an unsophisticated malware threat hiding in encrypted traffic. Dyre is widely distributed password-stealing Trojan that originated in the Ukraine and targets some of the world's largest enterprises.

Blue Coat believes it is able to steal social security numbers, bank account information, protected health data, intellectual property and more, precisely because it uses encryption. ■

Video-conferencing suites support Cystic Fibrosis patients at Nottingham University Hospital

In an initiative to improve the experiences of Cystic Fibrosis patients, Nottingham University Hospital NHS Trust has developed a new facility that uses video technology from Cisco.

The hospital has created individual patient rooms that are equipped with the vendor's hardware and Jabber Guest software to not only enable high-quality

video calling with family and friends, but virtual participation in group classes.

The rooms include a Cisco Video network, and feature the company's DX80 range touchscreen intuitive control, HD cameras, and patented Speaker Track technology. It's claimed this creates a far greater user experience as the camera dynamically changes

viewing perspectives based on the individual speaking. The facility is supported by a the vendor's LAN, wireless capability and security.

"People with Cystic Fibrosis regularly spend weeks at a time in hospital meaning their units become a second home," says George Jenkins, chairman of the Cystic Fibrosis Trust. ■

Continuity plan means business as usual for hotel

In early October, a devastating fire resulted in the temporary closure of the Grade II listed Crathorne Hall Hotel in Yarm, North Yorkshire. But as a result of executing their business continuity plan, the owners were able to minimise any disruption caused by the blaze.

Key members of staff, including mission critical contact centre workers, were moved to a nearby workplace recovery centre owned by North East technology firm Onyx Group prior to the hotel reopening just six weeks later. Onyx says its site in Stockton is the only such centre of its size and scale in Teesside, and can host up to 200 members of staff at a time.

Crathorne Hall is owned by Hand Picked Hotels. Its commercial director Ken Arkley says: "It was essential in the short-term that our staff still had full access



Crathorne Hall Hotel in North Yorkshire suffered extensive damage after a fire started in the roof space of its east wing in October.

to our files and IT systems. The ability to carry out our day-to-day business activities is pivotal not just for the hotel, but also for the company as a whole.

"The phone support for our whole company is based in the north east and it was imperative to us that we were back on

our feet as soon as possible. Our customers are our most important concern, and prior to the hotel reopening our staff worked tirelessly to make sure those who were booked into the hotel found appropriate alternate venues."

Onyx Group CEO Neil Stephenson says the incident highlights the importance of a strong business continuity plan. "With the winter coming, the chances of flooding and adverse weather conditions further heightens the risks facing businesses. Combining an off-site recovery facility with state-of-the-art data centres, means a business can replicate its IT infrastructure and continue to operate, no matter what happens."

Following its investigation into the fire at Crathorne, North Yorkshire Fire Service said the most probable cause was an electric fly killer in the hotel's roof space. ■

Optical transport platform to speed up rail traffic

Infinera is working with Telefónica UK to provide networking technology to Network Rail.

Network Rail maintains 20,000 miles of track, 40,000 bridges and viaducts, as well as thousands of signals, level crossings and stations throughout the UK.

This latest deal is being undertaken as part of Network Rail's modernisation programme and is being handled through Network Rail Telecom (NRT), its communications arm which manages a 16,000km nationwide fibre network.

NRT will use Infinera's DTN-X packet optical transport network (OTN) system as part of an advanced communications platform. The U.S. vendor claims DTN-X features the industry's only commercially available 500Gbps "super-channel" solution and can support future terabit super-

channels without requiring new chassis. It adds that the deployment for NRT is designed to scale in the future to deliver up to 12Tbps of integrated OTN switching. It features Infinera's Instant Bandwidth technology which can deliver more capacity at the press of a button. Infinera says that DTN-X also features rapid service protection to ensure continuity even in the face of multiple fibre cuts.

NRT head of technology and engineering Craig Ellis says Infinera's solutions were deployed to enable a "railway fit for the future".

"Infinera provides a solution that is highly reliable through its use of photonic integrated circuits, and the software-driven management system enables remote diagnostics and turn up of bandwidth, ideal for this type of network,



keeping our people safe yet allowing our networks to grow."

Telefónica, which runs the O2 mobile network in the UK, has been working with Network Rail since 2012. It has been refreshing the firm's LAN and WAN estate and preparing it to enable the convergence of ICT services (see News, Jan 2012). ■

Infinera's DTN-X system will deliver speeds of up to 500Gbps, but can be scaled to deliver 12Tbps.

Molecules could solve flash memory problem

New molecules could be the key to solving a potential problem with flash memory storage, according to a team of university researchers. While flash memory is commonly used for storing data in devices such as smartphones, memory sticks, cameras, etc, researchers say its current design is physically limited in terms of its minimum size.

At present, flash uses data cells that utilise metal-oxide-semiconductor (MOS) components. These are said to be difficult to manufacture at a scale below 10 nanometres, effectively setting a limit on the amount of storage it is physically possible to fit onto conventional silicon chips.

Scientists have previously suggested that using individual molecules to replace conventional data storage components in flash memory could help create small devices capable of holding large amounts of data.

However, attempts to design these molecules have faced significant practical barriers such as low thermal stability and high resistance, which has limited their use in pre-existing technologies.

A team from the University of Glasgow's Schools of Chemistry and Engineering and Rovira i Virgili University in Spain claims they have developed a possible solution to these problems using metal-oxide clusters known as polyoxometalates (POMs).

Research team leader Professor Lee



Glasgow University's Prof. Lee Cronin says his team have created a new memory called 'write-once-erase'.

Cronin from the University of Glasgow's chemistry department says: "Conventional flash memory uses transistors whose design allows them to 'remember' whether they have been turned on or off after they've been removed from a power source. Those transistors' positions correspond to binary, allowing data to be stored.

"We've been able to design, synthesise and characterise POM molecules that can trap, charge and act as flash RAM, as well as dope the inner core of the clusters with selenium to create a new type of memory we call 'write-once-erase'."

Cronin says these POM clusters provide a balance of structural stability and electronic functionality. Furthermore, their electronic functionality is tunable, making them suitable as storage nodes for flash memory.

One major benefit is that it's possible to fabricate the new POMs with devices already widely used in industry. "They can be adopted as new forms of flash memory without requiring production lines to be expensively overhauled," says Cronin. ■

Schneider Electric caps 2014 with two big customer wins

Energy management specialist Schneider Electric has announced two prestigious new contracts, one with consultancy firm Capgemini and the other with BSKyB.

Capgemini will use Schneider to upgrade its Swindon-based Merlin data centre, which is claimed to be one of the most energy-efficient in the world. It will utilise the vendor's prefabricated modular infrastructure to meet its needs for high density, flexible racking and energy efficiency.

Paul Feeney, head of global data centre infrastructure and transition at Capgemini, says prefab is a more sustainable solution going forward. "Capgemini wants to maintain its energy-efficiency goals, ensure scalability, and make provisions for requirements such as hybrid cloud and supercomputing. Schneider Electric's

prefab data centre solution can accommodate all of those applications."

Schneider says a prefab design offers the flexibility to meet a customer's specific system design requirements, such as Capgemini's use of flywheel technology for power backup.

The vendor has recently announced 14 prefabricated data centre modules together with 12 new reference designs. It says the latter include complete details for data centres scalable in 250kW to 2MW increments, delivering IT, power, and cooling integrated with other infrastructure.

For the BSKyB contract, Schneider will work with data centre specialist Keysource to install its *StruxureWare* DCIM platform to replace existing software across the broadcaster's data centre estate. BSKyB



THE WORLD ACCORDING TO...

Guillermo Lafuente, security consultant, MWR InfoSecurity

How to handle the security problem with Big Data

When producing information for Big Data, organisations have to ensure they have the right balance between utility of the data and privacy. This follows a process of anonymising it, encrypting it, putting proper access control in place with security monitoring, risk assessment, and making sure storage complies with local regulations.

Before the data is stored, it should be adequately anonymised, which involves removing any unique user identifiers. This in itself can be a security challenge, as removing unique identifiers might not be enough to guarantee that the data will remain anonymous. Therefore, it should also be encrypted.

Both the raw data and the outcome from analytics should be adequately protected with encryption. In the case of cloud services, data cannot be sent encrypted by the users if the cloud needs to perform operations over the data.

A solution for this is to use 'Fully Homomorphic Encryption (FHE). This allows data stored in the cloud to perform operations over the encrypted data so that new encrypted data will be created.

In addition, protect communications: data in transit should be adequately secured with encryption to ensure its confidentiality and integrity.

Access control has traditionally

been provided by operating systems or applications restricting access, which typically exposes all the information if the system or application is hacked.

A better approach is to protect the data using encryption that only allows decryption if the entity trying to access the information is authorised by a control policy. In addition, by using real-time security monitoring, access to the data is monitored and threat intelligence is applied in order to prevent unauthorised access.

Organisations should run a risk assessment over collected data and establish adequate policies that protect the data and their clients' right to privacy. They should also carefully account for regional laws around handling customer data, such as the EU Data Directive. Anyone using third-party cloud providers to store or process data needs to ensure that providers comply with regulations.

It is crucial to bear in mind that security is a process, not a product. Therefore, organisations using Big Data will need to introduce adequate procedures and apply traditional information lifecycle management that helps them to balance managing and protecting data, as well as their customers' privacy.

Government to pump millions into Big Data research – Network Knowledge, p15.

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says it operates more than 1,000 IT equipment racks in six resilient and low PUE facilities in the UK. These centres host the infrastructure that supports *SkyGo*, *NowTV* as well as their customer management platforms and other services.

Riccardo Degli Effetti, head of data centre operations at BSKyB, says: "With

our ongoing commitment to reduce our carbon footprint in mind, we felt the need for a tool that would allow us to holistically monitor the performance of our data centre estate and help us in identifying opportunities to optimise our consumption whilst maximising service uptime." ■

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Telent buys Telindus UK

Telent has acquired Telindus for an undisclosed sum. Telent hopes the deal will enhance its ability to deliver end-to-end networking solutions, and means it can also offer Cisco and Juniper solutions to its customers. "This deal will bring a transformational strengthening of our ICT capabilities," says Telent CEO Mark Plato. Camberley-based Telindus' revenues are reported to be more than £45m a year, while Telent says its annual income is in excess of £300m. Between them, the two companies employ a total of around 1,500 people. This latest acquisition for Telent follows on from its purchase of voice processing and communication specialist Voice Perfect earlier this year. It has also bought a 25 per cent stake in IT security firm CNS. ■

Lync to become Skype for Business

Microsoft is to re-brand its *Lync* unified communications platform as *Skype for Business* within the next six months. The software giant says the core functionality of *Lync* will not change although the interface will become more like Skype. It will also support video calling and the Skype user directory. According to Microsoft, the decision to re-brand simplifies the presentation of its product lines for what it describes as the "new, more flexible world of work". It adds that this reflects what it sees as the trend among younger people to blur the lines between work and home life. *Lync Server* customers will receive *Skype for Business Server* as a software upgrade next year. ■

KPMG expands cyber security

Management consultancy firm KPMG has completed the acquisition of privately owned German cyber security specialist P3. The investment in the Frankfurt business brings KPMG's German Cyber Security practice up to four partners and 100 staff. P3 provides services such as risk management, security assessments and mobile and fixed network protection to clients across the financial services industry. Malcolm Marshall, global leader of KPMG's cyber security practice, says: "Cyber security is one of the greatest risks facing business today." This latest purchase comes after KPMG's takeover of the UK, US and Indian assets of Qubera Solutions, an identity and access management consultancy firm. ■

Church uses Daisy for telephony

The Anglican Church in Wales (CIW) says it has cut costs by 66 per cent following the entire upgrade of its communications system to a new IP-based system.

Enterprise ICT specialist Daisy recommended consolidating the church's various systems and moving its telephony to the cloud. As a result, a 10-year-old Nortel system was replaced with Daisy's fully hosted and managed *Cloud Select Voice HD* telephony service and Cisco *504G* handsets.

Daisy claims the new IPT system has "dramatically improved" the church's call handling efficiency, which had previously resulted in an estimated 30 per cent of calls being missed. It has also given the CIW's



Daisy Group CTO Nathan Marke says his firm recommended a system that would enable the church to make internal calls for no extra charge.

800 staff new telephony features such as call forwarding and monitoring.

More significantly, the system has eliminated calling costs between the church's 1,100 sites. The organisation says these have been cut by around two thirds,

a reduction of more than £7,000 a year, while administration and maintenance costs have also been halved.

Daisy Group CTO Nathan Marke says: "The demographic of the church's congregation varies dramatically and phone communication is one of the most easily accessible ways to get in touch with the organisation, making its phone bills a significant expenditure.

"We identified a system that would enable the church to make internal calls for no extra charge, but wouldn't involve a huge initial outlay for new hardware, and would also give staff the use of functions like call transferring." ■

MoD boards Ark to find a new home for its data

The Ministry of Defence hopes that a major IT consolidation and centralisation project will save the taxpayer significant amounts of money, as well as cut carbon emissions by 14,000 tonnes over the next 10 years.

The MoD has chosen Ark Data Centres to implement the radical overhaul of its infrastructure. The department has closed its existing site in Bath as part of its ongoing cost-cutting programme, and the property has already been sold as prime real estate.

"We surveyed the existing MoD data centre and designed an Ark environment that is far smaller, more flexible and accommodates all of the department's needs, future-proofed with room to grow," says Ark COO Steve Webb. "This includes a link to the MoD's Information Systems and Services (ISS) headquarters building at Corsham – which happens to be next door to our site – so that ISS can conveniently work with the new data centre." ■



The MoD's Information Systems and Services HQ in Corsham, Wiltshire (pictured top left) is next door to Ark's Spring Park data centre (bottom right).

Webb says the location of Ark's Spring Park data centre so close to the MoD's existing location at Corsham in Wiltshire was a significant factor. He adds that the partnership is a "great example" of how the MoD can benefit from secure sharing

in a very high-efficiency environment. The company is delivering its services in line with the government's data classification parameters and according to the Cabinet Office strategy of increasing sharing across the public sector.

According to Ark, the MoD's total cost of ownership of its new data centre in Corsham will be significantly lower compared to the old site in Bath.

The firm plans to have the facility prepared within just two months of the formal contract award, and says this will save the MoD from having to build a new facility that would have cost millions of pounds and taken at least a year to complete.

Given its experience with other MoD clients and the existing communications links already on site, Ark reckons its "proven" G-Cloud formula will mean a fixed PUE that will save 14,000 tonnes of carbon over 10 years. ■

ForeScout helps to purify water firm's IT network

Sutton and East Surrey Water (SESW) is using ForeScout Technologies' *CounterACT* system to monitor and protect its network.

SESW supplies on average 160 million litres of water per day to around 670,000 residents in East Surrey and parts of West Sussex, West Kent and South London.

Michael Cock, the company's group IT manager, says: "Prior to ForeScout we used a number of disparate tools for asset discovery and audit, and a significant amount of manual work was required to collate all of the data, which introduces risk."

He says *CounterACT* eliminated this

problem, and was also chosen as it delivered broader functionality than the benchmark requirement while staying within the company's budget.

ForeScout claims its platform gives the firm comprehensive real-time visibility of its internal network and a clear dashboard that shows compliance status. It is also said to enhance internal threat identification and is capable of remedial action.

More significantly, ForeScout says *CounterACT* and other IT systems are able to exchange information thanks to the use of its *ControlFabric* architecture. It says

this has enabled SESW to adopt a "more holistic" security position. The company has been able to integrate *CounterACT* with its McAfee *ePolicy Orchestrator* centralised security management software and anti-virus solutions to ensure appropriate protection across endpoints.

ForeScout says it maximised internal security compliance by delivering greater operational oversight of authorised and unauthorised users, devices and software on SESW's network, while requiring minimal man-hours to maintain the solution. ■

Managing mobile staff – feature pp10-13.

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Nimble claims first with storage-on-demand pricing model

Nimble Storage is offering a pay-as-you-go data storage pricing model which it says will help customers improve efficiency and save money.

The flash data storage specialist says its aim is to attract businesses that do not want to be tied into extended contracts which can leave them with out-of-date equipment.

"Long-term contracts leave customers with obsolete technology and empty wallets," says Gavin Cohen, the company's senior director of strategy and market development. "We want customers to have the peace of mind in knowing that they are only paying for what they use and can grow and shrink capacity at any time as their business requirements change."

According to Cohen, storage-on-demand provides enterprises and service providers with a flexible, efficient and high-performance solution. "This enables them to build and leverage the benefits and cost-savings of the cloud," he says.

Nimble is offering customers four levels of service, from bronze to platinum, billed on a per gigabyte basis for actual usage.

The firm adds that organisations building private or public clouds leveraging OpenStack can now fully realise the value of its *Adaptive Flash* platform to predict, manage and deliver the storage required to



Nimble says its Adaptive Flash platform can be used with OpenStack to predict and deliver the storage required by business applications.

optimise business applications and workloads across their IT environments.

Nimble is using deep data analytics from InfoSight to ensure that customers always have enough performance and buffer to maintain service levels. It says this means it can anticipate and automatically ship additional performance or capacity to users, and at no additional cost. ■

Hosted telephony looks set to replace traditional PBX system

The overwhelming majority of comms resellers believe the UK's hosted telephony market will grow significantly over the next few years, according to a new report by Nimans.

In a recently conducted survey of more than 458 resellers across the country, the company found that 97 per cent predict significant growth in the hosted market over the coming years.

Some 38 per cent believe the traditional PBX system will eventually be replaced by hosted telephony. More than 80 per cent said flexibility was a big factor influencing demand, while just over two thirds said that the sub 20 user market was crucial to widespread adoption.

"Clearly the market is beginning to shift,

there's no doubt about that," says Mark Curtis-Wood, head of Nimans' Network Services. "We know from the huge amount of IP endpoints leaving our warehouse that the goalposts are beginning to move."

Just under 65 per cent of respondents rated hardware and handsets as important components too. Nimans, which claims to be the UK's largest distributor of telecoms and data equipment, recently launched its own hosted telephony service, offering a free three-year hosted seat licence (worth £360) with every handset purchased.

"Orders and general interest have been phenomenal and clearly demonstrates a large appetite for the service which has turned the hosted market on its head," says Curtis-Wood. ■

Doughnuts with extra SaaS

Zetes will supply Krispy Kreme UK with a fully managed service that includes SaaS, hardware with remote mobile device management, and all support services.

Krispy Kreme delivers speciality doughnuts to more than 50 retail and 600 wholesale locations throughout the UK. The company operates an accurate demand planning model, capturing real-time sales data to ensure the right products are delivered to the right locations each day. Daily demand for its products can vary considerably, which led Krispy Kreme to selecting the *ZetesAres* solution.

Brussels-based Zetes specialises in identification and mobility solutions. It says *ZetesAres* is a direct store delivery solution designed specifically for managing a perishable consumer goods supply chain. It is powered by the vendor's cloud-based *MCL Mobility* platform which enables centralised management of mobile applications, devices and users.

Nicola Fisher, systems manager at Krispy Kreme, says that opting for a fully managed service has given the company immediate access to an advanced supply chain technology infrastructure with minimal impact on existing IT resources and capital expenditure.



ZetesAres is said to give manufacturers a high level of control and visibility over delivery and sales processes using a single mobile device.

By equipping field-based workers with mobile devices that capture real-time delivery and collection information, Krispy Kreme can now accurately forecast demand and manage its on-shelf availability for more than 650 sites from a remote location.

"Our investment in *ZetesAres* will ensure stock management and replenishment is completed efficiently in real-time, allowing us to scale operations quickly as the number of our sales outlets continues to expand," says Fisher. ■

Advanced 365 to offer Telstra network solutions in the UK

IT consultancy firm Advanced 365 SME has struck a deal with Australian telco Telstra to provide its cloud infrastructure and network solutions in the UK.

Advanced 365 says the agreement will enable it to offer SMEs cloud environments at "affordable prices", and give them access to Telstra's data centre in London's Docklands for additional services such as colocation and unified communications.

Andy Brown, MD of Advanced 365's SME division, believes that many firms are losing customers because of ineffective infrastructure. "UK broadband connection speeds vary significantly and many businesses overlook the importance of having the right data centre infrastructure in place to maintain optimal operational performance."

He reckons Telstra's "state-of-the-art" data centre, cloud services, and low latency rates will drive further growth in the SME



Advanced 365 will be able to access Telstra's Docklands data centre to offer colocation and unified communications to its customers.

sector, claiming that the two companies can offer "significantly faster" network connection speeds than industry standards.

Tom Homer, head of EMEA and the Americas for Telstra Global, adds: "Telstra's cloud infrastructure will provide Advanced's customers with consistency on a global scale through a standardised approach to technology and service." ■



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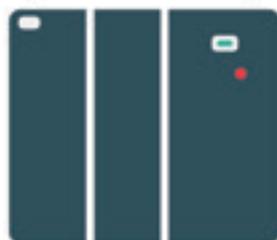
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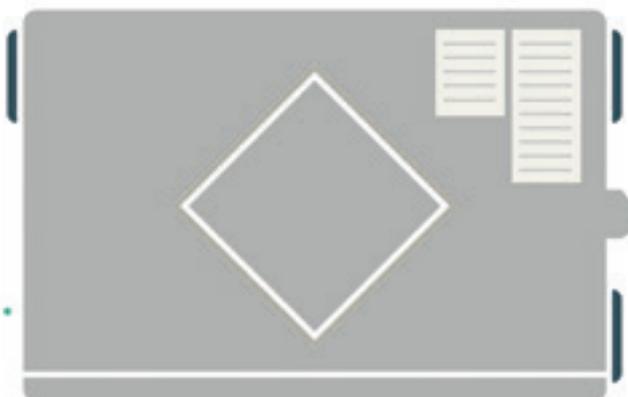
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Endsleigh feels the impact of Thunder

Endsleigh Insurance Services was set up in 1965 by the National Union of Students to negotiate preferential rates for students, graduates and young professionals. Today, it offers a range of insurance services, covering cars, homes and holidays.

The company handles millions of transactions a week, as IT core services manager Chris Murphy explains: "We process a large number of queries from price comparison sites alongside our own web-based quotation engine, and the volume of transactions we need to handle has been steadily increasing.

"We also have a large estate of virtualised servers and a number of test and development platforms, and decided on a strategy to invest in high-performance application delivery controllers to allow us to meet both our growth requirements and to unify our various workflows under a single, high-capacity ADC."

Endsleigh now uses the *Thunder Series* of ADCs from A10 Networks as part of a major infrastructure upgrade. The firm

had previously been using ADCs and load balancers from Array Networks, but decided to switch to A10 after its installed generation of its products had started to become obsolete and Array reduced its UK support capability.

Murphy shortlisted several potential vendors before settling on A10. "The combination of raw performance and price offered us a good fit and we particularly liked the licensing model which did not require us to buy additional software licensing for features which we considered as standard," he says.

Endsleigh purchased two *Thunder 3030s*. Each offers 30Gbps of Layer 4-7 throughput, as well as application delivery and global server load balancing functionality from a single appliance installed at each of the firm's two data centres to ensure high levels of reliability.

The two-stage implementation project began in April with the phasing out of the legacy Array devices. The *Thunder* ADCs were deployed in an active/active configuration so that they could not only handle daily transactions made direct from the Endsleigh website, but also via third-party price comparison sites. Each transaction needs to be securely managed and balanced between clusters of virtualised transaction processing servers split between Endsleigh's data centres.

Following a smooth and glitch-free upgrade to A10, Murphy says the performance and stability of the network has been "rock solid". He adds: "We have enough capacity to start to bring in the other VLANs, test and development environments under the control of the new ADC which offers us further security and management options."

A10 says a second deployment phase is now under way, and is being progressed during very short planned downtime. It expects completion this month.

Optimising WAN routes

Established in 1928, chartered accountancy firm Whiting and Partners has 16 partners and around 130 staff based in northeast England. Ten years ago, each office operated autonomously and had its own IT setup. But over time, the company migrated to a point-to-point VPN with each office connected to the head office in Bury St. Edmunds.

In 2005, the company introduced an MPLS network with a single DSL-based tail circuit connecting each of its sites. The head office had a symmetrical 2Mbps connection, while most of the remote offices had ADSL with up to 800kbps upload and up to 8Mbps download (subject to line length and contention).

However, Whiting and Partners found the MPLS network to be consistently unreliable, with sites sometimes going down for weeks at a time. This became increasingly difficult as email communication became more prevalent. Moreover, the network hampered the firm's plans to adopt a virtual desktop infrastructure and VoIP, both of which demanded greater reliability than MPLS had to offer.

"We wanted to allow staff to be able to work from whatever office they were at, instead of having to travel to the one where the data they needed to work on resided," says IT manager Chris Haydon. "We looked at multilink point-to-point protocol, which could give us more bandwidth and a bit more reliability because it ran across multiple links. But it lacked carrier diversity. If you have a carrier-level outage, you lose all your links."

Haydon then learned about WAN virtualisation and adaptive private networking (APN) technology from Talari Networks. APN is designed to route data using optimum and multiple paths from diverse carriers. According to Talari, it aggregates two or more network connections at each site and continuously monitors performance of every network path between locations.

The vendor's solution has enabled Whiting and Partners to implement VDI and VoIP in an environment where the existing MPLS network had lacked sufficient bandwidth and reliability.

Specifically, Whiting and Partners deployed a Talari *Mercury T730* appliance at its head office and *Mercury T730s* and *T200s* at the other six sites. The MPLS network has been kept in place and a separate DSL connection from another provider has been added at each site.

"This gives us the complete carrier diversity and, with Talari, the resiliency that we were looking for," says Haydon.



Source outsources

Source UK Services is an asset manager and an exchange traded product provider, with more than \$18 billion in assets under management. Its partners include JP Morgan, Bank of America Merrill Lynch, Goldman Sachs, Morgan Stanley, Nomura and Pimco.

With such heavyweight financial institutions to deal with, Source's IT infrastructure needs to be absolutely reliable all of the time – the consequences of even a split-second failure could greatly damage its business.

"If our system went down even for a small amount of time, it could have a huge impact on the pricing of our products, and adversely impact customer retention," says Michael John Lytle, chief development officer for Source.

In a highly competitive trading environment, Source's success is dependent on the resilience and flexibility of its systems and website, which increasingly houses more complex content, including numerous live market feeds alongside extensive product information.

To ensure that its business continues to grow without any disruption, the firm needed an IT infrastructure that could scale in line with its business to support increasing volumes of transactions.

Source chose Colt to undertake the work to upgrade its systems to make them more scalable and flexible. The two companies conducted a nine-month due diligence process and an extensive consultation process, at the end of which Colt applied its *Optimum* managed service across Source's IT, network and communications platforms.

Ben Savage, Colt's regional general manager for the UK and Ireland, says: "Our customers are increasingly looking for managed services rather than just technology. They want a partner who understands their business challenges and can offer guidance. Ultimately, the more added value we can provide, the more our customers can focus on their core business."

"Flexibility is an asset for any business, especially in the fast-moving world of finance. We provide a scalable solution for Source that allows business critical decisions to be made quickly, underpinned by 24/7 service that can cope with the unexpected."

Colt says it has a presence in 22 countries in Europe as well as the U.S. It operates a 46,000km fibre network in Europe which includes metropolitan area networks in 41 major cities with direct fibre connections into 19,800 buildings and 20 carrier neutral data centres.



R&M change office locations to better serve their market

R&M UK LTD have recently moved address from their central London location in Lombard Street. They have moved to a more updated and modern environment in 99 Bishopsgate, Central London and have opened a new office in the new technology park in Reading. Green Park is a premier business park which extends across 195 acres of stunning parkland. Green Park fits the green credentials of Reichle & De Massari, it's surroundings have been sensitively landscaped which encourages biodiversity.

Reichle & De Massari are in good company by locating themselves in Green Park. Their neighbours are networking/ICT giants Cisco, Huawei and Extreme. Also other global companies such as Symantec and HSBC are present within the park. UK Managing Director, Pete Gough states that "the new location in Bishopsgate is very central and in easy reach for our clients within the capital. The Green Park location in Reading has excellent connections and allows us to also build a demo facility which will allow our clients to come and see how the R&M solutions work and how they can bring benefit through flexibility, speed and reliability".

Both offices will bring many advantages as Reichle & De Massari continue their growth into the UK



Pete Gough
Managing Director
UK & I

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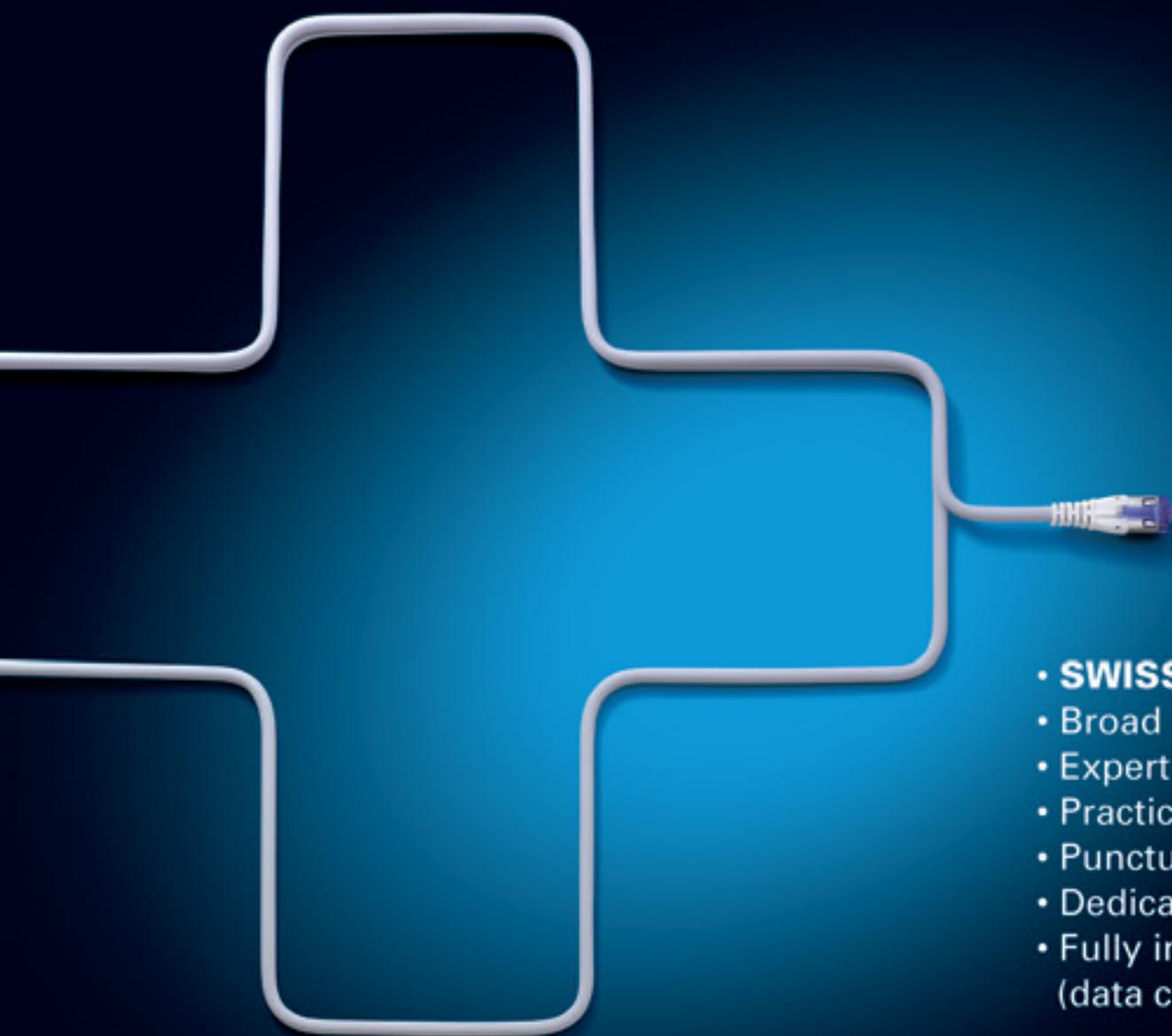
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According to TECHanalysis Research, around half of all companies now have some level of BYOD adoption happening in the workplace.

A rise in flexible working practices across the UK inevitably means a greater number of employees using mobile devices to access their corporate networks. RAHIEL NASIR looks at how tablets are giving headaches to network managers.

Greater flexible working could add £11.5bn annually to the economy, according to the findings of a study just released by Citrix and the Centre for Economics and Business Research. It reveals that 96 per cent of the UK’s “knowledge workers” (such as architects, software engineers, lawyers, doctors, accountants, academics, etc) who have the option of flexible working utilise the opportunity, whilst 83 per cent would do so if it was made available to them.

The researchers say if organisational culture throughout the UK changed to allow for this, there would be savings in commuter costs of £3.8bn, with a further reduction of 533 million hours spent travelling to and from work annually. “Businesses in the UK need to look very closely at the provisions they make for flexible working,” says Jacqueline de Rojas, VP of Northern Europe, Citrix. “The technology to make this happen is widely available, but we need to see a

mentality shift to where it becomes an everyday part of working life. The economic argument for flexible working is quite clear – the UK as a whole needs to contribute to a culture where anywhere, anytime working is the accepted norm.” Other industry experts also confirm that the number of mobile and remote workers in the country is on the rise. For example, cloud security specialist Netskope says its latest research confirms that nearly half of all cloud app activities now originate from a mobile device. And Cisco says it’s also seeing continued growth of mobile working practices, especially in a public sector being driven by austerity measures.

work cut out as it tries to monitor and manage them all.

The blurred lines of ‘shadow IT’

Citing an April 2014 survey from TECHanalysis Research, remote network management specialist Opengear says around half of all firms now have some level of ‘bring your own device’ (BYOD) adoption happening in the workplace. And it believes that figure is only likely to rise further as the benefits of enterprise mobility become more widely known.

That will lead to a whole new area beset by the blurred lines between personal and corporate usage, according to Sue Goltzyakova, Netskope’s senior marketing manager: “With employees seeking out their own preferred apps, which they can set up themselves, ‘shadow IT’ becomes a danger to the organisation and opens it up to the risk of data breaches.”

“The explosive growth of mobile is fuelling an increase in the use of cloud. But the two combined are putting pressure on security teams to be aware of what cloud apps employees are using, to understand what the risks are, and to put in place policies and controls to limit exposure.”

Earlier this year the UK Government extended flexible working to all employees in the UK, which is further recognition of the growing trend as mobility is shown to deliver productivity gains and increased employee satisfaction,” says David Goff, Cisco’s manager of product sales specialists. “As mobile networks get faster thanks to Wi-Fi and 4G, those using them will be able to work faster as well.”

As a result, and as Cisco’s Goff points out, it’s imperative for IT teams to know who is connected to their network (employee, guest, contractor), where they are connecting from (secure corporate networks or coffee shops), what device they are using (employee owned or corporate provided), and what applications and data they are accessing.

There’s yet further evidence from Vodafone. It recently conducted its own survey which asked business leaders for their thoughts on flexible working. Eighty per cent said that their staff are asking for more flexible working, and 60 per cent of employers currently give remote working capabilities to most of their personnel.

He also warns that opening your network to an increasing number of devices has other implications, such as application performance, how to ensure precious corporate bandwidth is being used for the right things, and how staff collaborate with each other if the office is no longer their primary place of work.

“A majority of employees in Britain now consider access to flexible working options to be almost as important as financial benefits like a good salary or pension,” says Angus Flett, Vodafone’s head of portfolio – connectivity. “Furthermore, these younger workers now see mobile technology as a fundamental part of their lives and they bring this expectation into the workplace.”

And there’s the problem. With increasing numbers of workers expecting to access corporate resources using wireless devices – both personal as well as official, and using external as well as internal networks – the IT team has its

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When used with its multi-platform routers (pictured), Peplink says its SpeedFusion VPN bonding technology offers a single gateway or AP for remote clients to connect to.

Berlin-based telecoms solutions provider TELES heaps yet more woes onto this list, as technical consultant Werner Schimek explains: "Company policies used to dictate which smartphone vendor or even model was allowed but we think those days are over. Different platforms offer different ways of user interactions, and these have to be understood and supported."

"A vast diversity of devices has become the daily nightmare of the IT department. IT staff are facing support calls during installation and usage of soft clients and smartphone apps on end user devices from multiple vendors."

But it's not all doom and gloom. Rajesh Ganesan, director of product management at ManageEngine, reckons the BYOD trend is having a positive effect on the IT department's ability to control and manage the corporate network due to three main reasons: "Firstly, BYOD increases employee efficiency and mobility. This in turn has a positive effect on organisational productivity. When IT and business are aligned, better communication can take place between IT and other departments. This will lead to better management of the corporate network."

"Secondly, BYOD makes the IT department think of network security in a whole new light. The IT department has to now proactively plan and formulate the right policies. It has to comprehensively assess risks, vulnerabilities and impact to ensure security of corporate information. This makes the IT department more streamlined and better equipped to manage the corporate network."

"Thirdly, BYOD can allow IT departments to save costs. With people bringing their own devices, there's bound to be substantial cost savings for the company."

These savings can be used to improve other IT processes and enable IT to play a more proactive role in managing the network."

Ganesan admits that while BYOD does make things a little hard for the IT department – such as dealing with the reality of giving access to a variety of devices while keeping the hackers away – a well-managed IT department will

overcome these challenges and turn them into opportunities for growth.

Netskope's Goltyakova also highlights some positive aspects: "In some ways, having remote and mobile workers can improve the life of a network manager. Having a remote workforce which relies predominantly on cloud apps can reduce the capacity and maintenance required."

But she adds that these workers will always look for the easiest, most effective way to work, and often this means choosing their own apps without even involving IT. "So it's a double-edged sword. Network managers don't have to worry as much about keeping on-premise solutions up and running, but remote users with unsanctioned cloud apps can lead to IT having little or no visibility of the solutions in use and of where data is. It's a perfect storm of security challenges."

Are you ready for 'WYOD'?

UK enterprises are unprepared to deal with the security risks posed by WYOD – wear your own device.

In a recently published survey of IT decision makers from 100 organisations with more than 1,000 employees, 77 per cent of respondents revealed that they do not currently consider wearable technology as part of their broader mobile security strategy. Just over half admitted that they had yet to consider the impact that wearable technology could have on data security within their organisation.

While 61 per cent of IT decision makers said that they already had employees currently using wearable devices within their organisation, 37 per cent told the survey that they did not see any need to embrace WYOD at all.

The research was carried out by enterprise mobile solutions provider Accellion. Its CMO Paula Skokowski says: "With the anticipated launch of various new wearable devices in 2015, the age of WYOD is upon us. Although UK enterprises are beginning to come to

terms with the need to securely enable the use of smartphones and tablets by the workforce, the next challenge is to ensure that wearables are given the same attention."

When asked what they think would be the most popular wearable devices in the workplace next year, 41 per cent said that they expected to see the *Apple Watch* in their organisation in 2015, compared to just 36 per cent opting for *Google Glass*.

Email (29 per cent) is expected to be the most popular application to be used by employees on wearable devices in the coming year, followed closely by social media apps (20 per cent), internet browsing and *MS Office* applications (10 per cent each). Only six per cent consider voice calls on wearable devices to be the most appealing use.



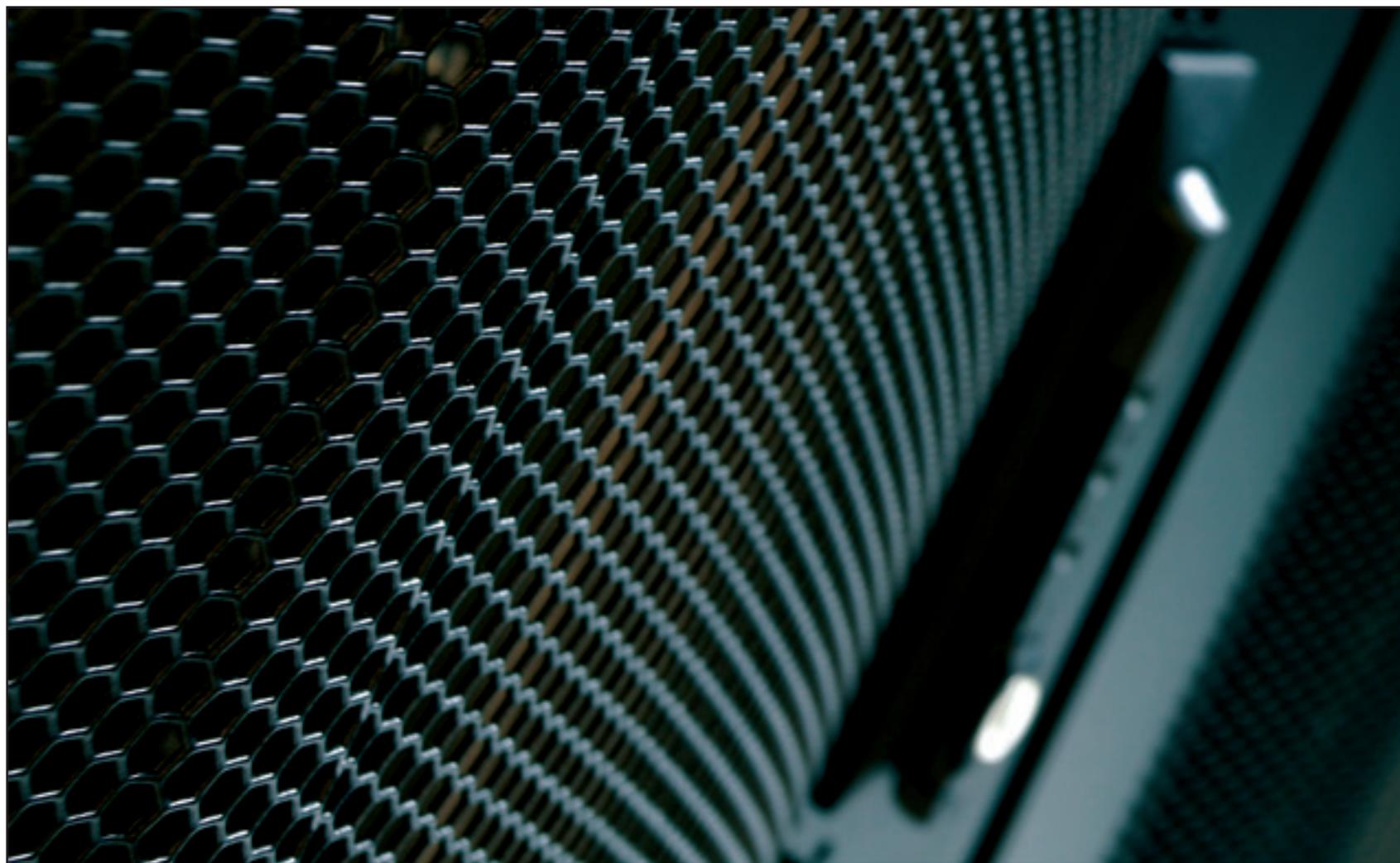
Smartwatches from Sony and Samsung are among the most popular wearable devices in the workplace, but the Apple Watch (pictured) is expected to make a big impact in 2015.

Don't bring a virus to work

Formulating the right policy is clearly key to managing BYOD and remote workers. And of course security plays a critical role here. Every organisation should have a strong and flexible policy which protects the privacy of users as well as sensitive corporate data. Ganesan says security in a BYOD environment has become especially crucial because the number of endpoints from which threats can enter has increased.

For instance, by using a vulnerable endpoint, a hacker can easily gain access to an employee's smartphone or tablet when he or she is travelling for work. Advanced persistent threats can work with stealth and can lurk in the office network for a long time before they can be identified.

He goes on to say that other BYOD security issues that network managers have to deal include: deciding which group of employees can use their own devices; what information they can have access to; which type of devices can be included; how to demarcate the employee's office files and personal files on the same device; how to deal with loss or theft of a device; and what policies to follow when an employee quits the job.



Ultimately, safeguarding the network from mobile workers should all be part of a company's best practice procedures.

"A few years ago, network managers had to provide security, connectivity and application speed in a work environment," says Ganesan. "But now they must provide all these in any location the employee chooses to work in. After all, for employees today, work is only an activity to get done – not a place to go to."

Derek Watkins, Opengear's VP of sales for EMEA and India, says BYOD often supplements the IT environment already in place rather than totally changing it. "This means that a remote site network initially built to only handle desktops and printers now needs to deal with an influx of smartphones, tablets and laptops."

But he continues by pointing out that this added demand can easily overload

existing support infrastructure, especially at remote sites with few on-premises resources. "In some cases, everything from access points and switches to controllers and routers may need to be redesigned and reconfigured with BYOD and enterprise mobility in mind."

Furthermore, not only does BYOD affect the infrastructure at branch offices, but it can also place added strain on in-house data centres as well. With employees more frequently demanding access to data and files from any device, Watkins believes companies must ensure that they have the cloud infrastructure in place to support all such requests.

Vodafone agrees here. Flett says remote workers need desktop-functionality from their remote devices, and this requires cloud-based business applications – all of which need high bandwidth to function.

Peplink, which provides load balancing and VPN bonding solutions, also supports this view. While it admits security is always important, the biggest issue it sees is maintaining reliable connectivity in remote locations/dead spots or when on the move.

"Normally, attempts are initially made with USB dongles and embedded cellular connectivity in tablets and smartphones, but a number of challenges arise from this," says Peplink's 'technology evangelist' Martin Langmaid. "Firstly, contract management for increasing numbers of SIMs and their associated data plans gets very complicated quickly – even more so when BYOD is in the mix where data contracts can be owned by the staff members themselves.

"Secondly, cellular coverage can be a challenge when only one provider is being used. We've heard of cases of staff taking



"For employees today, work is only an activity to get done and not a place to go to."

*Rajesh Ganesan,
Director of product management,
ManageEngine*

written notes in interviews with clients and then driving to motorway service stations or pubs with public Wi-Fi to then re-enter that data into the corporate ERPs."

Managing the apps

Are there any solutions to these myriad problems? According to Goff, the first step is to get a security policy management platform that automates and enforces secure access to network resources.

For example, he says Cisco's *Identity Services Engine (ISE)* delivers user and device visibility to support enterprise mobility. It shares contextual data with integrated partner solutions to accelerate their capabilities to identify, mitigate and remediate threats.

Cisco also offers its *Application Visibility and Control (AVC)* technology. Goff says that this is a suite of services in Cisco network devices that provides application-level classification, monitoring and traffic control. It's designed to improve business-critical application performance, support capacity management and planning, and reduce network operating costs.

Vodafone is the first provider globally to have embedded Cisco's AVC system into its network. Flett says it can automatically identify more than 1,500 different applications and report on their performance at a real-time and granular level that simply wasn't possible before.

He says AVC enables the network manager to drill right down into a single site from a global view to see how staff are actually using and engaging with the network. "They can build a granular view of the applications running and potentially clogging the network. The CIO can then prioritise the different applications running and pre-empt issues – if there are apps that are failing, for example, this can be picked up at site level."

Staying connected

To provide and maintain connectivity and security in remote areas, Peplink recommends the use of dedicated hardware with multiple embedded cellular modems using external antennas.

Langmaid adds that by keeping the connectivity method as a physical and corporate managed resource simplifies network management since all devices can be centrally managed. "[They] can

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provide the end-to-end security, monitoring and management required as the enterprise network extends its physical and geographical boundaries.

“Also, it draws a clear line of responsibility between the end user devices and the enterprise network, where network engineers and desktop/application support analysts have a clear division of responsibility for service delivery.”

This idea of central management is also crucial for ManageEngine. Ganesan says it is necessary for network managers to track all the assets assigned to staff, manage data access and passwords, and create user or department profiles from a central location. “The IT team should also be able to configure any device from this central location. This will eliminate redundancy and improve productivity.”

He adds that network managers should also be able to deploy and scan apps: “In case an employee downloads a blacklisted app through their home network, it must be deactivated as soon as they enter the office network. For example, it is possible to block apps with a built-in camera function. Furthermore, IT must be able to deploy apps for all chosen user profiles which employees can then download.”

Netskope’s Goltyakova concurs here and says it is critical to be able to see what is on the network: “The first step should be to discover every app in use within an organisation’s environment. Usually this number is far higher than expected – the latest Netskope *Cloud Report* found that there are now 579 cloud apps in use within an average organisation, many of which are totally unknown to IT.

“Secondly, activity should be monitored to look for patterns of behaviour and anomalies. What data are your employees uploading and sharing? Are sanctioned apps being chosen, or alternatives which have not been approved by the company and might not be secure?”

“Thirdly, an organisation should look to set policies which are flexible and don’t just mean blocking everything that ‘looks a bit dodgy’. A blanket ‘block’ policy will antagonise users and will probably be ineffective – users are very clever these days at finding workarounds and ways to do what they want!”



“A majority of employees in Britain now consider access to flexible working options to be almost as important as financial benefits like a good salary or pension.”

Angus Flett,
Head of portfolio – connectivity,
Vodafone

Opengear believes that a fundamental consideration of any network infrastructure management plan should recognise the possibility of a failure where the primary network is unavailable. Watkins says this has led to increased demand for solutions that utilise 3G/4G and even satellite connectivity as a means of providing centralised IT teams with ‘remote hands’ to fix issues that occur at branch level.

“The notion of a sending out an IT tech to a remote branch office – to reset or reconfigure an errant network switch or access point, for example – is an expensive and impractical solution. Any organisation relying on BYOD must have a strategy to ensure accessibility to the network as well as a fall back to meet outage scenarios which are more common than network vendors would like to admit.”

Langmaid claims the only truly

successful approach for reliable connectivity is to use multiple data connections from multiple ISPs and then load balance (or VPN bond) across those links. Bandwidth monitoring and management also then becomes a key element of any large scale deployment. “The IT department needs to know who its biggest data consumers are and why, and be able to identify any abuse of the systems.”

He goes on to explain that *SpeedFusion*, Peplink’s VPN bonding technology, bonds multiple cellular and fixed WAN connections to create what’s claimed to be a highly resilient and available secure VPN connection from a remote location back to the enterprise network.

When used with the vendor’s routers that can combine cellular, fixed line and satellite WAN links (from any provider), Langmaid says *SpeedFusion* offers a single gateway or

AP for remote clients to connect to. “We then have a cloud management app that gives the IT department full visibility of its mobile device estate, providing centralised monitoring, reporting and management.”

While predicting the future is always a risky business, one thing is for sure: bandwidth-consuming applications will keep growing. And that means network managers will need to continually look at how to balance the use of these applications to ensure the network is not overwhelmed.

Flett offers the following advice: “Network managers will succeed by getting to know their networks better. Greater visibility will lead to greater knowledge which in turn will result in better control – and better control will ultimately mean a better network. The promise of the truly application aware network will become a step closer.” ■



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off-the-shelf: racks & cabinets

Left on the shelf

If your IT equipment needs a new home, here are some of the latest racks and cabinets that could be worth viewing.

Power management company **Eaton** has added a new line-up of racks to add to the *RE* series it launched earlier this year.

Like the *RE* racks, the *REC* series come with castors, a grounding kit, step-less positioning rails, U markings, and quick release lockable sides. But other features, such as increased height, depth and carrying capacity, are said to make these latest ready-to-go enclosures suitable for small, medium and large data centres.

Eaton has developed the *REC* range with value-added resellers and system integrators in mind. It says the racks can be easily assembled into aisle containment configurations, with split swing style end-of-row doors and 600mm or 800mm wide ceiling segments designed for 1,200mm wide containment aisles.

They're available in 42U and 47U heights, and depths of 1,000mm and

1,200mm. A full range of rack accessories including airflow and cable management accessories support the cabinets.

Eaton adds the *REC* series provides the foundation for larger variations of its recently launched *Intelligent Power Pod* platform, which includes UPSs, rack PDUs, power management software and services.



Emerson Network Power says the two racks in its new *InstaRack* range offer a ready-to-assemble, flat pack design that minimises transport and storage requirements, resulting in reduced expenditure for the channel.

The new line-up includes the *InstaRack*

LAN which is designed specifically for networking and multi-level power distribution. Emerson reckons the unit offers "high performance and unparalleled quality", as well as unique features such as the frameless architecture.

The *InstaRack LAN* is available in four

standard size options, and the firm says it offers a "strong and stable" 19-inch structure with a 550kg load carrying capacity.

The *InstaRack Server* is the second product in the new line-up. It's designed specifically for data centres and comes in 12 different sizes with an 800kg loading rate. Perforated front and rear doors are included for improved ventilation.

Emerson says both racks can be assembled in just 30 minutes. They're supplied with just a small number of

parts and identical screw connections, as well as vertically separated side panels that are easily installed and locked without using tools.

It adds that the panels provide easy handling as well as fast, simple access to installed equipment.

Emerson claims the *InstaRacks'* frameless design eliminates the need for cable threading, while the 800mm wide top cover has entry points at the front, back and sides for flexible and simple cable management.



The *Select* series server cabinets from **Fusion** are said to be precision engineered for high density data centre and enterprise equipment room applications.

Available from Mills, it's claimed the cabinets have been designed to enable rapid installation and easy access for maintenance whilst lowering deployment, remediation and operational costs.

The *Fusion* cabinets come in a combination of 600mm or 800mm widths with a 1,000mm depth, and include models that are available in 27U and 42U heights.

Constructed from heavy duty SPCC cold rolled steel, the cabinets feature a static load capacity of 1,050kg, and fully adjustable front and rear profiles which have U height markings. An integrated high-capacity vertical cable management system featuring

hinged covers and slotted fingers is included on the 800mm wide models.

The quick-release front and rear doors are lockable and reversible, and are supplied in a choice of tinted safety glass with a ventilated frame or a mesh front door, both with a swing handle lock.

The split (wardrobe style) perforated steel rear doors are said to minimise the swing footprint, while two quick-release lift-out steel panels on each side assist with access. There are earth bonding cables on the front and rear doors.

Pre-fitted with castors and levelling feet, the *Fusion* cabinets are also supplied with a pack of 50 cage nut sets.



According to **Rittal**, its latest *TS IT* rack provides optimum stability and maximum space utilisation due to its welded frame construction. Featuring a new door design, it's claimed the rack has an even greater air flow with an 85 per cent open area to provide cool air to the housed servers.

Rittal says that an "intelligent" design also ensures maximum air flow with no loss of strength. The vendor reckons the unit's 1,200mm depth allows for any additional space that may be required for the next-generation



of servers, while the verticals provide a static load rating of 1,500kg to support any increase in server weight.

It adds that the *TS IT's* adaptable verticals allow "infinite" mounting positions, while the tool less 19-inch mounts limit the time engineers are on site. Dual side panels are split making it easier to move 1,200 and 1,000mm deep panels, and side panels can be easily locked into place providing complete security. A standard four point locking system provides further security.

Schroff has created a modular system to enable cold-aisle containment to be configured fully and simply.

By using modular off-the-shelf components, the firm says customers can easily and more cost-effectively adapt the design of its *Varistar* server and network cabinets according to their specific requirements. It adds that other advantages include minimal planning outlay, short supply times of 10 working days, and straightforward options for future expansion.

The off-the-shelf components available include containment doors, aisle covers, baffles and halogen-free gasketing, and they can all be combined to create an individual containment system.

Containment doors are available in four standard versions, while aisle covers in tough safety glass ensure an airtight and robust aisle closure overhead, says

Schroff. It adds that a "wide and robust" steel plate frame offers space for an extinguisher injector or smoke sniffer systems.

Baffle kits, available in a wide range of sizes for Schroff server and network cabinets, ensure that air is guided correctly to front-to-back-cooled IT components. To allow integration of side-to-side-cooled IT equipment into the containment system, Schroff partner Pentair has created a standard air guide kit that can also be retrofitted to a cabinet already installed in a row.

The standard baffles are available for 19-inch planes recessed to different depths and with additional cable management options.

Schroff reckons this ensures good use of space while providing the required cabling space and cable routing options. The firm adds that the universal profiles of its modular system and off-the-shelf components also allow integration of OEM cabinets.





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'Revolutionary' course aims to untangle cable training

CNet Training is working with the UK's major network infrastructure providers to introduce new standards and certifications for the industry. The company says it is investing £1m to establish the Certified Network Cable Installer (CNIC) programme which has been backed by the Department for Business and Innovation and also has industry support from NG Bailey, Computacenter, LMG, amongst others.

"The entire industry has been crying out for educational standards and professional certification for years," says CNet Training MD Andrew Stevens. "It is now more important than ever simply because network infrastructure really is the backbone of modern life."

The CNIC programme is a 10-day course which aims to provide cable installers with everything they need to prepare and install, test and certify and fibre systems. CNet says it is especially appropriate for people who want to demonstrate the "highest levels of knowledge, skills and expertise in network infrastructure".

The firm adds it worked closely with the industry to develop the programme to ensure it reflects real-life scenarios in addition to the correct standards and working practices needed by today's network cabling professionals.

The programme itself combines theoretical study and practical exercises. It incorporates Fluke's Versiv CCTT certification and the Excel System Installation programme, eliminating the need for individuals to attend the two-day Excel course and just take the Excel online training element.

CNIC will be delivered at CNet's dedicated training facilities at Barking and Dagenham College, but will also be rolled out to a number of other additional strategic locations across the UK.



CNet Training MD Andrew Stevens says the industry has been "crying out" for educational standards and professional certification for years.

Big Data gets big boost from Government

Government investment of £113m in new high performance computing (HPC) capability is expected to give UK business a two-year lead over international competitors.

According to science minister Greg Clark: "The investment will create an exciting innovation environment that will enable UK industry to exploit value from advanced computing and Big Data to create new and improved products, services and manufacturing processes."

The multi-million pound boost was announced in the Autumn Statement at the start of December, and will substantially expand the data-centric cognitive computing research capabilities of STFC's Hartree Centre at Sci-Tech Daresbury.

Hartree was setup to drive growth and innovation between science and industry. Established in association with IBM and originally underpinned by more than £37.5m of initial government funding, it is home to the UK's most powerful

supercomputer, enabling new HPC collaborations that promote UK economic growth.

STFC chief executive Professor John Womersley says harnessing data intensive science to the needs of industry could transform every business sector as well as every scientific discipline.

"Currently, even data experts find it difficult to extract insights from many existing large data sets. The Government's five-year investment in the Hartree Centre will deliver a step-change in capability, and plans to bring in significant knowledge and expertise from IBM which will help ensure our science and industry remains at the forefront of research and development," he says.

NEW COURSES

SANS Brussels 2015 – The SANS Institute
The six-day SANS Brussels 2015 event

will feature a programme of security courses, talks and seminars, as well as offer networking opportunities with SANS instructors and industry leaders.

The courses on offer will range from penetration testing and forensics, to incident handling and security systems. Emerging areas of cyber threats will also be covered, such as defensible security architecture, network security monitoring, continuous diagnostics and mitigation, and continuous security monitoring.

SANS Brussels 2015 will be held at the Radisson Blu Royal Hotel in Brussels from 26-31 January 2015. For more information, registration and early bird discounts, see www.sans.org/event/belgium-2015.

Industrial Ethernet Infrastructure Design seminar – Belden

This three-day training seminar is aimed

at those who design or maintain mission-critical industrial Ethernet networks. It will teach delegates how to reduce costs and installation time, while implementing highly reliable and resilient networks.

The seminar will feature more than 20 presentations and hands-on labs. Belden says many of them will focus on the needs of manufacturing networks used for SCADA, providing both "greater insight and essential practical advice".

The sessions will be led by the firm's experts from around the world, representing Hirschmann, Lumberg Automation, Tofino Security, amongst others.

This is Belden's second such seminar, but it has been decided to restrict the event to 160 attendees to ensure a more informal and friendly atmosphere. It's scheduled for 8-11 June 2015, in Istanbul, Turkey. www.belden.com/designseminar/index.cfm

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