

# networking

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# UK's top firms are not doing enough to tackle cyber threats

by Rahiel Nasir

The cyber crime threat facing UK companies is increasing, according to Science Minister David Willetts. His warning comes as a new survey from the Department for Business, Innovation and Skills (BIS) reveals that the country's top firms are not considering cyber risks in their decision making.

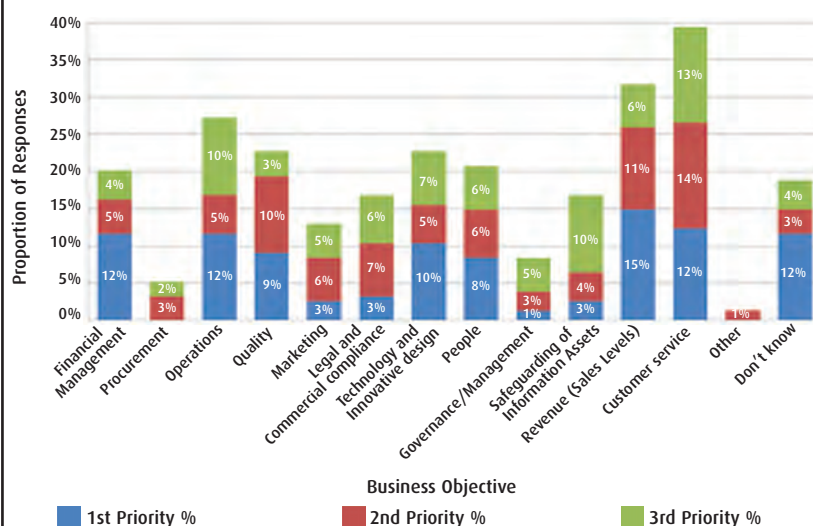
In August, the BIS sent its cyber governance health check to the FTSE 350 companies via the UK's six largest audit firms. The findings were published in the *UK Cyber Standards* report last month. It says that 62 per cent think their board members are taking the cyber risk very seriously, while 60 per cent understand what their key information and data assets are. But it also found that only 14 per cent are regularly considering cyber threats, with a significant number not receiving any

intelligence about cyber criminals.

Malcolm Marshall, head of information protection and business resilience for auditing firm KPMG, says: "We found a wide range of board level views. Some senior executives see cyber security as boring, some see it as sexy, others as over-hyped, and still more as a necessary evil. The one consistency is that they are struggling to find the right balance between managing risk and making investments in a world where the threats constantly change."

The BIS found that organisations predominantly cited commercial and business reasons for their lack of adoption of cyber security standards and the investment in external certification. "This suggests a perceived lack of clarity surrounding the business case for cyber

**One of the questions the Department of Business, Innovation and Skills asked organisations was about the priorities they place on their business aims. The term 'cyber security' was deliberately not used; instead it was referred to as 'safeguarding of information assets'.**



SOURCE: UK CYBER STANDARDS RESEARCH REPORT, NOVEMBER 2013, BIS

security standards. No standard reviewed as part of this research incorporated a business case element," says the report. (continued on p2)

## CIOs should not fear 'shadow spending' by other departments

IT departments are significantly under-estimating the budgets allocated to technology in other parts of the organisation, as more business leaders bypass the CIO and IT staff to execute their own projects. That's according to member-based advisory firm CEB which surveyed 165 organisations who together account for over £29bn in IT spending.

CIOs reckon that the IT spend from other departments represents another 20 per cent on top of the official IT budget. However, CEB says the real figure is closer to 40 per cent. It found marketing, HR, operations and finance departments are most likely to dedicate their own budgets to technology.

For example, six to nine per cent of the overall HR budget is now dedicated to IT, as businesses exploit the growing number of cloud-based HR systems and look to

talent analytics to better understand both existing staff and new recruits.

CEB MD Andrew Horne says that while the idea of 'shadow spending' has previously been seen as a threat, it is actually often a sign of healthy innovation. He believes that it presents a valuable opportunity for IT to work more closely with business partners to develop new capabilities.

"Failing to recognise the extent to which tech-driven projects are happening outside of the IT department can be a real worry, yet trying to maintain total control is equally a step in the wrong direction," warns Horne. "By getting this balance right, CIOs can help the business to be more flexible, identify potential cost savings, and ultimately implement change and innovation more easily." ■

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# Government lip service to networking needs

In its Autumn Statement earlier this month, the government reiterated its view that digital communications is an essential part of the UK's core infrastructure and an significant enabler for growth. But it is increasingly obvious that its actions are unlikely to improve Britain's competitive position, especially for business networking.

Chancellor George Osborne has found £10m in new money for a "competitive fund to test innovative solutions that might deliver superfast broadband services to the most difficult to reach areas of the UK".

This will supplement the £250m promised earlier to extend the existing £1.4bn BDUK rollout to "non-commercial areas", the £150m *SuperConnected Cities* connection voucher scheme, and the "up to" £150m mobile broadband improvement programme. But the £250m will only be available from 2015.

Speaking at a Westminster eForum conference which took place the day after the Autumn Statement was announced, Matt Yardley, a partner with market researcher Analysys Mason, said UK superfast coverage would slightly exceed that of Japan by 2018. However, in answer to a question from the floor, he admitted that Japan's relative position was based on FTTH, while the UK's was based on 30Mbps FTTP. "It's pretty clear that if we took a definition of 100Mbps, then a gap would still exist," said Yardley.

Simon Towler, deputy director of the Department of Culture Media and Sport which is in charge of the government's telecoms policy, said the needs of business are high in DCMS' policy-making. "It's one of the reasons we have the connection voucher scheme as part of our thinking on

*SuperConnected Cities*. It's one of the strands I want us to think about," Towler told *Networking+*.

He said an SME and a home user had "different needs", as did niche SMEs such as SoHos and videographers who work from home: "The needs of a hairdressing salon and those of a small creative shop in the film industry are quite different. Leased line connectivity for some of them may be best. For the business user, resilience and quality of service are a great deal more important than to a domestic consumer."

Asked who spoke for business at DCMS policy-forming meetings, Towler said it was the Broadband Stakeholder Group (BSG). He added that the Confederation of British Industries and Forum for Small Businesses have also contributed. However, business networking needs were absent from the most

recent study commissioned by the BSG from consultants Communication Chambers and published in November. This "new model" found, after some controversial assumptions and exclusions, that in 10 years' time, the median UK home will need broadband speeds of only 19Mbps.

Richard Jones, a partner with Hong Kong telecoms operator Ventura Team, also spoke at the Westminster eForum. He said Ventura's customers have access to 2Gbps symmetric broadband, and upload twice the volume they download.

Hong Kong also has widespread FTTH, but the BSG report omitted the country since its traffic is so high – 94GB for June 2013. BSG said that the Hong Kong regulator does not break out traffic for residential lines, so this figure may be inflated by business use and as such is not a "useful comparator". ■

## Firms not tackling cyber threats

(continued from p1)

It adds that nearly half of organisations believe certifications are not important, or do not know whether they are desirable or essential for cyber security related roles.

The government is working with businesses to encourage them to make cyber security a board level responsibility. The aim is to develop an official "cyber standard" which will help stimulate enterprise adoption of good security practices. Backed by industry, the kitemark-style standard will be launched early next year as part of the £860m cross-government

*National Cyber Security Programme*. "The cyber standard will promote excellence in tackling cyber risks, help businesses better understand how to protect themselves, and ultimately increase the nation's collective cyber security," says Willetts.

Recent information shows that the UK is facing a very real threat of cyber crime. According to PwC's 2013 *Information Security Breaches* survey, 93 per cent of large organisations suffered a breach in 2012, and only 20 per cent had detected that outsiders had successfully penetrated their network in the past 12 months. ■

## The doctor will see you now

Lancashire Teaching Hospital (LTH) is trialling a Video as a Service (VaaS) system from Bolton-based IT specialist Imerja. With telehealth technology, medical staff and patients can communicate with each other via HD video links, regardless of their location.

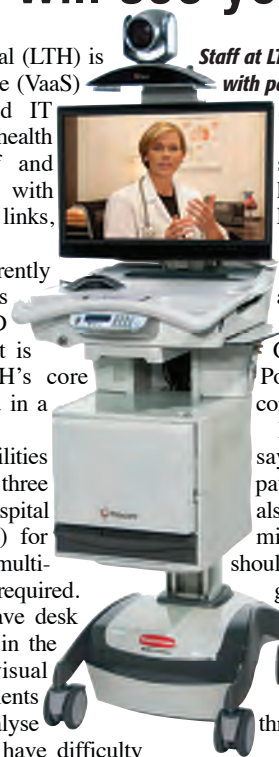
The VaaS system is currently being used by the hospital's renal department. Imerja MD Ian Jackson explains that it is directly connected to LTH's core infrastructure that is housed in a data centre in Bolton.

"Video conferencing facilities have been installed across three locations in two of the hospital sites (Preston and Chorley) for doctors and nurses to attend multi-disciplinary meetings when required.

"Two of the locations have desk units that allow the nurses in the renal units to provide visual support and assistance to patients who have been trained to dialyse at home if and when they have difficulty with their procedures or equipment. The home users are connected via business broadband services providing secure access to the core network and infrastructure."

Jackson says that secure gateways are available to provide connectivity from both the NHS' N3 network and the internet when links to the local network are not available. He adds that connectivity from the hospital

**Staff at LTH's renal unit can communicate with patients via the VaaS-enabled telehealth cart.**



sites to the core network is via high-speed LAN-based circuits. LTH's desk-based video-conferencing units are typically hard-wired to the LAN, although Imerja is investigating the possibility of wireless CPE to enhance the service. Portable devices can use Wi-Fi connections where available.

LTH's IT manager Scott Rayner says the video solution gives patients more independence. It also provides them with peace of mind that support is on hand should they need it. "It certainly holds great potential and, depending on the outcome of the proof of concept, we would look to roll it out further both within the hospital and throughout the country."

The current pilot is ongoing and Imerja is now looking to get a larger trial under way. "The project does need more financial support and resource in order to get some real numbers and testing done," says Jackson. "But as with other deployments of VaaS in various areas of healthcare, significant ROI can be quickly realised, both in terms of cost savings and more importantly improved patient care." ■

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## Colt wins as BT takes on Sky

Sky has selected Colt Technology Services to deliver global call termination services following an 18-month build-up process.

The initial three-year contract win for Colt comes at the expense of BT which recently went into competition with the satellite broadcaster for the rights to screen football and other video entertainment.

Voice traffic on Sky's network runs to millions of minutes per month, according to Peter Hutchings, VP of Colt's voice trading division. He explains that his firm will terminate all incoming calls to Sky via a secure IP network with five Sonus IP switches and 37 TDM exchanges across the broadcaster's key European markets. Colt will collect calls from around the continent, concentrate the traffic, convert them to IP, and transfer them via a 40Gbps IP link to

Sky call centres and other staff. Replies will go out in the opposite direction.

Joe Moore, Sky's head of carrier relations, says the firms had been able to establish a robust network interconnect that improved efficiency and saved money without compromising quality.

The deal neatly places Colt to take over Sky's terrestrial content delivery network which is based on more than 2,350 unbundled exchanges that serve 4.8m subscribers via lines leased from BT.

Hutchings said it would be "wonderful" if Colt were also to deliver IPTV to Sky's customers, but emphasised that no such discussions are taking place. However, he says that Colt is always trying to find new ways to leverage its bandwidth: "We aim to be a firm's first choice for voice and data." ■

# Window is wide open for Microsoft business

With just a few months to go before Microsoft ends support for several of its products, Tech Data UK is calling on resellers to redouble their efforts to persuade customers to upgrade their operating systems and productivity suites.

In April, six of the most popular Microsoft products used by organisations will no longer be supported by any updates (*see News, Jul/Aug issue*). They include, amongst others, *Windows XP SP3* and *Office 2003*. Tech Data – which claims to be the world's largest wholesale distributor of technology products, services and solutions – says that customers still using these versions will need to start thinking about their options.

It's thought that as many as one third of enterprise PCs could still be running *Windows XP*, so the potential for upgrade business could be "very big indeed", according to Gemma Horsell, Tech Data UK's Microsoft business manager.

She adds that affected organisations could also take the opportunity to consider



**Gemma Horsell, Tech Data UK's Microsoft business manager, says now is the time for organisations to consider what type of client devices they will want to use over the next few years.**

what type of client devices they will want to use over the next few years. "Most have become much more mobile since they installed *XP* and *Office 2003*, and many will now also have tablet devices in use as well as laptops. Depending on their needs, they may want to consider moving to a mix of *Windows 7* and *Windows 8*, and making use of *Office 365* as well as *Office 2013*."

Horsell notes that the software choices organisations make could also affect which type of PC systems they buy: "When users step up to more current version of *Windows* and *Office*, it will also be the ideal time to upgrade their hardware."

## BYOD use at Transport for London rises 500 per cent in three years

TfL'S BYOD POLICY	
TYPE OF DEVICE	NUMBER OF STAFF USERS
Android	70
Apple Mac	3
Asus	1
BlackBerry	22
HTC	19
iPad	178
iPhone	320
Motorola	2
Nokia	2
Samsung	87
Surface	7
Surface RT	1
WindowsPhone	15
Unknown	6

SOURCE: TRANSPORT FOR LONDON

Transport for London (TfL) has witnessed a major rise in the use of mobiles and tablets under its BYOD (Bring Your Own Device) policy over the last three years.

Official figures obtained by network automation provider Infoblox under the Freedom of Information Act show that activated devices as part of TfL's BYOD scheme have risen from 106 in 2010 to 583 in 2013. That's an increase of more than 500 per cent.

Chris Marrison, Infoblox's EMEA technical director, says that while personal mobiles and tablets are becoming ubiquitous in the workplace, IT directors will need to ensure that these devices can be used safely and securely on the network.

"Forward thinking organisations are already putting the necessary measures in place to enable improved productivity through BYOD initiatives, whilst safeguarding the organisation's network from unauthorised access attempts which put data at risk," he says.



## THE WORLD ACCORDING TO...

Max Meiklejohn, Product solutions, Freedom Communications

### How you see UC may not be the way employees see it

The communication market's shift to UC has been well documented with much said about the business benefits it brings, best practices for deployments, and the most common pitfalls to avoid. However, while all are vital considerations for adopting a UC strategy, they don't take into account one of the most crucial elements of a successful rollout: the fact that employees will be using it.

UC involves a cultural change in the way staff communicate and collaborate. You will be asking them to change the way they work, as well as use a range of new features and functionality that they're typically unfamiliar with. To ensure that employees use UC to its full potential, they must understand and believe in how it will positively impact them and their working processes.

It comes down to the old adage *what's in it for me?*. The average employee's priority won't be that UC saves the company money; rather, they need to know that they can rely on the platform not to shut down when they're sending an overdue report to their manager.

To encourage staff to respond positively to the introduction of UC, our experience tells us that it's important to consider the impact in advance of any rollout. Assess your entire organisational structure to understand all the different roles that UC

will affect. Interviewing employees and understanding exactly what their job entails will ensure their issues are taken on board as well as provide valuable insight into their concerns.

Employees expected to adopt a new way of working will need to be supported with training. However, rather than being helpful, a lengthy and time-consuming training programme could leave your users confused and overloaded with information.

A more effective way of getting the organisation on-board with UC is to provide a quick introduction, picking out the most important and frequently used functions. For larger organisations, training super-users is a fruitful tactic. Those who take longer to adapt won't feel they are constantly calling the IT department for help as they can learn from their peers who have been trained more comprehensively and can explain processes in simpler terms. It will also relieve the strain on your IT team, who may be hard pressed to cope with a long list of individual queries.

Deploying a unified communications platform and introducing new features can be the easy part. The successful adoption of a platform will depend on your users. So make sure you take an employee-centric approach and consider what's in it for them.

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**networking** is published monthly by: Kadium Limited, Brassey House, New Zealand Avenue, Walton-on-Thames, Surrey, KT12 1QD, United Kingdom.  
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Annual subscription: £80 (UK); £95 (Europe); £100 (USA and the rest of the world) airmail. Cost per single copy is £8.25.

Printed in England by Williams Press.  
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ABC audited circulation:

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## Riverbed transforms

Riverbed has re-positioned itself from a single product vendor specialising in WAN optimisation, to one that now offers a platform portfolio based on application performance infrastructure. Following a four-year programme, the firm has developed four main product areas to enable a concept which it calls "location-independent computing". This includes platforms for storage and disaster recovery, application development control, as well as performance management. Riverbed adds that it has continued to invest in its core business and claims *Steelhead* remains the number one WAN optimisation solution. ■

## Boston to connect Glasgow

Boston Networks has been appointed as the 'Official Cabling Services Provider' for the Glasgow 2014 Commonwealth Games. The firm will be responsible for the delivery of cabling infrastructure required across all event venues. It currently estimates this to include the installation of more than 3,000 individual outlets and over 100km of fibre. Boston says all cabling for the games will be installed on a temporary basis and will be removed afterwards to be recycled in accordance with industry standards. Individual venues may be able to retain any cabling upon request. ■

## KEMP appoints Zycko as training partner

Zycko has become the UK's first authorised training partner for KEMP Technologies. For those wishing to attend a *KEMP Certified Engineer Bootcamp*, the first course of 2014 is scheduled for 5 March, with a full training schedule in place for the year. Value-added distributor Zycko says its Professional Services Team has so far delivered certified training to more than 2,000 IT professionals with Asigra, CommVault, Meru Networks, Riverbed and Virtual Instruments. ■

## City to spend more?

Ovum predicts the financial sector will invest more in IT infrastructure next year. Over 66 per cent of respondents queried on infrastructure spending forecasted an increase of between one and six per cent in their outlay. Ovum says financial firms need this investment for finding new opportunities to drive profit, by moving into new markets, trading venues, geographies and asset classes. ■

# Explosion in mobile data demand threatens the digital economy

The strain on telecoms networks caused by future demand will threaten the UK's digital economy unless urgent action is taken, warns the Institution of Engineering and Technology (IET).

The institution says the huge growth in the use of mobile communications presents unforeseen challenges such as the explosive growth in data being generated and accessed by wireless devices. It adds that telecoms companies around the world are struggling to carry the data volumes without having to invest on a prohibitively large scale.

Speaking to politicians, policy-makers and business leaders last month, Professor Will Stewart, chair of the IET communications policy panel, said: "As the use of smart



**The IET's Professor Will Stewart believes Demand-Attentive Networks will offer a more affordable alternative to adding more bandwidth.**

devices has grown, so has our desire to receive instant data and communications. However, we are reaching a tipping point and we must act now and put in place radical solutions for the future. Otherwise the UK is at risk of losing its leading position, and we are likely to experience huge disruption to the network in the form of slow download speeds and an inability to connect."

The IET calls for a "more radical joined-up" approach and proposes the concept of user-focused Demand-Attentive Networks. It says that these anticipate and respond rapidly to needs as they arise, and is a quicker and more affordable solution than increasing bandwidth across networks.

"Demand-Attentive Networks have the potential for the UK to innovate by building the next-generation, high-performance network infrastructure in an affordable manner that satisfies user demand, whilst keeping the digital economy running," said Stewart.

He added that the UK, with its dynamic usage and regulatory environment, now has the opportunity to lead what he described as a "global advance" in networking. ■

## Perivale set to become major data centre location

Work is now well underway on the building of a new 12MVA substation at London's Perivale Data Centre. The substation is fed from the national grid by two dual resilient 11kV feeds, either of which will be capable of supplying the full 12MVA load.

Perivale One is the first data centre to have gained planning permission on the 20 acre Perivale Park estate in West London. The site is owned by Hermes Real Estate Investment Management Ltd (HREIML)

which aims to make it a major data centre location. The firm is working in partnership with GCE Data Centres to deliver phase one, a purpose-built two storey facility in the park. This phase, which already has full planning consent, is offered for lease as a 30,000ft<sup>2</sup> powered shell, translating to some 15,000ft<sup>2</sup> of net technical space.

David Willcocks, director of Jones Lang LaSalle which is one of the lettings agents for the scheme, says: "Opting for a powered

shell data centre solution can shorten a clients' build time by two years."

With the new substation build running to plan, Perivale Park is expected to be energised later this month. HREIML and GCE say they also have at least ten "high-profile" carriers poised to bring fibre into the site. They include: BT; Colt Telecom; CWW; EasyNet; Geo Networks; Global Crossing; Redstone; SSE (Neos); Verizon Business; and Virgin Media. ■

## Networked surveillance makes school more secure

A network-based video security system has helped the £35m Trent Valley Academy (TVA) in Lincolnshire clamp down on bullying and anti-social behaviour.

TVA's campus in Gainsborough comprises a 15,000m<sup>2</sup> four-storey building on a 12 hectare site. It is used daily by just over 1,000 pupils, staff and guests.

Its previous CCTV system featured analogue cameras that offered poor image quality, covered little of the active parts of the campus, and required manual operation. Working with security specialist Proxis, TVA initially deployed 12 MOBOTIX cameras to provide base line security covering high traffic areas across the site. All the cameras are connected into the academy's network and are hard wired, with an average cable run of 50m per unit.

The new system enables the school to monitor a wider area with both video and



**Andy Smith, Trent Valley Academy's facilities manager, says the new CCTV system allows his team to do a lot more with far fewer cameras.**

sound. All video can be quickly accessed using *MOBOTIX Control Centre* software from any authorised PC within TVA, while footage is held securely indexed on fully redundant NAS servers for an extended

period of time. Following the initial project, 14 additional cameras were deployed to cover internal zones such as corridors, the lunch room, locker and recreation areas.

The cameras include fully hemispheric models with the ability to cover an entire room with just a single, ceiling-mounted, 360° lens. What's more, they blend into the décor and look similar to smoke detectors.

Ninety-nine per cent of the site is currently monitored by the system. As a result, facilities manager Andy Smith says the school now has fewer instances of bullying, vandalism or aggressive behaviour. It is also able to act more effectively to incidents with the backing of high-quality CCTV images.

"Once a few incidents had occurred, which were successfully dealt with due to the evidence provided by the MOBOTIX system, word got out amongst the students and discipline improved greatly," he says. ■

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## VIEW FROM THE TOP

Martin Prendergast, CEO and co-founder, Concorde Solutions

### Is the IT department going the way of the Dodo as the CIO function thrives?

Research from the Cloud Industry Forum indicates that hybrid IT is the future of IT estates. As businesses move away from traditional enterprise software platforms and adopt open source, cloud-based apps or mobile technology, the CIO function will thrive while the IT department withers. But when it comes to adopting technology or implementing changes, businesses must ensure that the principle of remaining in control and keeping a holistic view of their software estate remains the same.

Businesses are using powerful applications via the cloud and they are increasingly expecting all applications to be the same. But this is simply not the case for enterprise IT. Married to this is the perception of elastic capability to expand and contract as required on a pay-as-you-go model. Throw into this mix the frustrations of lengthy waits due to long development schedules, and you have a huge challenge for traditional IT departments.

The nightmare scenario for many is already here as business units are able to deal directly with service providers who will deliver fit for purpose, pay-as-you-go apps with minimum upfront capex.

It's been said that businesses must refocus from the 'technology of IT' to the 'information of IT', and that today's CIOs need to specifically look at developing

services that understand, exploit and use the information of the organisation. This is the core evolution of the CIO as it increasingly aligns with the needs and strategic aspirations of the business.

It's a big challenge for enterprises to manage the number devices and cloud services they have adopted; while at the same time trying to grasp how changes to the software environment will impact on usage, or alter licensing requirements.

It may seem like chaos, but making use of solutions such as business intelligence (BI) can deliver that much-needed clarity. With the help of BI, businesses can uncover the areas where risk and exposure are high, and can further deliver a complete picture of the IT environment to assist confident decision-making around questions such as choosing a software vendor. This kind of usage audit helps to ensure you are being charged correctly by your provider. For example, you can check whether you are being charged for the right amount of software used, rather than the number of devices that are connected to the network.

In a complex and dynamic technology eco-system, predicting the demise of the IT department may be somewhat premature. When it comes to maximising value from investments, the IT department still has a vital part to play.

# Industry needs to meet "VASPA" challenges

Cloud computing could become a victim of its own success unless the five key issues of virtualisation, automation, security, programmability and analytics (VASPA) are addressed. That's according to the recently formed Cloud Ethernet Forum (CEF) which has called for the industry to work together to define global standards.

Speaking at the CEF Regional Members' Meeting held in Singapore last month, forum president James Walker said that VASPA represents the five fundamental principles that will be initially prioritised by the CEF and its working groups.

"Unless the industry – vendors, service providers and OTT providers included – really work together to define global standards and address these challenges, then cloud computing could fall victim to its own success," he warned.

The CEF is already establishing working groups to address specific concerns. For instance, with virtualisation it says network service providers need to manage both the end-to-end transport of storage and VMs, and network virtualisation tunnels. But what needs to be established is how to make sure that a unified management layer can be rolled out across a network, and is able to meet the deterministic performance



**CEF president James Walker says networks are seeing a number of major transitions under the pressure of mobility and the move to cloud services.**

needs of cloud traffic. The CEF adds that the role of network function virtualisation in this process will also be considered.

In addition, the forum points out that while VMs can be established in seconds, network automation lags far behind. "Vendor independent protocols and standards are needed to accelerate network automation and delivery and creation of services, particularly across multiple service providers – such as in a hybrid cloud environment," it says.

The forum also says that for the cloud to remain on its growth path it needs robust structures to ensure end-to-end security. Programming of network equipment (such as routers and switches) should be opened up to third-party APIs. A continuous exchange of information between the network and the cloud service providers on network and application service performance is also needed. ■

## Virtualisation reduces PC energy costs by 90 per cent

The Scottish Environment Protection Agency (SEPA) is deploying Citrix technology to empower its employees to work from anywhere using any device. By transitioning to a mobile environment, the agency aims to significantly reduce unnecessary travel, reduce carbon and energy costs, and enable staff to be more productive and work more collaboratively.

With 1,200 employees, 25 offices and a remit that can potentially generate a great deal of travel, SEPA wanted to reduce the environmental impact of its activities. In June, it moved into a new building designed specifically with mobile workstyles in mind. The Angus Smith Building has seven hotdesks for every ten staff. It's claimed this, combined with the move to thin client devices and Citrix, has reduced desktop PC energy costs by 90 per cent.

The agency worked with Citrix partner I-KONIC to implement the solution which comprises the *XenDesktop*, *NetScaler*, *Receiver* and *CloudBridge* platforms.



**SEPA's new Angus Smith Building was designed with mobile workstyles and hotdesking in mind.**

Virtualisation is being used to centralise data and applications, delivering them out to users as a service. Staff can now access their SEPA desktop wherever they are and on any available device.

A quarter of SEPA's workforce currently benefits from the virtual desktop solution. It has also meant that travel associated with IT support and moving between offices has been greatly reduced. The agency plans to roll out the model across the whole organisation over the next two years. ■

## Capita to offer Microsoft apps via pay-as-you-go private cloud

Capita IT Services says it has become one of the first cloud providers in the UK to offer popular Microsoft applications in a private cloud environment.

As part of Microsoft's national initiative to accelerate the offering of more secure cloud services, applications such as *Microsoft Exchange*, *SharePoint* and *Lync* will be made available via the *Capita Private Cloud (CPC)* which was launched in September (see last month's News).

Capita says customers who appreciate the security of private cloud will now have the option of choosing Microsoft applications

which were previously only available via the public cloud. It adds that they also have the reassurance of all data being stored in Capita's UK data centres.

CPC is said to offer flexibility, enabling customers to choose exactly what they need and only pay for what they use. According to Capita, the platform provides access to more than 2,000 pre-tested cloud applications via a self service portal, and services can be easily tailored, monitored and managed. The firm plans to offer an IL3-compliant cloud-based service via CPC in the future. ■



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# All for a good cause

How charities are using cost-effective network technologies to support their work.

## IP gateway avoids 'rip and replace' for CAB

From its origins as an organisation offering advice about matters relating to life in war-torn Britain during WW2, the Citizens Advice Bureau (CAB) has evolved into a complex mix of more than 400 individual charities, serving over two million people each year via 3,300 offices across the UK.

Juggling increasingly high demand for services with constricted budgets, the offices desperately needed the efficiencies possible through using modern telecoms technology but did not have the budget for such a massive investment. In 2012, the issues associated with legacy calling features came to the surface at the large CAB office in Wavertree which often collaborates with colleagues in nearby Netherley to serve client needs around the clock.

Both offices have legacy *Nortel Business Communication Manager (BCM)* platforms. Rather than replacing these, the CAB decided to improve operational efficiency and reduce running costs by integrating innovative communications technology at the edge of the network. Liverpool-based networking services provider Locall.Net was called in to develop a complete and

modern telecoms solution.

Its first recommendation was to replace expensive ISDN links to the PSTN with SIP trunks that would carry voice calls across the IP network. This would also enable the use of VoIP for all external communications. Locall.Net kept the *BCMs* at the core of the network, which allowed the CAB offices in Wavertree and Netherley to continue their existing call routing and dial-plan configurations.

The BRI lines which were used to terminate the ISDN service from the PSTN at each site were then cutover to a Sangoma *Vega50 Gateway* (pictured left). This provides the TDM-to-IP conversion of voice calls. It also interconnects the *BCM* at each site to the IP router that terminates the SIP trunks supplied by Gradwell. Locall.Net MD Sean Gallagher says not only did this minimise service disruption and reduce the deployment time, it also eliminated the need for user training, thus quickening the path to a financial payback.

"The flexibility and simple configurability of the Sangoma gateways virtually eliminates any concern about integration of the legacy Nortel equipment with IP routers and wide-area SIP trunking services. The *Vega50s* are proven to work out of the box with less than 10 minutes of configuration time. This in itself gave us the confidence to eliminate the cost of pre-configuration and testing in our facility and ship the gateways

directly to the CAB sites," he says.

Following the installation, staff were able to automatically route calls to colleagues according to their availability and varied business hours. Sharing the workload between centres and simplifying the ability of advisers to easily consult with experts at other sites has not only improved the CAB's efficiency, but has also helped it to resolve client enquiries in a single call.

## No email downtime for Ormiston Trust

Like any organisation, email capabilities are vital for Ormiston Children and Families Trust (OCFT). With staff located all over the region, remote 24/7 access to email is crucial for all communications. OCFT's bespoke email system used POP3 and had been originally written and supported to meet its needs when it had only 50 employees and a handful of offices. Because of continuing growth, the trust needed to change technologies.

"We were very satisfied with the old system but we had simply outgrown it," explains Sarah Smith, OCFT's ICT coordinator. "We now have over 250 employees and many more offices. We recognised that we had to move up a level. But we needed something that was cost-effective, easy to use and manage, and could be easily accessed by our employees located all over the east of England."

While the trust could have installed its own *Exchange* server, Smith decided to explore hosted services based on cloud technologies as this would mean staff could access their emails from any location with an internet connection.

"This is important because many charities have a mobile workforce. Cloud-based hosted email is also highly cost-effective because organisations only pay for each 'seat' rather than a licencing and hosting cost. And hosted email technologies are highly robust, while being flexible: you can quickly add or delete users, and are only charged for what you use. This allows charities to manage their email costs very carefully," she says.

Initially, Smith looked at a large corporate hosted email company but was put off as it seemed "faceless" and didn't offer a personal approach. After learning about Cobweb's *Hosted Exchange* cloud-based email solutions, she decided this was the platform that would provide the flexibility and cost-efficiency OCFT required.

Cobweb quickly migrated Ormiston's 250+ mailboxes from the original email system to its *Hosted Exchange*. It also made sure that OCFT could retain all the historic email it wanted to transfer to the new solution, which varied from just 50 messages to up to 12,000 per user.

The trust can self-administer its *Hosted Exchange*, and can add and delete new users as required. In addition, Smith says the platform's flexibility and reliability will allow Ormiston to quickly re-configure it to meet future needs. All this, together with help desk support, was included by Cobweb at no extra cost.

Smith says that since OCFT started using the *Hosted Exchange*, her team has not received a single report of any downtime. "We are so pleased with Cobweb's cloud-driven email service that



we are now considering Cobweb's *SharePoint* service," she concludes.

## Network monitoring vital for patient care

Part of Taunton and Somerset NHS Foundation Trust, Musgrove Park Hospital is the largest general hospital in Somerset, serving a population of more than 340,000 and employing 4,000 staff.

Prior to implementing a more comprehensive network monitoring solution, the hospital's IT team used some basic monitoring for key systems but this was very limited. "We would often only know about issues when users reported systems offline," explains Mike Isaac, network and systems manager.

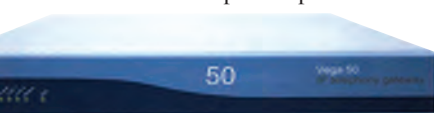
After investigating alternative solutions, and following a recommendation from another NHS organisation, Isaac decided on Paessler's *PRTG Network Monitor* to oversee the hospital network. The system monitors everything from servers and UPSs to network switches across three locations which include two acute trusts and an offsite office building.

The *PRTG* monitors both the hospital's internal and external network and is set up on 10,950 sensors. It can be overseen via a web interface using *Windows* and *Mac OS* PCs, as well as *iOS* and *Android* mobile devices. In the event of a problem, support staff receive SMS and email alerts which means that they can ensure the IT is running smoothly even when their off-site.

Before introducing *PRTG*, one typical issue was that hard drives ran out of space and eventually caused a system to go offline. Now, the team receives an alarm when a drive has 10 per cent of free space left and can plan ahead to resolve the issue before systems go offline. "If one PC fails, users can move to another one. But if a server-based application goes down this isn't an option – especially if any treatment plans or patient records have to be looked up in that system," says Isaac.

He adds that since introducing *PRTG*, system downtime has been reduced, and his team has been able to target its work so it is more focused. "The amount of maintenance we do has not changed, but with such a high number of servers and switches, *PRTG* enables us to prioritise within the team the areas where an issue might occur before it happens."

Isaac says by implementing *PRTG*, the IT team can now offer a more reliable service for the hospital, ensuring medical staff are able to deliver frontline care.



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# Which way now for government networks?

The Public Services Network was set up to create a single, standards-based network, and a more open and competitive ICT marketplace for the public sector. But some experts say it has yet to deliver on the promise. So where does it go from here? RAHIEL NASIR finds out.



Accredited suppliers such as Unify say the PSN is now at a crossroads. Should it continue with the processes of replacing legacy infrastructure or become more innovative?

The government launched the Public Services Network (PSN) frameworks in September 2011 with the aim of reducing the cost of communication services across its departments, and enabling new, joined-up and shared public services for the benefit of citizens. Two national frameworks were established by the Government Procurement Service (GPS) for connectivity and additional services. By March 2012, PSN-compliant services and systems were already in use in local and central government, and resulted in confirmed savings of £64.2m in 2011-2012, according to the Cabinet Office.

Three months later, it announced that the government had reached a "major milestone" in its ICT strategy as it named the successful suppliers of IT services for the PSN. Twenty-nine firms were listed on the new framework (see *PSN services suppliers – June 2012, right*). At the time, PSN programme director Craig Eblett said: "A fair and open PSN marketplace is now in place, and there is strong demand from public sector organisations to access it."

The government's *PSN Programme Directors Interim Update* for August 2013 reported that 151 customers are currently PSN Compliant. Combined sales from the GPS' Managed Telecommunications Convergence and PSN frameworks in the current and last financial years now stand at £90.7m. Twenty-two suppliers have won work – Virgin Media Business (VMB) continues to hold the largest share of competed contracts with 61 per cent by value. It is followed by BT, Unify (formerly Siemens Enterprise Communications), and EE who each have around six per cent.

The update says central government's share of orders is currently around 32 per cent by value. This is expected to rise to about 80 per cent throughout the life of the frameworks. Local and regional government share by value is presently 29 per cent, while health organisations are 22 per cent.

## Time to switch gear

Some suppliers believe the PSN has not been as successful as it should have been. "There are two PSN Frameworks for Connectivity (LAN/WAN) and Services (10 lots covering a broad range of services)," says Jason Hall, BT's director of PSN. "The customers making use of the frameworks are reporting significant savings, particularly where they have taken the opportunity to consolidate several separate networks into a single network. But it's fair to say that the volume of business transacted through the frameworks has been lower than anticipated to date."

Perhaps that is to be expected – after all, local and central government departments are big tankers to turn around when it comes to changing course. But on top of that, Unify believes the PSN has now reached a crossroads. CTO Michael Bowyer says: "The question for

the PSN is whether it continues with the legacy procurement processes currently in place – which replace existing IT products or services – or does it innovate, unlocking the latent potential that it holds for the wider public sector?"

Bowyer points out that the PSN's ultimate goal is to connect public sector organisations across the country, enabling seamless sharing of resources, encouraging collaborative working, interoperability, and use of mobile and wireless infrastructure. But he says this potential cannot be realised unless compliance, identity and access management come top of the agenda.

He also says that too few vendors are putting products, services and networks through the requisite compliance requirements. As a result, only a limited number of PSN contracts have a proper, accredited Government Communication Network (GCN) gateway connection and/or the ability to be used or accessed by other

public sector organisations. Bowyer warns that if public sector organisations strike out on their own, the "very foundations" of the PSN will be compromised, and financial and operational goals will be lost.

"If public sector bodies do not adopt new procurement methods, dealing only with fully compliant suppliers and services, the public sector is in danger of creating islands of connectivity and will lose the ability to aggregate demand of PSN services."

## Building the network

Clearly there are hurdles that need to be overcome moving forward. But what about today? The PSN is no ordinary network, so what unique challenges does it present to suppliers of services and infrastructure?

Kcom was awarded places on both frameworks and has worked with a large number of public sector organisations that have benefited from savings of between 20 and 40 per cent – "a clear sign they've been successful," according to Afshin Attari, Kcom's director of public sector and PSN.

The company's pioneering deployments include PSN compliant managed WAN infrastructure and services in Dorset and Staffordshire, and the implementation of the East Midlands PSN (emPSN). Attari says this new shared network has evolved from the regional school network and now serves corporate public sector bodies across the East Midlands. "In Lincolnshire, one of the counties where Kcom has implemented the emPSN, the county, district and borough councils have enjoyed a consolidated saving of over £2 million per year on their spend on connectivity services directly as a result of the emPSN," he says.

"We're now working with the Cabinet Office to allow all connected councils to access Government Secure Intranet (GSI) services across the regional PSN infrastructure, which is connected to the national PSN Infrastructure (the central interconnect

## PSN services suppliers – June 2012

**2e2 UK** – went in to administration in February 2013. Its data centre business is now managed by Daisy Group

**Airwave Solutions**

**Azzurri Communications**

**BT**

**Cable & Wireless Worldwide** – now part of Vodafone Group

**Capita Business Services**

**Cassidian UK**

**CSC (Computer Sciences Corp)**

**Computacenter (UK)**

**Daisy Communications**

**Easynet Global Services**

**EE** – formerly Everything Everywhere

**Freedom Communications (UK)**

**Fujitsu**

**Global Crossing (Level 3)**

**Icom Holdings**

**KCom Group**

**Logicalis UK**

**NextiraOne UK**

**PageOne Communications**

**Phoenix IT Group**

**Unify** – formerly Siemens

**Communications**

**Specialist Computer Centres**

**Telefónica UK**

**Telent Technology Services**

**Thales UK**

**Uniwold Communications**

**Virgin Media Business**

**Vodafone**

Other PSN compliant service providers listed by the Cabinet Office in November 2013 include: Alliantist; Atos; CGI IT UK; London PSN (London Grid for Learning Trust); MDNX; Skyscape; and Updata.

SOURCE: THE CABINET OFFICE

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which is referred to as the 'Government Conveyance Network') through which the GSI services can be consumed."

According to Attari, the challenge has been to make sure organisations that have the potential to join existing regional PSNs can share the infrastructure that already exists, rather than use the PSN frameworks to procure their own individual solutions. "Merely buying from the PSN Frameworks does not (necessarily) represent PSN compliance," says Attari. "Services offered must achieve PSN compliance and the requirements and process for this are set out in documents such as the *PSN Code of Compliance* templates."

He adds that the technical requirements for the PSN, particularly connectivity services, are set out in publicly available documents such as the *PSN Operating Model* and the *PSN Technical Domain*

*Description.* "The key challenge is to make sure the services offered meet both these specifications and the needs of the procuring organisation."

Virgin Media Business agrees that gaining compliance is crucial and that leaving this late can lead to a bottleneck in the process, both for customers and supplier. This can ultimately delay delivery and adoption of the services which PSN is enabling.

VMB was the first service provider to connect a customer to the PSN, according to the firm's business development manager Richard Barnes. Through *Project Pathway*, he explains that VMB connected Hampshire County Council to the PSN so that it could share digital services with Kent County Council via provider Level 3. "Crucially, we were the first provider to achieve government

approved security standards and still hold this qualification to date, ensuring that sensitive data is safely transferred at the highest security levels.

"We were also the first provider to enable customers to connect to GSI services through the PSN, which we did for LondonPSN. We're currently working with London, Cambridge, Hampshire and many other customers to connect their networks to the GSI services through the PSN."

In addition, Barnes says VMB recently linked a range of public sector organisations across Yorkshire and Humberside as part of a network delivered through the PSN connectivity framework. Up to 52 public service providers are now said to have the opportunity to access a range of innovative PSN compliant solutions through this one framework.

## Avoiding the pitfalls

According to Attari, the biggest mistake you could make when working in the PSN environment is failing to understand the complexity of offering services to public sector users. He says that it is critical to ensure separation between different user organisations on a multi-tenanted network.

"If different users are handling information at different levels of security (which is often the case in a police environment), an additional level of complexity and additional compliance requirements are introduced. Similarly, services offered must be constructed so they can achieve compliance and be used in a multi-tenanted environment."

Logicalis echoes this. According to its UK managed services director Tim Wadey security is a top concern for government as it is with any organisation. "But of course, securing a police force in Wales is completely different to securing a multifunctional council incorporating all manner of services like healthcare, emergency services, highways, housing, and so forth. This is an issue that could stifle the full potential of the PSN Framework if not addressed."

Wadey adds that one of the issues with shared services initiatives like the PSN Framework is they encourage standardisation. "Customers don't want homogenised solutions from their technology providers. Each branch and locality of the public sector is using technologies in different ways; this needs to be considered to avoid a situation where individual customers aren't able to drive out the real value they need."

Because Logicalis sits on both the Connectivity Framework and eight out of the ten lots on the Services Framework, Wadey claims it can supply a complete portfolio of services as well as connectivity. "As an integrator we're not restricted to one particular type of technology, which gives us a broad scope of expertise. We can approach each

## Driving new standards

The Driving Standards Agency (DSA) will use MDNX's PSN-compliant WAN service between its data centre and 315 test centres spread throughout the country.

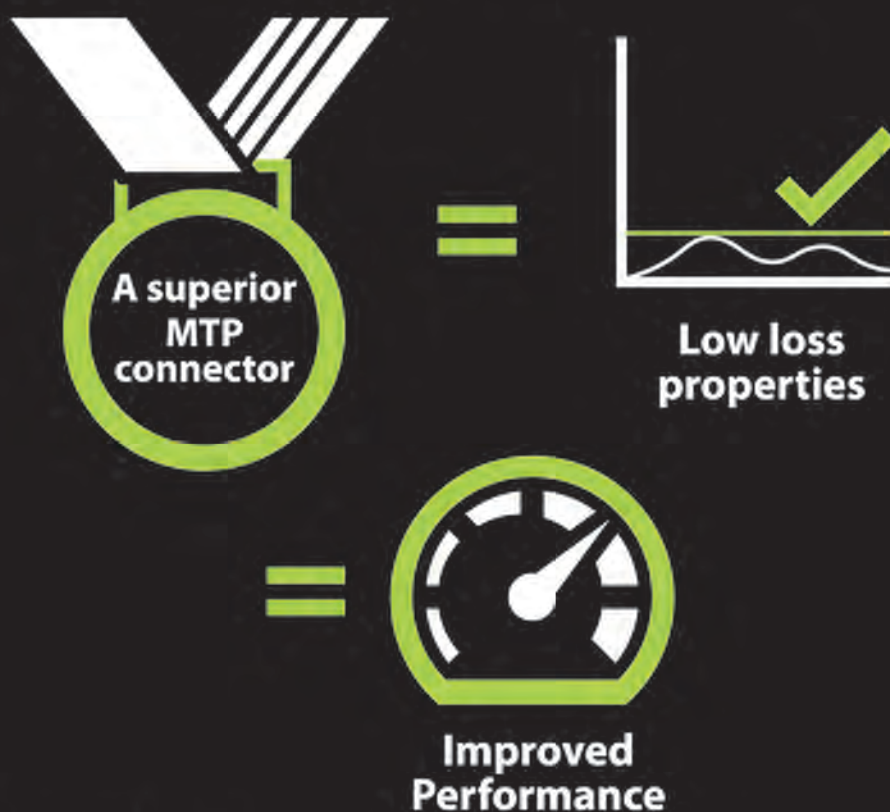
Headquartered in Nottingham, the DSA conducts over two million driving tests per year. The agency needed to procure a replacement service for its existing legacy infrastructure, which had been declared 'end of life', whilst ensuring that the replacement network was PSN compliant.

Working with very short timescales for transition to the new network, the DSA had to ensure the solution would meet its deadline, but without risking continuity of service. The tender process was carried out through the PSN framework, enabling the DSA to identify a suitable supplier without a lengthy tendering process.

Under a three-year deal, Bracknell-based MDNX – which claims to be the UK's largest independent network integrator – will deliver an IL2 integrated WAN with an IL3 gateway to the DSA's data centre. MDNX says the new WAN will allow the DSA to move or add sites throughout the contract when needed.

The firm adds that its network will provide faster connections to the DSA's driving test centres. This will improve the usability and availability of online services to staff at the centres who will be able to log on faster and improve the speed to access the shared folders on the network. The agency will also benefit from an enhanced access to network monitoring tools with this new solution.

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customer consultatively and tailor the solution to suit them, which in turn allows the customer to benefit fully in terms of business value, cost, and expertise."

Like Logicalis, BT says it's important to be able to manage interconnection across many customers and suppliers, making sure the end-to-end service management works, and ensuring appropriate levels of security for different parts of the network.

Hall describes the PSN as a 'network of networks' – effectively, a standards-based linking together of 'corporate' WANs in local authorities, police, health, central government and other organisations involved in public service delivery. "And of course, you have to ensure the maximum benefits can be gained from inter-working through improved collaboration, shared services and more joined-up and efficient public service delivery," he adds.

As an example, Hall cites the Unicorn partnership which serves a range of public sector organisations in Berkshire and Surrey. "Here, we're consolidating 40 networks into one, delivering a wide range of services to transform the way they operate and connecting the aggregated network into the PSN."

Hall reckons BT offers the widest range of PSN certified services, including WAN connectivity and a more secure IL3 overlay. He believes that to be fully exploited, the PSN needs to be managed as a change programme, not just a technical project.

"There are real cashable savings to be made from lower cost networks but the big savings will come through much better collaboration, resource sharing, process change and the reform of public services. Those services can now be redesigned around their users rather than the restrictions of the previously unconnected organisations delivering them."

MDNX says its "pioneering" *Carrier Integration Model* integrates all major carriers in the UK via resilient links into its core integration network. It says this enables the design, build and management of solutions and services unrestricted by carrier network and product set limitations.

"The DSA have many locations, spread out over a wide geographical area, and this poses its own distinct challenges," says Isy Bizaoui, MDNX's public sector MD. "Our integration approach is a great fit for their requirement, as it enables us to design the best technology and most cost-effective solution for each driving test centre location."

He adds that MDNX's solution included the re-use of existing infrastructure where possible, and the use of lower power equipment to deliver further cost savings.



PHOTO: ALL RIGHTS RESERVED. © DSA CROWN COPYRIGHT

The DSA will be using MDNX's PSN compliant WAN service between its data centre and 315 driving test centres. Staff at the centres will benefit from improved usability and availability of online services.

## The future PSN: remedy or sticking plaster solution?

Several suppliers point out that the prospect of adoption by both health and police organisations will be the next important step for the PSN to take. But many also agree the platform now needs to move from 'programme' to 'business as usual' as VMB's Barnes says. "Now that CIOs are confident it works, they need to know how they can use it to transform their service in this time of austerity. So the future of PSN is that it moves away from being a technology solution, and towards changing the way public services are delivered for good."

BT agrees. Hall says the PSN is fast becoming the trusted environment within which public service providers can collaborate and share information or

resources in ways that just weren't possible before. Through this, services can be reformed and processes transformed. "[The PSN] is redesigning the ways things are done around the service user, rather than the constraints of the previously unconnected organisations delivering those services."

"The PSN can do even more than cut network costs and deliver shared services. Shared knowledge, pushed to the right people at the right time, could help direct public services where and when they're most needed; anticipating rather than reacting, reducing waste, closing provision gaps and improving lives."

For Kcom, the consumption of services such as GSI over PSN connections will prove the point that PSN is a standardised route for the delivery of services. "[It] means that suppliers who can connect PSN compliant services to the GCN have

network connections available that any connected public sector organisation can use. That's the future of PSN," says Attari.

Unify's Bowyer maintains that while the PSN is delivering savings, these have "barely scratched the surface" of what the network can deliver for the public sector. He says that the true productivity gains will be accelerated by PSN services – and not from mere implementation.

"To maximise the potential of PSN, the public sector must embrace innovation and demand that suppliers provide fully accredited services. We must ensure that organisations are operating within the same frameworks on a pan-governmental level. If we do not provide an even keel from which to operate, the PSN will stutter and the curing remedy that could have been administered will be no more effective than a plaster." ■

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## off-the-shelf: enclosures

## Left on the shelf

These cabinets and enclosures offer more than just mere cupboard space for your IT equipment.

The *Verak* 19-inch floor-standing enclosures from Italian cabinet specialist **APW Electronics** are available in three versions. The *Verak EMC* provides protection from RF interference to ensure electronic systems meet EMC requirements; the *Verak IP* provides protection to IP65 from the ingress of dust and moisture; and the *Verak EMC/IP* is a combination enclosure that provides both levels of protection.

Available in the UK from Luso Electronics Distribution, the new line-up comes in a variety of sizes from 27U to 47U in height, and 600mm to 800mm in width and depth. The enclosures' 2mm steel framework is claimed to deliver "exceptional" strength and rigidity and has a static load capacity rated at 750kg.



Luso claims the *EMC* rack delivers more than 80dB attenuation at 100MHz and 40dB at 1GHz – the highest levels available in a standard product. It adds that the EMC gaskets provide electrical continuity between panels and are punched within the EMC screen, making it impossible to remove them without a tool.

The EMC panels and doors are double skinned, consisting of an inner conductive panel and an outer painted protective one.

Cables can be brought in via the top or bottom, and through 5U- or 10U-high recessed panels fitted above or below shortened front or rear doors. The latter are available in either steel or glass, and their hinges can be moved without having to interfere with the IP or EMC sealing.

**CamdenBoss** has launched three UK-manufactured *CamRack* cabinet ranges designed for cabling, telecoms, IT and industrial installations.

The *CamRack-SX SOHO* models are 7U high wall-mounted cabinets delivered flat-packed for reduced logistics costs and

greater protection during transit. Designed for fast and efficient assembly without tools, there are two mounting profiles with variable depths in 20mm increments and optional numbered Us. Templates for wall-mounting are included. Features include fast fixings with quarter turn locks, front

doors with tempered smoked safety glass, no rear panel or door, cable-entry options for top panels, and cantilever trays.

The *CamRack-WX* series 19-inch cabinets are also wall-mounted and offer accessibility from front, rear and sides without tools. The top and bottom cable entries have a capacity of 100 cables. The *WX* models are available in standard heights of 6, 9, 12 and 15U, are delivered assembled, and can be installed by a single technician. They are said to offer a high level of security with a single key-operated lock at the front blocking all access.

The *CamRack LX* series are floor-standing modular cabinets, and it's claimed they can be assembled in



just five minutes. Each cabinet features: an aluminium profile external structure with die cast high-resistance corners; four steel 19-inch sections adjustable in depths of 20mm; removable side panels with quarter turn locks; a lockable steel rear door; quarter turn locking ventilated top panels with cable entries; and four adjustable levelling feet.

CamdenBoss adds that the distributed load capacity for the *LX* series cabinets is 1,000kg (static) or 300kg (dynamic). A range of accessories, including front guides, attachment sets, cable guides/clamps, clip-on support guides and wheel kits, is also available.

**Eaton** claims its latest *RP Series* enclosures feature integrated airflow management capabilities which "virtually eliminate" air leakage. It says the specially designed cabinets help guide cool air directly to the IT equipment, thus maximising the cooling effect, minimising energy cost, and extending equipment life. Eaton adds that when used as an integral element of an airflow containment system, the *RP Series* racks can help reduce energy usage by as much as 35 per cent when compared to non-contained systems.

The new cabinets come in 42U and 48U heights and offer a wide range of cable, storage and airflow management accessories. As a result, Eaton says the enclosures are



capable of accommodating large quantities of cabling while allowing for maximum airflow and simplified access to equipment.

Other features include easily adjustable pre-marked mounting rails, high-flow 75 per cent perforated front and split rear doors, and pre-installed grounding wires and starter kits. The vendor says this all contributes to "a simple and fast" rack installation.

The *RP Series* enclosures can be individually configured to meet the specific needs of any data centre. Eaton also offers two standard, pre-configured rack assemblies. It says the first configuration is ideal for standalone applications, while the second is intended for multiple-rack row or pod configurations.

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**Rittal** has designed the *Micro Data Centre (MDC) Level E* enclosure system to create a complete security zone around the server rack, providing a safe haven for 42U or 47U hardware. It is equipped with the firm's latest *TS IT* server rack (see *Off-the-shelf*, Nov 2012), and has a modular design that is said to be ideal for installation in confined spaces.

The system has cable inlets in the side panels which, if required, can be provided with larger-than-standard diameter plastic tubing. Rittal says this is recommended for water inlet and return flow when using climate control devices, for example.

The *MDC* features baffle plates that divide the interior into hot and cold zones, ensuring airflow and aiding cooling. The company says it has a 90



minute fire protection guarantee that is compliant with DIN 4102 (F90). The enclosure is also said to be resistant to dust and powerful water jets (IP56). Rittal adds that fumes and smoke will not penetrate the enclosure which is also available with up to class four burglar resistance.

The *MDC* has been designed as an end-to-end solution, including 19-inch server racks and a variety of climate control devices. Up to four safes can be connected via the cable inlets in the side panels. It is also possible to use the *MDC* with existing server racks.

Rittal says all components are pre-configured for faster installation. It says that no tools are required when inserting elements into the enclosure, thus saving more time. PHOTO: RITTAL GMBH & CO. KG

**Schneider Electric's** latest *APC Netshelter CX* cabinet aims to help businesses adjust to the shrinking physical IT space due to the adoption of cloud hosting and virtualisation. The firm says less physical equipment is needed to house ICT hardware on business premises and customers are looking for sustainable cooling and management solutions.

The *Netshelter CX* enables businesses to deploy IT equipment in open office spaces. Schneider says it provides a soundproofed cabinet for server and networking equipment, removing the need for a traditional server room. The firm claims that in typical usage, the *Netshelter CX* reduces perceived server noise by up to 90 per cent, operating costs by 98 per cent, and capital costs by up to 80 per cent when compared with a

traditional server room. Designed to look at home with other office furniture, Schneider says the 'server-room-in-a-box' comes equipped with built-in power distribution, ventilation and mobility. The latest version also features enhanced security and networking features. In addition, the 4-Post EIA Spec rack has been mounted on full-depth rails to accommodate extreme server depth requirements.

The rack can also be moved within the enclosure. It's claimed this will benefit cabling applications which will become more frequent as the *CX* is deployed as a networking closet, server cabinet, or both.



## 'Multilinguists' can boost their pay by £10,000

The pay premium attached to those with multiple programming language abilities is estimated to be up to £10,000, according to research by specialist recruiter Greythorn. Despite, this only 44 per cent of the 228 IT professionals it surveyed believe it is essential to know more than one programming language to boost their employment prospects in the current market.

Greythorn says the proportion of IT pros rating multiple programming languages as vital has fallen by 22 per cent in the past year. It warns that it is now even more important than before for them to continue to develop, renew, and refresh their skill-sets in order to maintain competitiveness. "An increasing number of companies, especially those in London, are looking for flexible employees who have the capacity to work in a number of functions for cost reduction purposes, which can sometimes necessitate knowledge of up to three or even four languages," says Greythorn director Mark Baxter.

Citing the TIOBE index from code quality checking specialist TIOBE Software, Greythorn says the three most popular languages in October 2013 (in terms of the number of lines of code written using them) were *C*, *Java* and *Objective-C* respectively. However, the fastest-growing language is *Groovy*. This has seen rapid expansion over the past twelve months and is now in TIOBE's top twenty for the first time – up to 18 from 53.

"Looking at TIOBE's index, it might appear obvious that professionals focus on the perennial languages of *C*, *C++*, *Java*, *Objective-C* and *PHP* which continue to be in highest demand," says Baxter. "However, those who branch out and also focus on the fastest growing languages will reap the best rewards, as there will be fewer professionals to match their skills and expertise."



**Greythorn director Mark Baxter advises IT professionals to take the time to assess the programming languages that are most in demand.**

## Big Data skills vital to realise UK business benefits

A new industry report reveals that 69,000 Big Data specialists will be needed in the UK's public and private sectors by 2017. But at present, many large organisations find it challenging to hire specialists.

*Big Data Analytics: Adoption and Employment Trends* was published last month and was compiled by e-skills UK and business analytics specialist SAS. It predicts that around a third of UK organisations with 100 or more staff (approximately 6,400) will implement Big Data analytics programmes in the next five years, pushing the demand for specialists up by 243 per cent to 69,000.

Some 90 per cent of firms believe data and analytics skills are most likely to generate the largest business benefits. 45 per cent say they would realise these benefits through training, but three out of five find it hard to find the specialists they need.

It is estimated that there are around 94 core Big Data users in every large UK organisation which has implemented an

analytics programme. This equates to around 383,000 people, including those outside the IT or data team, who use specific Big Data tools such as dashboards, KPI data, or market analyses.

The report warns that while the number of Big Data specialists is expected to rise 177 per cent over the next five years, this is likely to be disproportionately lower than the number of users which is set to increase to around 644,000 by 2017.

## NEW COURSES

### **MEF-CECP 2.0 Certification Exam – Metro Ethernet Forum**

The Metro Ethernet Forum has updated its *Carrier Ethernet Certified Professional (CECP)* certification exam. It now covers additional Carrier Ethernet concepts and topics encompassing all aspects of the

Carrier Ethernet 2.0 (CE 2.0) standard. The exam will cover key components including the E-Access service, detailed Service OAM functionality, standardised Classes of Service and resiliency performance metrics. It will test candidates' understanding of Carrier Ethernet as well as their mastery of the new CE 2.0 material.

Those who take the *CECP* exam after 1 December 2013 will be given the revised test, while existing *MEF-CECPs* will retain their certification. For a limited period, professionals who have recently obtained certification can take advantage of a discounted fee for the new exam.

<http://tinyurl.com/qfbyb4g>

**The UPS Handbook, fourth edition – Uninterruptible Power Supplies Ltd**  
Uninterruptible Power Supplies Ltd (UPS Ltd) has launched the fourth edition of

*The UPS Handbook*, its independent guide to modern UPS and critical power protection solutions.

UPS says the latest edition has been extensively updated for 2014 with details on current and future UPS technology and topology. It says the handbook outlines optimum configurations for implementing the most reliable systems using the latest space and energy saving technology.

"The growth of Big Data, the increasing need for businesses to closely manage their energy efficiency, and consumers' demand for 24/7 availability of services are impacting the need for power protection solutions," says the handbook's co-editor Kenny Green. "Understanding the role UPS plays in achieving these goals is essential and the new handbook offers answers to the important questions." [www.upspower.co.uk](http://www.upspower.co.uk)

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