

networking

FIXED & WIRELESS NETWORKS FOR ENTERPRISE USERS

Paperwork to go

TotalMobile means public sector workers spend less time in the office
News, p4⇨



Bandwidth for boffins

The networks that are boosting science and tech in the UK
Real World Networks, p8⇨



Are you being served?

Unravelling the pros and cons of outsourcing the network
Feature, pp10-13⇨



Fault finders

The latest devices to help test, analyse and measure LANS and WANS
Off-the-shelf, p14⇨



Commsworld PoPs to unite Scotland

by Rahiel Nasir

Edinburgh-based Commsworld says it plans to “attack the big players” in the communications industry by unbundling more data network exchanges in order to give local businesses in Scotland a greater choice of services.

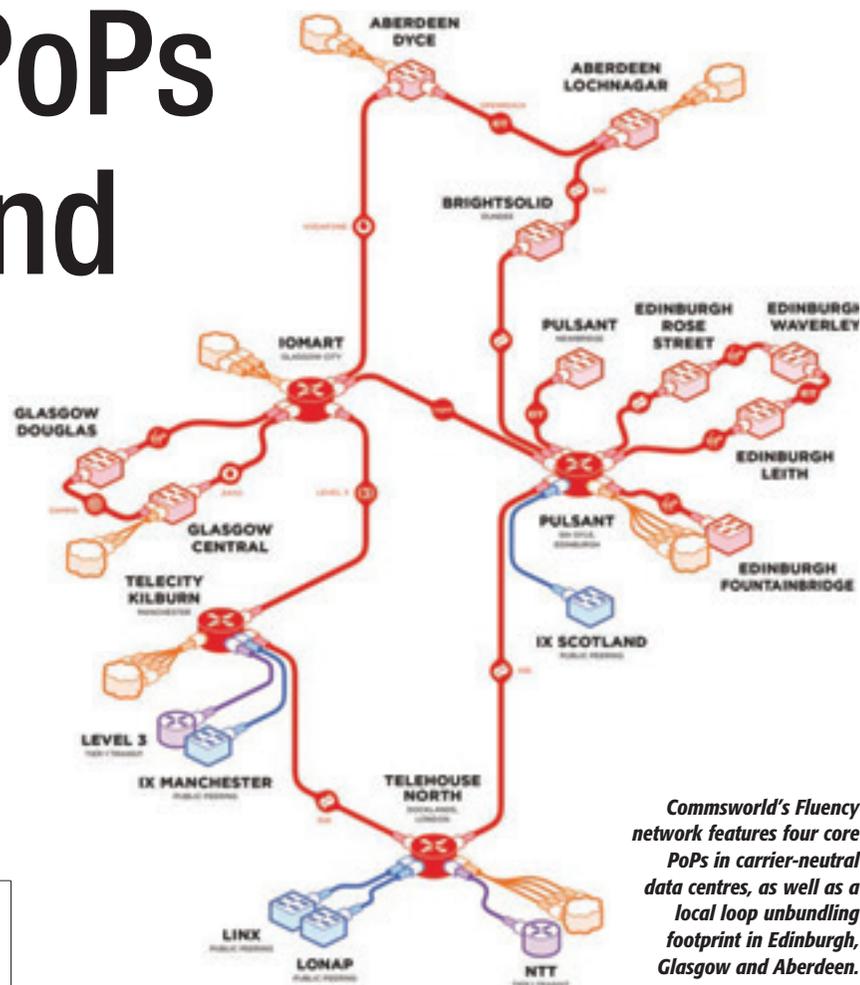
Earlier this year, the network provider and unified communications specialist unbundled the local loop at Edinburgh’s Rose Street exchange (see *News*, April). It now plans to unbundle five more exchanges over the next six months in Aberdeen, Glasgow, Edinburgh, Dundee and Inverness. The company says it ultimately aims to create a total of 31 PoPs.

“A lot of our clients tell us they have been crying out for a better and more flexible service for years but it simply wasn’t available due to lack of competition,” says

Commsworld commercial director Andy Arkle. “Our network has been set up to offer increased resilience by using multiple exchanges to deliver information to and from our clients. This means if one exchange should fail there will be a backup in place.”

Commsworld says its network, dubbed *Fluency*, is the only indigenous Scottish network of its type, serving Edinburgh, Glasgow and Aberdeen. The firm reckons businesses located next to one of its PoPs can benefit from quicker access to data without it being bounced through servers in London or Manchester, as would be the case with the traditional bigger providers.

Commsworld claims it has already seen a huge uptake in business through being able to offer companies a superfast,



Commsworld’s Fluency network features four core PoPs in carrier-neutral data centres, as well as a local loop unbundling footprint in Edinburgh, Glasgow and Aberdeen.

bespoke service via 14 exchanges and data centres in major cities north of the border.

It recently became an authorised provider as part of the government’s SuperConnected Cities voucher scheme

(also see metro networks feature, June issue), and says UK businesses have so far ordered more than 500 circuits since it launched *Fluency* in March 2013. ■
Timico’s 10Gb pipe for Manchester – p2

Salesforce.com builds Euro DCs

Salesforce.com has named Dutch-based cloud services and carrier-neutral colo specialist Interxion as its partner to build its next European data centre in France.

The CRM platform provider plans to open three European data centres to support what it says is a growing customer base on the continent.

NTT Europe – the global arm of Japan’s Nippon Telegraph and Telephone Group – announced last year that it had been contracted to build the first centre in the UK. A salesforce.com spokesperson confirmed this is due to open in October, but declined to reveal its location or size.

Centres in France and Germany will follow in 2015, and it’s claimed all three will be powered by 100 per cent renewable energy sources.

Salesforce.com regards France as an important market in its global strategy, and earlier this year it announced plans to increase its investments in the country.

In addition to the new data centre, the firm recently unveiled its new French headquarters in Paris. It says this will house the industry’s first ‘Digital Transformation Hub’, a dedicated space to foster innovation and collaboration between salesforce.com’s ecosystem of customers, partners, developers and employees.

“The innovative new salesforce.com Digital Transformation Hub in Paris will deliver an interactive, hands-on experience that will bring the *Salesforce1* platform to life – from smartphones and wearable devices to connected toothbrushes and cars,” claims the company. ■

PAESSLER
the network monitoring company

**PRTG monitors your network...
and EVERYTHING else!**



Win a FREE network analysis!

Make your network better with proactive network monitoring. See page 4 for more details.

**EXCLUSIVE TO
NETWORKING+
READERS**

Timico upgrades MPLS network and includes 10Gb pipe for enterprise users in Manchester

Timico says it has significantly enhanced its core network with a new diversely-routed 10Gb pipe into Manchester.

According to the enterprise ISP, hosting and communications service provider, Manchester is now regarded as the UK's 'second city' thanks to significant investment, economic stability, and the arrival of big name corporations such as the BBC.

Andrew Fox, the company's director of managed networks and connectivity, says Timico previously relied on providing circuits in and out of London. "But with MaNAP as well as LONAP access now on our network, customers based in the north west can take advantage of their circuits being backhauled into Manchester rather than London, reducing their costs and providing a more diverse choice of network carrier options."

Fox says that businesses in the region now have the ability to terminate circuits onto the new host link, connecting directly into the Timico core and taking advantage of cost-effective Ethernet circuits.

"The new 10Gb host link provides customers with the option of geographically diverse Direct Internet Access circuits (DIA) as well as incorporating a greater level of resiliency into their private WAN."



Timico says it's invested more than £5m into its purpose-built data centre in Newark. The facility offers customers a range of flexible hosting solutions integrated into a national MPLS network.

The new local connection is expected to go live in September. Timico says its network will offer customers anything from broadband services through to a 10Gb circuit, all provided via Tier 1 carriers that include BT, Colt, TalkTalk Business and Virgin.

The company says this latest upgrade is part of a wider plan to expand its national network, including the addition

of further local PoPs to complement the on-net locations already available across southern England. Its growth strategy also includes the development of a core Metro NODE network, targeting smaller cities across the UK such as Nottingham, Lincoln and York.

The firm adds that it is investing a "six-figure sum" into upgrading the network but declined to reveal an exact figure. ■

DUCL picks up county network contracts

In two separate deals, Daisy Updata Communications (DUCL) has been awarded multi-year PSN contracts by Kent and Bedfordshire county councils.

The Kent County Council deal will run for six years. It will connect more than 1,350 premises with broadband, enabling internet access to some 370,000 users in local government offices, fire stations, schools, colleges, universities, libraries, health and other public sector locations.

Kent County Council cabinet member for corporate and democratic services Gary Cooke says: "The KPSN has been hugely successful in improving Kent's communications. The partnership has enabled multiple networks within the region to combine into a single network, not only reducing costs but facilitating shared services."

The Central Bedfordshire Council (CBC) contract will run for nine years, connecting more than 183 council-owned sites and schools.

Its network will also link up with Essex County Council's next-generation PSN, giving CBC the option to access services available to Essex NGN members. The Essex network, which DUCL has run since 2012, provides IT network infrastructure and associated telephony services to around 200,000 users across the county.

DUCL is a joint venture between the Daisy Group and Updata Infrastructure, a subsidiary of Capita IT Services. ■

IT staff shortages drive up pay

Shortages of qualified IT staff are driving up pay rates for permanent and temporary/contract workers, according to KMPG's monthly *Report on Jobs* bulletin published in early September.

As a category, IT and Computing shifted up a place into third behind engineering and healthcare workers in terms of demand for permanent staff. Among contractors, IT staff ranked eighth, down from fourth, but demand was still higher than a year ago.

The report shows demand for permanent IT staff started rising in mid-2012. Firms are particularly looking for skills in business intelligence, Java, .Net, SQL, PHP, programming and project management.

Staff availability for permanent and temporary jobs continued to shrink but at a slightly slower rate. "The rate of decline remained considerable, despite easing to the slowest in three months. More than half

of panellists signalled a fall in permanent staff availability, compared with just seven per cent that indicated a rise," says KPMG.

The average starting salaries for permanent workers continued to rise in August faster than rates for temporary workers. KPMG says the rate of growth is still strong, despite easing slightly for the second month running following June's series-record high. Around a third of panellists reported an increase in salaries during the latest survey period, compared with less than four per cent that noted a decline. Salaries rose everywhere, led by the South.

Hourly rates for temps rose faster in August than in July, due to robust demand for short-term staff. The North registered the sharpest rise in temp pay rates during August, followed by the Midlands.

More women needed in IT and engineering – *Network Knowledge*, p15

Delancey outsources entire IT

Property management firm Delancey Real Estate Asset Management has outsourced its entire IT infrastructure for the next five years to Advanced 365.

The systems integrator will initially provide a round-the-clock managed IT services desk and host Delancey's business critical systems in a dedicated data centre.

This will be followed by the migration of key systems to the cloud which will be underpinned by Microsoft *Lync* for unified communications, the upgrade of Delancey's *Dynamics CRM* system, and the development of a comprehensive business intelligence capability.

Advanced won the contract in competition with six IT managed services suppliers.

Andrew Summerfield, Delancey operations manager, says: "[Advanced's] ability to map technical solutions to our business needs as we evolve will be critical to us. That we will be supported by a single organisation capable of meeting all of our needs is important to us, as it means we will not suffer the inefficiencies arising from working with multiple IT companies on each project."

Summerfield says the entire Delancey team will be able to access the systems they need at any time. "Uninterrupted delivery of services is essential and the fact that an Advanced engineer will be working on-site five days per week, fully supported by the remote service desk, will provide Delancey with peace of mind." ■

Come and join us at Stand D4 **IPEXPO EUROPE**
8-9 October 2014 ExCeL London

Gain Visibility and Troubleshoot Your Network

with **WildPackets**

10G/40G and Beyond • WLAN Analysis
VoIP and Video • Virtual Networks

Contact: Riaz Khan
Director, UKI & EMEA Sales
WildPackets Inc
riaz.khan@wildpackets.com
or visit our website <http://www.wildpackets.com>

SITE promises PUE of 1.19 at NHS data centre

The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust has awarded Secure IT Environments (SITE) the contract to build its new data centre. The value of the deal has not been disclosed.

The trust's existing data centres were developed from original office space. But SITE says the rooms had met maximum capacity, used cooling that was designed for an office environment, and had no physical protection from external threats such as fire, smoke or ingress of water.

The Bedfordshire-based company will build a modular facility external to the main building which will release valuable floor space within the hospital. It says planning has been applied for and that it expects to start works in October 2014 with

a 12-week installation period. When completed, SITE says the new data centre will have a footprint of 80m² and provide total protection from fire, flood, unauthorised access, theft, acrid gases, etc.

In accordance with the NHS trust's commitment to energy efficiency, the data centre has been designed to deliver the best possible PUE ratio. SITE projects director Chris Wellfair says it will have a rating of 1.19 thanks in part to the deployment of new and innovative energy efficient inverter air conditioning systems.

"[This] is very comparable with a free cooling system but without the cost penalty of having water present within the data centre. Using EC technology with efficiency of over 90 per cent creates energy savings of up to 45 per cent. This is achieved by the systems increasing/decreasing as the heat load dictates."

Wellfair adds that the air conditioning has been designed in 2N format, and that the server cabinets incorporate a cold aisle containment system. ■



SITE project director Chris Wellfair says the new data centre will use innovative energy efficient inverter air conditioning systems.

CentriLogic launches DRaaS

CentriLogic has teamed up with Quorum to offer a Data Recovery as a Service (DRaaS) that aims to help SMEs simplify business continuity planning while reducing ongoing cost.

The hosting specialist plans to offer a complete end-to-end DRaaS using a range of scalable appliances to maintain up-to-date, ready-to-run VM clones of on-premise systems. It will deploy the Quorum *onQ* appliance to each client site. This will replicate server images and data to dedicated and individually maintained secondary appliances located within CentriLogic's Bracknell data centre.

The firm says recovering accidentally deleted or corrupted files uses a simple self-service interface, while recovering a

failed server using the local Quorum appliance typically takes less than five minutes. In extreme instances, it claims a customer can begin a full disaster recovery escalation that can restore an entire IT environment in under one hour.

According to CentriLogic, Quorum DRaaS is offered under a simple pricing model based on application server demand, and uses a range of different appliances that can run multiple virtual backup servers.

Nigel Offley, CentriLogic's EMEA VP, says: "We have discussed the new service with several existing customers. In one recent quote, providing a complete DRaaS solution for a 20 server installation costs less than employing an IT professional for two days a week." ■

Cheshire Police force joins PSN

Cheshire Constabulary aims to save £117,000 per year by joining the Cheshire and Merseyside PSN.

In a five-year deal worth £2.8m, the force will link up with a WAN that already provides services to Cheshire East Council, Cheshire West and Chester Council, as well as local schools. The network is fully

managed by Udata and provides high-speed connections to more than 500 public sector buildings across the area.

Cheshire police and crime commissioner John Dwyer says joining the PSN will help provide a more streamlined and flexible way of working for the constabulary and its partner



THE WORLD ACCORDING TO...

Peter Dennis, product manager for comms, Megger Instruments

Vectored DSL: is it just a pipe dream?

Many thought that copper wire technology within the telecoms industry had finally run its course, with the latest VDSL2 technology extending its use as far as could possibly be imagined.

Proposals for Vectored DSL were first seen in the American National Standard Institute (ANSI) DSM project in 2001. These identified three tiers of crosstalk noise control methodology (Vectored DSL being tier three) for copper loop management.

This recommendation (ITU-T G.993.5) encouraged manufacturers to invest in R&D to provide solutions, and now we have a number of manufacturers vying for position in this emerging market. Herein lies the problem: with each manufacturer taking a different approach, we have ended up with test equipment that is not necessarily compatible with all chipsets.

Fortunately for the industry, chipset makers now seem to be adopting an unofficial industry standard for this functionality, thereby ensuring excellent compatibility with other chipsets.

Vectored DSL employs line signal coordination and noise cancellation to reduce crosstalk levels and improve line performance. The technology concentrates predominantly on FEXT removal, mitigating the noise and improving the SNR. This allows carriage of more bits with less data

dropped, and therefore increases the line's data rate capability, theoretically enabling DSL services approaching fibre speed to be run over standard copper paired cables.

Downstream and upstream transmission techniques do differ, but signal processing functions in both that were performed on a line-by-line basis can now be done jointly with other lines in the DSL multiplexer (DSLAM). This means much more efficient data handling which allows better use of the system to be made by management and testing equipment attached to it.

Data rate performance for non-vectored DSL systems can vary dramatically, but the improved maintenance efficiency of the VDSL approach reduces variation, improves performance and widens bandwidth capabilities, making it possible to offer a greater number of users higher connectivity rates.

These are only potential speeds and other factors can have a detrimental effect on the line, including splices, joints, frays, bad earths and inefficient shields.

Warning should also be given here as there are some drawbacks with this new technology. Using a non-vectored test instrument on a vectored system could have a detrimental effect and can cause the system to crash. The use of a VDSL test instrument is essential if the installed network has VDSL switch and routing gear.

EDITORIAL:

Editorial director: Rahiel Nasir
rahiehn@kadiumpublishing.com

Deputy editor: Ian Grant
iang@kadiumpublishing.com

Designer: Alan McClenaghan
alanm@kadiumpublishing.com

ADVERTISING & PRODUCTION:

Sales executive: Andy London
andrewl@kadiumpublishing.com

Production: Suzanne Thomas
suzannet@kadiumpublishing.com

Sales apprentice: Elisha Gill
elishag@kadiumpublishing.com

Publishing director:

Kathy Moynihan
kathym@kadiumpublishing.com

networking is published monthly by: Kadium Limited, Brassey House, New Zealand Avenue, Walton-on-Thames, Surrey, KT12 1QD, United Kingdom.
Tel: +44 (0) 1932 886 537
Fax: +44 (0) 1932 886 539
www.networkingplus.co.uk

Annual subscription: £80 (UK); £95 (Europe), £100 (USA and the RoW) airmail. Cost per single copy is £8.25.

Printed in England by Williams Press.
© 2014. All rights reserved.

The contents of the magazine may not be

reproduced in part or whole, or stored in electronic form, without the prior written consent of the publishers. The views expressed in this magazine are not necessarily those shared by the editor or the publishers.



ABC audited circulation:
19,679
1 Jul 2011 –
30 Jun 2012

No-one likes a know-it-all ...but how about a does-it-all ?



DrayTek's Vigor 2860 Series - The ultimate xDSL router/firewall

- Professional-class router/firewall
- Ideal for HQ, branch or teleworker
- ADSL2+, VDSL, Ethernet, cable, 3G
- Triple load-balancing & failover
- VPN Tunnelling (SSL & IPSec)
- IPv4 and IPv6 dual-stack
- 3G/4G (Cellular) modem support
- Robust firewall & content filtering
- QoS, VLANs and multi-subnets
- Comprehensive wireless support
- 6-Port Gigabit Switch
- Rack/cabinet mountable

DrayTek

Visit the web site for the complete range

www.draytek.co.uk

Broadband nightmare for small firms

Despite the fact that 45 per cent of SMEs in the Greater London area are based in central London boroughs, they are often subject to the slowest broadband speeds. That's just one of the findings from a recently published report by the Centre for Economics and Business Research (CEBR). It says the problem is worst in the City where average speeds are just 11.9Mbps. This is compared to the capital's average of 20.5Mbps. But the CEBR adds that out of these businesses, just six per cent have access to superfast broadband. The report also highlights that the SMEs are wasting £37m a year on increasingly redundant landlines – 62 per cent said they were confident that they could operate effectively without them. ■

Talk about Big Data

Analytics and Big Data Congress 2014 promises to offer a unique networking opportunity to discuss how enterprises and organisations can efficiently build and integrate Big Data analytics into their decision making processes. Among some of the key topics for this year's forum are: best in class methodologies to institutionalise Big Data analytics in an organisation; how to add advanced technologies such as the Internet of Things to the IT strategy and how to monetise them; and developing and retaining hard-to-find and talented employees. The line-up of speakers includes: Dan Senter, reporting centre of excellence manager, National Grid; Simon Griffiths, business intelligence manager, BBC; Michael Weichert, central analytics, Vodafone; and others. The event takes place on 2-3 December at the Kensington Close Hotel, London. ■

Node4 keeps it cool with Rittal's help

Node4 is said to have "dramatically" lowered PUE at its Northampton data centre. Working with Rittal, it maximised floor space using CoolWall technology, and also deployed cold aisle containment, the vendor's TS IT racks, and managed PDUs. Designed to dramatically reduce PUE and improve the overall efficiency of the data centre, Rittal claims its system offers a further benefit of separate fans for ease of maintenance. It adds that CoolWall was selected over traditional CRAC-based systems as the larger coils increased cooling capacity whilst driving down running costs at elevated temperatures. ■

Cambridge medical school finds cure for network illnesses

Cambridge University's School of Clinical Medicine (SCM) will use Ipswitch's *WhatsUp Gold* to monitor its core infrastructure, environmental conditions in three server rooms, and the connected devices of 2,500 staff.

The school currently has several bespoke systems that monitor its internal systems/network but lacks a centrally monitored solution. "Having a number of separate systems means delay in receiving alerts or complications in getting new monitors/alerts

installed and working as one," says core infrastructure manager Stephen Hoensch.

SCM also wanted a scalable solution. It is one of six schools based at the Cambridge campus and is linked to Addenbrooke's teaching hospital. It is incorporating many remote sites, and future plans to join with other schools could result in a network that's more than double the current size.

Hoensch aims to implement *WhatsUp Gold* on 300 devices by the end of the summer. Once fully installed, system alerts

will mean he is able to fix many network problems before any users are affected. This includes protecting the servers from physical damage – Ipswitch's platform will work with environmental sensors to monitor the server rooms and will send alerts via SMS/email if smoke, heat or flooding is detected, or if security is breached.

Hoensch will also be able to quickly identify rogue devices or any users abusing the network, and monitor in detail both security and bandwidth. ■

Social workers in Notts no longer tied-up by paperwork

Nottinghamshire County Council (NCC) claims it's helping staff achieve more after implementing a mobile working solution across its frontline social work team.

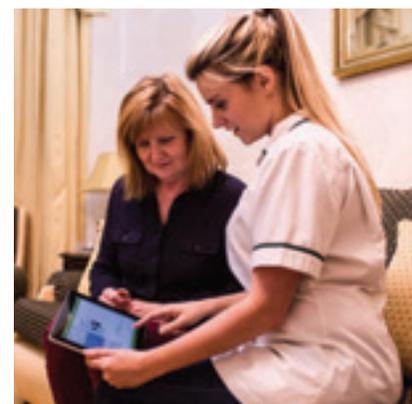
Using TotalMobile's productivity software, workers can now complete assessments and case notes directly on their tablets without the need to report back to the office after each visit. As a result, the team can spend more time with the people that actually need their help.

Ivor Nicholson, NCC's ICT service director, says the council is always looking for technologies to make the job of its social workers easier. "With TotalMobile they have

all the case information at their fingertips and can connect to our back end systems easily, quickly and, most importantly, very securely. It's been a massive time saver and we are using less paper."

More than 75 social workers are already equipped for mobile working using TotalMobile, both online and offline, and there are plans to roll out the platform to up to 2,000 other users over the next 18 months.

The council had previously tried to implement mobile working solutions but had problems with the poor connectivity in some parts of Nottinghamshire. TotalMobile has been designed to integrate into any back



TotalMobile provides mobile working solutions to a range of healthcare, government and private sector customers throughout the UK and Ireland.

office system and runs as a native app on any laptop, tablet or smartphone. ■

Taking control of BYOD via controller-less WLAN

London-based property advisor Knight Frank will use Aerohive's controller-less WLAN infrastructure across its 330 offices in Europe and Asia Pacific.

Knight Frank found that its staff were increasingly using personal tablets for work and that *ad hoc* Wi-Fi was being deployed by branch teams. As a result, the company decided to standardise its approach to mobile IT for boosting customer engagement and agent productivity internationally.

Its IT team designed a global mobility strategy that was spearheaded by a corporate *iPad* rollout to

12,500 employees. It then opted for Aerohive's controller-less Wi-Fi architecture because of its scalability and resilience in a large-scale deployment.

The platform's cloud-based system allows the team to centrally manage the network and also helps to keep it secure.

They can quickly create profiles per user and per device, and the 'zero touch' deployment model also

means new offices can be rapidly brought onto the global network with little or minimal local IT resource.

Aerohive claims the system became fully operational for Knight Frank in Europe in just four months. The firm's agents can now walk into any office and use their company-issued device *iPads* on the corporate network via a single login, and without needing to reconfigure any settings. ■



Aerohive's WLAN architecture includes its HiveManager Online cloud-based management system. This enables Knight Frank's IT team to create profiles per user and per device, all from a central location.

PAESSLER
the network monitoring company

Why Network Monitoring?

Continuous **monitoring** enables you to find any problems in your network **before** they become business critical.

150,000 sysadmins use Paessler's PRTG Network Monitor to make their networks faster, more responsive, and more reliable.

Install **PRTG** today and check if all parts of your IT infrastructure are running as they should.

FREE TRIAL DOWNLOAD >>
<https://shop.paessler.com/trial/prtg/989c5e>

PRTG NETWORK MONITOR

PAESSLER + ada

help you to optimise your IT, reduce costs and most of all provide peace of mind.

Enter today and win a **FREE network analysis** by ADA Networks:

www.networkingplus.co.uk/registration-form

All Networkings readers are eligible to enter the draw for a network analysis and consultation with the network monitoring expert from ADA Networks. To enter the Paessler draw, complete the registration form online at www.networkingplus.co.uk ensuring that you tick the Paessler offer box. Please note this is restricted to UK-based readers aged 18 years or above who register or re-register to receive Networkings before 3rd October 2014.



Can a move spark a **transformation?** See it happen with System x.

You've probably heard that IBM® and Lenovo have entered into a definitive agreement where Lenovo plans to acquire the IBM System x® server business¹. This is big news, so it is natural for clients to have a few concerns. This letter from all of us on the System x team is to assure you, our clients, that this strategic collaboration is a benefit for the industry and especially for you.

Perfect Collaboration

Both IBM and Lenovo are dedicated to a larger vision for x86 systems. IBM has long been a leader in client focused innovation of System x servers and solutions, featuring Intel® Xeon® processors. Lenovo is committed to x86 computing and has a proven record of success, as evidenced by their #1 share position in PCs. By leveraging their strengths in scalability, operational efficiency and a broad channel presence, Lenovo will be able to ensure uninterrupted delivery of the innovative System x servers and solutions that IBM offers today. This will create the winning combination to make System x a leader in the x86 segment.

Working for you. Always.

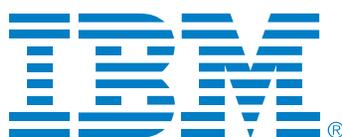
Our respective commitments mean you can continue to rely on getting the performance, reliability, and return on investment you expect for your IT infrastructure. Our team has always been dedicated to delivering exemplary levels of service. We are happy to inform you that IBM will continue to service the System x installed base for an extended period after the transaction closes, so you experience the same quality and accountability that you have come to trust over the years. What's more, we – the 7500 members of the IBM team that delivers System x servers – will continue to do the same, as we will also move to Lenovo.

At IBM, we have always been proud of our ability and commitment to meet the needs of our clients. This announcement opens new avenues for us to expand and improve on this tradition.

Please do visit www.ibm.com/uk/futureofx to learn more about this development.

Sincerely,

The entire System x Team



¹The closing of this deal is subject to regulatory review.

IBM, the IBM logo and System x are registered trademarks of International Business Machines Corporation registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. For a current list of IBM trademarks, see www.ibm.com/legal/copytrade.shtml. Intel, the Intel logo, Xeon and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries. ©2014 IBM Corporation. All rights reserved.

Cloudy in Kent with a silver lining worth millions

East Kent Services (EKS) first step in cloud-based computing is already on track to save millions over the next few years.

EKS supplies IT services to 1,500 IT users at Canterbury, Dover and Thanet district councils. It has deployed a Citrix-based virtual desktop solution in an effort to foster workplace transformation, greater collaboration, reduce operational costs, and improve organisational resilience.

Citrix advisor Thintech has implemented the laptop-based system which is built on *XenApp* and *NetScaler*. It enables users to

access all the systems required from a single desktop login. For example, the contact centre previously used three different CRM systems, each on a separate domain. These are now centralised and accessed via one point of contact.

"It's important for us that IT is seen as an enabler, not a barrier, to transforming ways of working and improving customer service," says Timo Bayford, EKS' ICT technical systems manager. "The system looks and feels exactly like a familiar desktop. We knew once it was rolled out,

it would be 'just there', ready to use and with no surprises."

By dissolving the concept of dedicated desks, EKS has created natural areas for people to work in and allowed users to work from anywhere.

As a result, Bayford says that EKS is seeing more cross-group collaboration: "Project groups can come together and all camp down in the same spot. We've even provided Wi-Fi in the canteen so that people can use it throughout the day to work in the ways they wish."

The councils have also been able to rationalise the space they require and to lease spare capacity to other public sector bodies such as local NHS commissioning groups.

Across all EKS' services, the VDI project is on track to deliver £2.7m of savings over four years – that's 42 per cent more than originally expected, says Bayford.

EKS plans to create more flexible working opportunities with the addition of IP telephony and the extension of wireless networking across its offices. It is also evaluating *Citrix Sharefile* for file-sharing. ■

Counting toys now child's play?

Toy retailer The Entertainer has chosen Zetes' mobile in-store stock auditing system to help it avoid inventory 'blind zones'.

The Entertainer operates 89 high street toy stores in the UK. Each year, the retailer takes a physical stock count to ensure its assets are accurately recorded. It outsources this to a third-party specialist which uses *ZetesAthena* running on a mobile device to complete stock counts in up to three different stores per day over three months.

By integrating the *ZetesAthena* in-store management cloud-based architecture with the main ERP system, execs at The Entertainer now have immediate real-time access to stock count results from any site.

"Using *ZetesAthena* we have an efficient solution for stock auditing based on the latest cloud technology which means we have full visibility of the counting process from a decentralised location," says Stuart

Molyneux, head of risk at the retailer. "In addition, because *ZetesAthena* is also a full in-store management solution, we can potentially scale our use of the software to manage other retail processes in the future, ensuring we have an accurate picture of stock availability and visibility at all times."

Zetes says *Athena* is a cloud-based in-store mobile management solution to help multi-channel retailers optimise stock and pricing processes centrally and consistently in individual stores. It aims to streamline time-consuming inventory-related tasks and provide real-time transparency of stock availability within the store.

Powered by the MCL cloud-based mobile enterprise application platform for supply chain operations, the system is said to enable quick deployment and management of software applications and hardware with minimal ongoing management. ■

IaaS paves way for car dealer acceleration

Car dealer Citygate has outsourced its entire IT network. Voice and data connectivity to all of the company's sites is now delivered via Node4's high-speed, secure and resilient MPLS network.

Previously, Citygate used dedicated onsite infrastructure and phone systems at each of its nine sites. This was hard to manage, expensive to run, and network connections between the various branches were limited and unreliable.

Each site now has higher capacity connections, dramatically improving network speeds for the whole group. Telephony systems have been replaced by a hosted switch at Node4's Northampton data centre, and Citygate's email server and all other critical equipment has also been relocated.

All the sites benefit from a centralised cloud-based infrastructure, and Node4 says the system's central management has meant fewer glitches and less downtime.

It's claimed that by outsourcing its infrastructure and migrating to the cloud, Citygate was able to provide IT and communications services at two new sites within 24 hours. Peter Dickey, the firm's



Citygate previously used onsite infrastructure at each of its nine sites, which was expensive and hard to manage.

commercial director, adds that shifting the company's telephony to a centrally-hosted VoIP system also saved money instantly.

"Having the system centrally managed by Node4 frees us up to focus on what we do best," says Dickey. "Not only that but we have a fantastic foundation to explore other technologies that could improve our operation, and we know the infrastructure is capable of scaling up to accommodate future growth."

Citygate is now looking at a fully cloud-based solution for its email and business applications to further enhance its IT service delivery and flexibility. ■

THE WIRELESS GENERATION IS COMING FOR YOUR NETWORK.
And they won't accept slow for an answer.

Be ready with the full power of Meru 802.11ac

Unplugged. Unlimited. Uninterrupted.

We're ready now. Are you? Visit www.zycko.com/80211ac



zycko International distributor of innovative IT solutions
T: +44 (0)1285 868 500

Alternative finance firm hits £70m with cloud call centre

Finance firm Platform Black claims to have boosted trading volumes to more than £70m in less than two years after transforming its sales operation with cloud-based contact centre technology from NewVoiceMedia.

ContactWorld integrates with Salesforce to deliver real-time dashboards and historical data. According to the vendor, this provides visibility and tracking of individual activities as call recording gives a meaningful insight into performance.

The system allows each Platform Black customer to call their designated account manager directly. With 'click-to-call', staff can also dial directly from a calling list in Salesforce, simplifying the process and reducing the chance of misdialling. They can connect with customers and prospects from any location, including via Salesforce's mobile app.

NewVoiceMedia says automatic call logging ensures better call reporting, training and quality management. Customer records are updated automatically, giving a complete history of interactions as well as a clear audit trail. It adds that follow-up activities can be easily created so that no lead is lost.

Platform Black CMO Louise Beaumont says personalised service is crucial.



"With 10,000 inbound calls a year and 25,000 outbound, ensuring service is as personalised and tailored as possible is crucial," says Platform Black's chief sales and marketing officer Louise Beaumont. "*ContactWorld* offers us complete visibility of all customer interactions, provides fantastic reporting, and we're able to communicate in a way that's appropriate to each customer or prospect."

Founded in 2012, Platform Black specialises in invoice trading and supply chain finance for businesses with turnovers ranging from £500k to over £1bn. As banks reduce funding for working capital to meet regulatory requirements such as Basel 2, the company says it is already helping its customers fill the £180bn shortfall that is predicted to be in place by 2017. ■

Now, optimise cooling efficiency from rack to row to room to building.



Local user terminal places sophisticated temperature and humidity controls at your fingertips

Flexible:

The smaller footprint and ability to place units side by side make the units perfect for expansions, retrofits (as drop-in replacements), or new builds.

Energy efficient:

Many features were engineered for higher efficiency – EC fans and large surface area coils are standard to ensure you get the highest efficiency.

Easy to service:

Units can be serviced from the front (instead of the side) via internal service panels so the doors can open while the unit is still running thereby preserving uptime during servicing.

Announcing the addition of Uniflair room cooling and Aquaflair chillers to our efficient data centre cooling portfolio

Data centres always have been mission-critical environments. Businesses worldwide depend on their uptime and efficiency, and uptime and efficiency depend on the right cooling deployment. Today, Schneider Electric™ can deliver the right solution quickly, easily, and cost-effectively.

Cooling solutions for every application

Complementing its innovative InRow™ line and other cooling innovations, Schneider Electric now offers a comprehensive cooling portfolio. It includes building-level options, including the Uniflair™ range of energy-efficient air conditioning equipment with economiser modes and Aquaflair™ chillers, to keep today's fully integrated data centres operating at optimal levels.

Faster and easier deployment, installation, and maintenance

Schneider Electric is the only company to deliver its cooling products, parts, and spares via a global supply chain, thereby making deployment, installation, and maintenance faster and easier. What's more, our efficient cooling solutions are customisable, meeting the specs of even the most complex installations. Each deployment is fast, reliable, and energy efficient, and with its integrated end-to-end software management, ensures your data centre needs can keep up with your business.

Business-wise, Future-driven.™



Tap the cost savings of economiser modes.

Learn how in our **FREE** expert white paper!

Visit www.SEreply.com Key Code 49315p

Our comprehensive portfolio of cooling solutions, all of which are fully managed and available through a global supply chain, includes:



Struxureware™ for Data Centres software gives predictive analysis and cooling visibility



EcoBreeze™ Cooling Module with economiser modes maximises free cooling



Containment solutions for hot and cold aisle enable predictable, efficient cooling



InRow cooling units support close-coupled, efficient cooling



Data Centre Facility Cooling Modules deploy quickly



The communication of science

The science and technology sector requires a broad range of solutions to meet its varied networking needs, whether on land, at sea, or in the air.

Aurora lights the way for optical research

While Britain invented optical fibre networking in the mid-1980s, it lost the lead in optical research during the Thatcher era. It's now back on track thanks to Aurora, the dark fibre experimental network that connects researchers at Bristol, Cambridge, Southampton and University College London (UCL) via a central node in the capital.

Aurora is physically separate from Janet – the dedicated fibre network that links UK schools, universities and research labs nationally and internationally. Researchers can install their own equipment on Aurora to 'light' its fibres. The separate infrastructure means they have more freedom to test, break and reconfigure connections without disrupting normal internet access, and at much higher capacities than commercial networks.

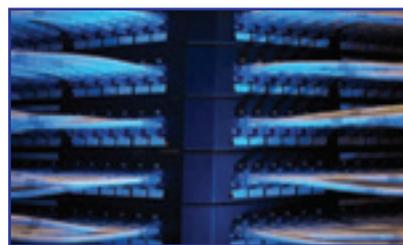
"The result is an ideal 'test bed' for photonics research to support development of the future internet," says Jeremy Sharp, Janet's head of strategic technologies.

For example, access to Aurora helped UCL researchers produce two of the most downloaded IEEE papers this year. One showed how a new optical spectrally-efficient frequency division multiplexing

(O-SEFDM) system operating at a lower modulation could add 25 per cent more bandwidth than present optical-orthogonal frequency division multiplexing. The other showed that congestion-aware routing in a non-linear elastic optical network could double network capacity compared to using shortest-path routing, and quintuple it if it was combined with a 6.25GHz resolution flexgrid.

Aurora's second phase, Aurora2, goes live in September and extends the fibre network to Essex and Bristol universities. It is funded by the UK Engineering and Physical Sciences Research Council (EPSRC) and Janet, with help from the UK e-Infrastructure programme. This guarantees funding for the fibre infrastructure and edge equipment for the next five years.

Research groups at other sites will also be able to make use of Aurora2, either by co-locating equipment in laboratories at



one of the directly-connected sites, or by special access via other Janet network services such as VPNs or lightpaths.

Sharp says he is "hugely" excited by Aurora's potential: "As well as supporting research on the future core optical network, Aurora2 will enable testing with experimental metro networks such as the Gigabit Bristol R&D network, which aims to create a city-scale digital infrastructure in Bristol, and wireless backhaul networks like 5G."

He adds there is serious commercial interest driving all the research, with the UK photonics and electronics markets worth £10bn and £29bn a year respectively.

Floods precipitate weather network upgrade

Following last winter's floods, the Met Office is halfway through an upgrade to the network that links its 15 weather radar stations to its Exeter HQ. The upgrade, which includes advanced weather radar and software, aims to improve forecasting for the next 15 to 20 years.

The Met Office Remote Site Network is a private WAN and has now been outsourced to BT which is upgrading the links to each site to 2Mbps symmetric connections. The circuits are provided by Openreach's MPLS infrastructure and managed as part of BT's *Convergent Solutions*. They use the firm's *Connect IP Clear* system which provides symmetric bandwidth up and downstream.

The remoteness of the sites and the need for 2Mbps circuits meant the telco had to replace copper cable with fibre or microwave. The Met Office says its radar sites are less suited to ADSL (asymmetric) data transfer as these circuits provide a lower and more restricted upstream data path.

It adds that the new 2Mbps infrastructure provides sufficient bandwidth for the radar data transfer and a "reasonable" data rate with its new enhanced product data set.

The Met Office's current network consists of 15 operational weather radars across the UK such as the station at Great Dun Fell in Cumbria (pictured below). These provide real-time information to help monitor and forecast heavy rainfall to issue flood warnings.

Many of the transmitters were more than 20 years old and suffered recurring age-related failures. The new dual polarisation radar and new *Cyclops* software has given greater reliability and allows more flexibility for radar R&D activities in the future.

Cyclops is said to provide better filtering of raw radar data to remove "ground clutter" (echoes) on precipitation rates and accumulation (flooding). The Met Office says this makes it easier to

distinguish precipitation and non-precipitation echoes, identify precipitation type, better correct for attenuation of the radar signal due to very heavy rain or hail, and estimate drop shape. These in turn will improve precipitation estimation.



I spy with my satellite eye: illegal fishing

Maritime and naval authorities will find it much easier to protect international fisheries with help from a new satellite-based system to track illegal fishing activities. It will be used to capture and analyse shipping data, and combine these with vessel information to detect and prosecute unlawful fishing.

The system has been developed by the Satellite Applications Catapult, the Pew Charitable Trusts non-governmental organisation, and satellite data services company exactEarth Europe.

According to Tony Long, director of Pew's Ending Illegal Fishing Project, illegal and unreported fishing accounts for up to 26 million metric tons of fish worth up to \$23.5bn a year. "Every time you buy seafood there is a one-in-five chance that the fish was caught outside the law," he claims.

Many governments use satellite-based technology as part of their fishing vessel monitoring policies. Vessel monitoring systems (VMS) provide location information for fishing boats, and many also carry an automatic identification system (AIS) which is designed for safety at sea. The Catapult product will merge VMS and AIS data with other information. By analysing vessel tracks and overlaying them on protected marine areas, vessel history and licence details, fisheries experts can spot irregular and potentially illegal activity. This will pinpoint the location of suspect ships, and show their name, identification number, fishing license details, history, and more.

"As the product evolves it will become better on its own at recognising certain types of fishing activity – for example, long-line fishing versus seining or trawling," says Long. "But the human element, i.e. informed analytic expertise which at some point must be coupled with a physical inspection of the vessel, will remain necessary to prove illegal activity."

Neither Pew nor the Satellite Applications Catapult will feed information directly to the naval, police or fishing authorities. But the organisations will be able to use it to narrow their search for pirate fishing and focus their resources on suspect vessels.

The Satellite Applications Catapult says the partnership will also support the Global Ocean Commission Mission Ocean initiative to save and restore ocean health.

GST UTP System from HellermannTyton

The New GST Jack from HellermannTyton is a compact high performance UTP RJ45 connector.

The solution includes Category 6A, Category 6 and Category 5e jacks, a range of modular flat and angled panels and a full set of plastic mounting modules.

The full range of 8 panels complements the GST jacks. The panel range comprises flat and angled panels in 1U 24, 1U 48, 2U 48 or 2U 72 ports.

The GST termination tool is a single action crop and crimp tool making it quicker, easier and safer than traditional termination methods.

For the latest product updates and news, please join our mailing list at info@htdata.co.uk

Key Features

- GST Category 6A, Category 6 & Category 5e UTP jacks
- Single action 'crop & crimp' termination tool
- Full range of modular patch panels – flat and angled
- ETL performance verified, UL compliant and component compliant to ANSI/TIA-568-C-2

Better Technology through Innovation

To find out more call +44 (0) 1604 707420 or visit www.htdata.co.uk

Follow us on [in](#) [t](#) [@HTData](#)

**BEST AVAILABILITY, HIGHEST EFFICIENCY
AND UNBEATABLE SPACE UTILISATION
...BULLSEYE**

THAT'S THE CRITICAL DIFFERENCE.

Emerson Network Power's next generation rack PDU delivers the best availability and lowest power consumption, saving you thousands annually.

Our new intelligent rack PDU is designed to optimise data centre energy and capacity management, delivering the industry's best availability by uniquely tolerating temperatures as high as 60°C and consuming 75% less energy than other leading vendor PDUs. It is also the most compact PDU on the market and seamlessly integrates with DCIM software. What more could you aim for?



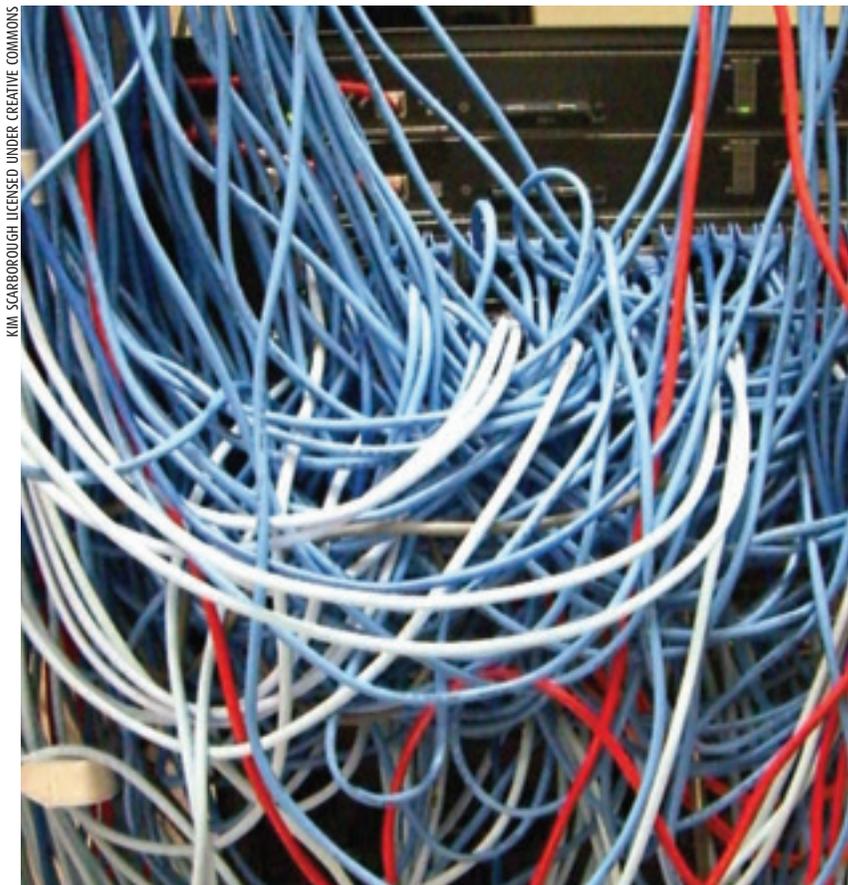
Emerson Network Power
United Kingdom
T +44 (023) 8061 0311
UK.Enquiries@Emerson.com

See the facts for yourself at:
EmersonNetworkPower.eu/RackPDUs



Emerson. Consider it Solved., Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2014 Emerson Electric Co. All rights reserved.

EMERSON. CONSIDER IT SOLVED.™



Networks like the DIY one on the left may work perfectly well, but which one would you prefer to troubleshoot when a network fault occurs?

The choice is yours

Enterprise network managers have never had so much choice when it comes to fulfilling their role. IAN GRANT looks at the pros and cons of outsourcing IT networks and the Darwinian evolution of the marketplace.

The issues for and against outsourcing are well known: amortisable capex becomes pay-as-you-go opex; someone takes care of the growing complexity in return for you giving up some operational control; it is more efficient (for many tasks) and so cheaper; you can concentrate on your business rather than be distracted by a non-value-adding activity (unless you see IT as a competitive weapon); you can scale your capabilities smoothly rather than in expensive steps; you gain access to specialist services and skills that are too costly for you alone to justify; and so on.

The question is who can you trust? Are you better off with an in-house operation in which the insider threat is great? Or a good contract with a reputable outsource vendor? The answer to all of that depends on the application.

At some point this must run on physical devices which consume space, time, energy and other resources. Ownership of the assets means direct expenses as well as hidden costs such as skills, compliance, efficiency, and opportunity. These all need to be managed for cost, risk, security and financial return. But it all changes so fast you can barely write off your investment

before the next tech wave is on you. It's no wonder that some firms decide to stick with what they've got until it breaks, while others give the problem to others and sharpen their contracting skills.

Simon Campbell-Whyte, executive director of the Data Centre Alliance, thinks there's a better way: "This is not a game where you can afford not to play. You might be all right for a year or two, but as the technology moves on, you are going to lose your competitive position."

Access to power and to carrier networks have become limiting factors in the data centre (DC) business. Even so, Campbell-

Whyte says the entire DC market has been growing 20-30 per cent a year for the past six years, and expects about one-third devoted to outsourced services by 2016.

A KPMG survey of 490 outsourcing deals worth more than £10bn published late last year confirmed this trend. Some 77 per cent of respondents said they intend to continue or increase their level of outsourcing. "Forty-five per cent claimed they will 'certainly' or 'probably' increase IT outsourcing over the next 12 months, a figure that has more than doubled from 19 per cent, last year," said the firm. It believes that clients have two

5th Anniversary

FLAT FEE
£
8
9
5

TTR

Recruiting your Dream Team?

Contact the UK's Leading Flat Fee Recruitment Specialists.
15 years in Technology Recruitment • 250+ UK-wide customers • All positions, all levels.
Call TTR on 01582 691414, email: enquiries@ttruk.com or visit www.ttruk.com

main motives. Firstly, there's a desire to improve customer service; and secondly, there's a dearth of skills to make it happen.

This fits in with Campbell-Whyte's view. He sees a quickening evolution of the outsourcing sector, with data centre providers developing specialities.

It's already happening. For example, Telehouse has chosen to host network operators; RackSpace is happy to share its machines with third parties; Virtus will share its DC floorspace and make a virtue of the number of carriers that connect to its sites; and Salesforce hosts applications in the cloud – all you need is internet access and a password.

Campbell-Whyte points out that everything turns on the application,



“This is not a game where you can afford not to play. You might be all right for a year or two, but as the technology moves on, you are going to lose your competitive position.”

*Simon Campbell-Whyte,
Executive director,
Data Centre Alliance*

which varies by its need for speed, resilience, security and requirement for specialist skills. This drives the choice of platform and its location. For example, a network for a high frequency trading house will look, feel and behave differently to one designed for a national point of sale network. As a result, vendors are honing their offers according their perception of market needs and their own preferences and capabilities.

According to KPMG, the emerging picture is one of hybrid in-house and outsourced resources where fitness for purpose rules. This is good. In research commissioned by content distribution network Akamai, Forrester found that organisations that leverage hybrid as well as a mix of cloud services which bring differentiated and complementary value are more likely to be highly satisfied.

This suggests that Darwinian specialisation to fit IT ecological niches is working. Instead of user organisations piling all their applications into a glass room and prioritising their job runs, they can now be selective and optimise where and when they run tasks.

Fundamentally, networks are just the means to the end, which is the conversion of data into meaningful content by an application. There is nothing *per se* to say that companies need to build, own and operate their own physical networks or DCs. Indeed, when it comes to telephony, email and even websites, very few do, and then usually only because of security, health and safety or regulatory/compliance issues. Even private networks use the public network infrastructure at some point, hence the growing angst over the public networks' fitness for purpose.

The user's point of view

For user-facing CIOs, the only thing of real interest is the end-to-end performance of the applications. The yardstick is no longer how much latency there is in the network, or jitter, or lost packets, but whether the user had a good experience. Those network performance measures may indicate why the user is happy or unhappy, but they are now diagnostic tools rather than themselves primary

indicators of network quality. In this case, perception has become reality. Users simply don't care about network issues, and arguably many resent being made to care. They just want it all to work.

Developments such as cloud computing, BYOD, and mobile access mask the underlying networks. These retain their basic physical divisions of data centre level, local and wide area networks, and all the issues that surround them. Once users become aware of those issues, they become grit in the smooth passage of their lives.

Even though “we are all IP now”, the differences in data centre, metro, aggregation and core networks at the physical level are material and, thanks to virtualisation technology, getting more complex. Smart CIOs will look at the supply chain that delivers their applications' end-to-end performance, consider the risks and dependencies that exist, and address them in SLAs. That could mean a different supplier at each of the ISO model's seven layers.

Take for example Cegedim Rx, one of the market-leading suppliers of healthcare software to the UK pharmacy market. It uses managed network operator Redcentric to provide the network that allows Cegedim Rx to add managed data backup and 3G failover services to its offer to pharmacies (*see News, Jul/Aug issue*). The software house's sales and marketing director Clive Eckett said Redcentric was chosen in 2009 for its reliable connectivity to N3 – the NHS internal network. “While the early focus was all on taking our network to a new level, we were always aware that we could leverage additional Redcentric managed services to strengthen our own commercial proposition.”

Redcentric is one of 130 companies in the UK that has Ofcom “code powers” or the right to dig up the streets to lay communications cable. But in reality, most of those 130 will buy backhaul from another carrier with capacity in the neighbourhood, and provide only the “last mile” connection. In Cegedim Rx's case this means that the pharmacy owner sits at the top of a minimum five-layer supply chain that includes (in descending order):



“Agreements like this [with Virtus] originate from shared values and we can already see the positive effects it is having through the ability to roadmap not only our growth but facilitation of our customers’.”

*Simon Mewett,
CEO,
C4L*

Cegedim Rx; Redcentric; a wholesale supplier/mobile network operator; and a physical infrastructure supplier.

Amazon considered such a multi-layered supply chain a risk when it launched its 4G-based *Kindle Fire HDX* multimedia e-book. Knowing that the device would drive up demand for data, the company wanted a flawless one-click connection to get its customers buying goods and content as soon as they had powered up. It also wanted to streamline the process and to save costs.

Rittal – The System.

Faster – better – everywhere.

Make IT easy.

RiMatrix S: The first mass-produced data centre.
Simply plug in and it's ready to use.

ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

FRIEDHELM LOH GROUP

Working with Vodafone's enterprise division, Amazon developed a solution that uses a single 4G SIM globally and ships pre-installed in the *Fire HDX*. Once activated, the Vodafone SIM becomes 'local' (subject to network availability). This means users can quickly sign up to local data packages and access top-up services and support. This hugely simplified Amazon's logistics and supply chain, resulting in cost and management savings.

While not all firms are Amazon, the need to provide a good user experience is common to all online businesses.

To forestall those concerns for UK enterprises, hosted cloud provider C4L recently signed a five-year agreement with long-term partner Virtus. C4L has a national 100Mbps MPLS network that connects to more than 100 UK DCs and 300 internationally. It will deploy 36 cabinet pods at each of Virtus' London1 and London2 data centres.

C4L says the two new dedicated pods will deliver up to 36 cabinets at a minimum of 108kW, with the flexibility to increase the density to more than 300kW per pod per year. London1 already has 20 Tier 1 and Tier 2 networks connected to it while London2, which opens this month, will have connections to four Tier 1 operators.

Both centres peer with all the major UK and European IP exchanges. C4L says

this connectivity allows its customers to be up and live instantly, while allowing it to control their positioning in the data centre and cater for their growth. C4L CEO Simon Mewett says: "Agreements like this [with Virtus] originate from shared values and we can already see the positive effects it is having through the ability to roadmap not only our growth but facilitation of our customers'."

Capability was also key to the decision by PVH Corporation, owner of lifestyle brands such as Calvin Klein, Tommy Hilfiger and Speedo, to outsource a new 400-site European network that connects retail outlets in 22 countries. The deal went to MDNX, which now trades under the Easynet brand following its takeover of Easynet late last year. The amalgamation created what Easynet claims is the largest independent networking and hosting integrator in Europe.

The Easynet European network will provide the backbone of the PVH retail network, harmonising the businesses' IT systems, streamlining communication, aiding collaboration, and reducing management complexity across the organisation. It will also allow PVH to execute plans to invest in its supply chain and to roll out new software across the organisation.

Meanwhile, Capita IT Services, which specialises in public sector offerings, is now offering a range of Microsoft

productivity applications in a secure, UK-based environment via the government's G-Cloud 5 framework. The *Capita Productivity Hub* gives public sector users access to tools such as *Outlook*, *Lync*, *SharePoint*, *Word*, *Excel* and *PowerPoint* on premise, in a public or private cloud or a hybrid combination.

Capita IT Services executive director Peter Hands says: "Public sector organisations want the ability to use the cloud delivery model that suits them, but without the headache of managing it. *Capita Productivity Hub* offers applications via a private cloud infrastructure with all data stored in Capita's UK data centres."

A common platform

Socitm, the professional body for those involved in IT and digitally enabled services for the public sector, is exploring a more ambitious target. After rejecting an earlier proposal to have a single web portal for all local government applications as both impractical and possibly illegal, it is examining how sharing a common platform could reduce waste, duplication and inefficiency.

It points to previous shared projects that have been successful. One is *Connect Digitally*, the central government programme to help councils transform schools admissions and free school meals

into digital services with high take-up and online payments. According to Socitm, more than 80 per cent of English schools have adopted the online admissions module, and time spent checking applications for free school meals has dropped from three hours to three minutes.

Another success is the *Planning Portal*, which was established by central government to support local planning authorities and their customers as they shift to paperless planning. According to Socitm, some 60 per cent of planning applications are now received and processed online.

It goes on to say that this is what can be achieved when stakeholders, including private sector systems suppliers, come together. By working closely together, they can identify and agree minimum features and functions for each service, agree standards for data formats and common features, and develop quality tools and products for adaptation by councils and schools.

Clearly there is scope for more such cooperation, and to allow the Public Service Network (PSN) that connects local government agencies to develop into a network of networks, possibly provisioned and run by a specialist operator. Whether it would be possible or even desirable for that to happen, remains to be seen. In all likelihood, any development along those lines will start with the applications. ■

Network management is a shared problem

There is plenty of common ground between enterprise network owners and those who would sell networking as a service, according to Steven Harrison, lead technologist at Exponential-e.

"The really exciting opportunity today is the 'blender effect' of infrastructure as a service along with network. IaaS providers have realised that they are not compelling if they don't include end-to-end connectivity, while pure 'dumb pipe' providers realise they don't have enough to make the most of the



Harrison says owning its own network is the only way Exponential-e can deliver and hand-off native Layer 2 service to its customers.

opportunity. By blending the two together you create a very compelling offering for the market.

"Owning our own network is the only way we can deliver and hand off native Layer 2 service to our customers. Overlays and VPN are unfortunately not an answer when it comes to real-time

services like voice, video or VDI. Operating at Layer 3 over an uncertain underlying fabric just exposes user experience to too much risk.

"Operationally it's more challenging to allow the customer a high degree of self-management, but our ability to hand off native Ethernet means customers can self-manage from the lowest level, and then set the management demarcation with us at any level up that suits them, all on a service-by-service basis.

"For example, they could manage their WAN at Layer 2 while we manage their voice right up to Layer 7, all over the same network.

"Today, our coping mechanism for resource allocation in our own data

centres is good people and careful capacity management. We never oversubscribe or contend to the point a user may notice. Obviously, there's an amount of resource pooling there, but we monitor the concurrent peaks and ensure that they are always well below actual installed capacity.

"The magic wand to do this better is already coming in the form of an integration between various software defined elements. I'm after a software defined data centre that can communicate seamlessly with an SDN across the metro area and a path computational engine across the wide area through some kind of intelligent mediation system."

IT INFRASTRUCTURE SOFTWARE & SERVICES

www.rittal.co.uk

off-the-shelf: test & measurement

Glitch-free networks

Some of the latest test and measurement devices to help you analyse LANs and WANs and ensure they're running smoothly.

Fluke Networks has added new features to its *AirMagnet Survey PRO/Planner* and *AirMagnet WiFi Analyzer PRO* tools to help organisations optimise their migration or co-existence path to the 802.11ac standard.

Survey PRO is a wireless design and site survey solution. Among its new 802.11ac planning capabilities, engineers will now be able to determine the number of APs needed in a network, as well as their location and configuration settings before rolling out any new infrastructure. Fluke says this enables managers to estimate budgets before making investments, solidifies migration strategies, and eases the "potential transition pains".

It adds that installers can also

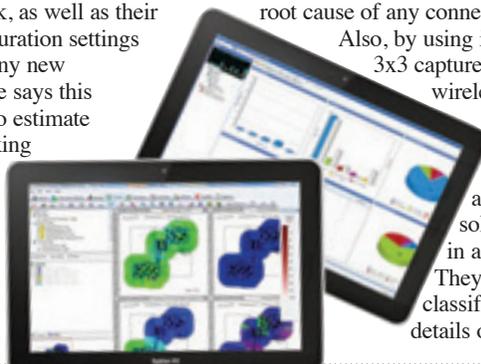
see how they can re-use existing Ethernet and power infrastructure for the new APs, visualise the impact of introducing them in "performance hungry" locations, and then measure and validate true performance delivery instead of relying on estimates.

WiFi Analyzer PRO will help installers to not only predict the capacity readiness of the network for the new influx of .11ac APs and clients, but also to identify the root cause of any connectivity issues.

Also, by using its new 802.11ac

3x3 capture and analysis wireless adapter with *Analyzer PRO*, Fluke says IT teams won't miss any traffic and can solve any problem in a .11ac network.

They can also locate, classify and record details of any threats.

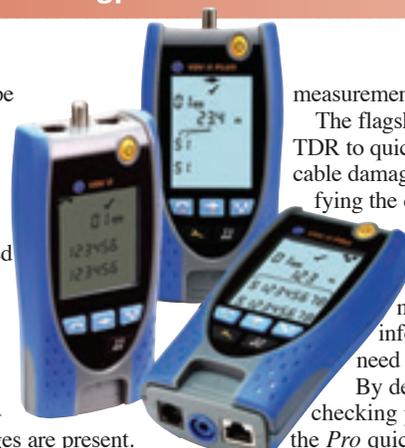


The *VDV II Series* verifiers from **Ideal Industries** can be used to check the integrity of wiring and detect faults in low-voltage copper cables including telephone wiring, LAN (Cat 5 to Cat 7, UTP and STP), and coaxial.

Ideal says the handheld devices identify wiring errors instantly, capturing "comprehensive" details on faults such as opens, shorts, reverses, miswires and split pairs that can slow or take down a network. It says their integrated RJ11/RJ12 (voice),

RJ45 (data) and F-Type coaxial (video) connectors help the user achieve faster testing of most types of low-voltage cables by eliminating the need for separate testers or adapters. It adds that intelligent technology lets the unit know if it has been plugged into an outlet where potentially damaging voltages are present.

All three models in the line-up – the *VDV II* (basic), *VDV II Plus* (advanced) and *VDV II Pro* (professional grade) – provide wiremapping capability. The *VDV II Plus* also offers a larger 2.9-inch display with backlighting, hub blink, cable length



measurement and distance-to-open. The flagship *VDV II Pro* adds a TDR to quickly determine where cable damage is located by identifying the distance to opens and shorts. Ideal says it will also display mission-critical network connectivity information without the need for a PC.

By detecting voltage and checking polarity, the firms adds the *Pro* quickly determines which type of media service is running over the cable, such as ISDN, PBX and PoE, resulting in faster fault diagnosis. Troubleshooting active Ethernet networks is also made easier with in-built network detection that displays network rate and duplex data.

Network Instruments (part of JDSU), says it has doubled the capacity of its *GigaStor Expandable* and 10Gb *Wire Speed* appliances to 96TB of network and application traffic for analysis in a single chassis. With additional units, it claims that the *GigaStor Expandable* scales to more than a petabyte.

The devices store network data for post-event forensic analysis of error conditions and data retention. Using *GigaStor's* analytics, network teams can navigate to the exact moment a problem occurred, view packet-level details around the event, and resolve the issue. Network Instruments says this saves time troubleshooting and eliminates having to recreate the original performance problem.

The firm reckons *Gigastor* represents the first retrospective network analysis appliance to provide complete packet capture in fully-saturated 10Gb networks

and interfacing with 40Gb networks. It says the *Expandable* product line offers in-the-field scalability to meet growing performance monitoring needs on gigabit, 10Gb, and 40Gb links.

GigaStor Expandable capacities begin at 96TB and can be increased in 96TB increments to 288TB. Thereafter, they grow in 288TB amounts to 576TB, 864TB, and more than a petabyte of packet capture storage.

Wire Speed, which is optimised for out-of-box monitoring of saturated 10GbE links, now provides 288TB of storage via three 5U enclosures.



Megger's *NET200* is said to be an all-in-one, easy-to-use network test unit that measures logical network performance and the physical condition of network cables. It's been designed to enable network engineers to install and maintain LANs that use 10Base-T and/or 100Base-TX Ethernet protocol.

The *NET200* provides round-trip time testing to measure network speed under dynamic and static configuration protocols, and IP scanning to show the information on all terminals connected with the local network. It can also evaluate the capability of link connections such as supported network speed (10Base-T or 100Base-TX) and duplexity (half- or full- duplex).

The device provides physical information for the LAN cable under tests such as cable length, fault positions (open or short) and Wiremap (pass/fail). It

features a high-resolution graphic TDR as well as TDX (time-domain crosstalk) so that engineers can locate faulty positions along cables up to 500m in length.

Megger says the TDR and TDX can also be used with other types of cables, such as coaxial for cable TV and HFC networks, as well those for telephony.

The *NET200* is supplied as a kit comprising a complete set of testing cables and adapters, and is claimed to offer one of the largest selection of functions available in its class.



T3 Innovation says *Net Prowler* is a cabling and advanced network tester that can identify, monitor, and correct LAN issues. It can detect 10/100/1000 Base-T, IPV4/IPV6, VLAN, DHCP and more.

The device offers all the features and functions of T3's *Cable Prowler* but adds the capability to identify, monitor, and troubleshoot LAN issues associated with physical layer and link conditions in the network. It can test Cat 3/5e/6/6a Ethernet cable configuration and verifies connectivity while conducting tests for opens, shorts, miswires, split pairs, and reverses.

T3 says the *Net Prowler* supports up to eight testing and ID remotes for network and

telephone cables, and up to 20 network and coax ID-only mapping remotes.

It also includes support for IPv4 and IPv6 protocols, verification of DHCP connectivity and DNS, and TCP/UDP throughput testing. According to the firm, the device can detect CDP, LLDP, NDP and VLANs, the presence of PoE and class of PoE per IEEE 802.3af/at with load test for voltage drop, as well as current link speed and link capabilities for active Ethernet drops up to 1Gbps.

Other features include a link light to identify location on a hub/switch/router port, and the ability to define network test name, cable name, and save and print all testing results.



Test Tools For hire

CALL NOW FOR BEST PRICES!
0208 943 5151

FLUKE AIRCHECK
Wireless Lan Analysers



SPIRENT AXON
Network and application tester



FLUKE DSX-5000
Cable Certifier Cat.6/7



JDSU MTS-4000
Mini OTDR Quad band 850/1300 - 1310/1550



Benefits of rental from Livingston

- Replacement equipment in case of defects
- Always up-to-date Instruments
- Fully calibrated and well maintained
- Local Technical support available
- Access to large World-Wide Inventory
- Very competitive rental rates.



Visit us at livingston.co.uk

Livingston Ltd, Livingston House, 2 Queens Road Teddington, Middlesex, TW11 0LB.
Registration number - 913760, Phone: +44 (0)2089435151

Not enough women in IT

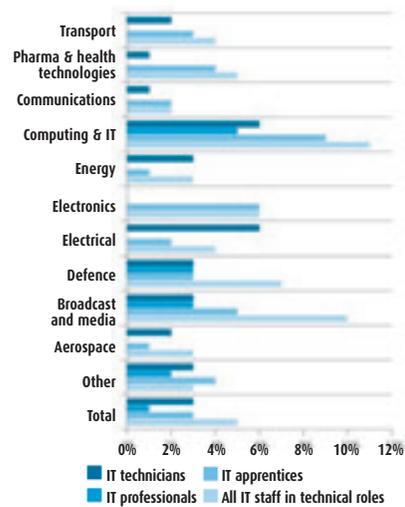
Only three per cent of women make up the average computing and IT sector engineering workforce, according to a recent study by the Institution of Engineering and Technology (IET).

As part of its annual *Skills and Demand in Industry* survey, the IET interviewed 400 engineering and IT companies on their recruitment plans, skills, and women on the payroll. It found that all of the sectors surveyed had an eight per cent or lower female proportion of their workforce.

Overall, the study showed the proportion of female engineers in all industries has not improved since 2008 and currently stands at just six per cent of the workforce. The IET also found that 43 per cent of employers are not taking any specific action to improve workplace diversity even though demand for engineers in the UK remains high.

"Research from Engineering UK suggests we need to find 87,000 new engineers each year for the next decade so now is the time to act," says IET chief executive Nigel Fine. "Promoting engineering to women is particularly important given how few currently work as engineers. So it's disappointing to see that so many employers are taking no real action to improve diversity."

Fine calls on employers to take "urgent" steps to improve recruitment and retention of women. He says they can do this by promoting flexible and part-time working together with planned routes of progression that can accommodate career breaks.



The proportion of female IT staff by sector. The Computing and IT industry itself has the highest percentage of women in professional IT roles. SOURCE: IET

Westermo hits the road with mobile training centre

Westermo has unveiled a new Mobile Training and Technology Centre (MTTC) to support UK system design and application engineers wanting to keep up with industrial communications developments.

Recognising that it can be difficult to find the time to attend conferences, exhibitions and training courses, the industrial data communications specialist says the MTTC will make it easier for engineers to learn about the latest technologies by bringing working examples and technical experts directly to their door.

The mobile centre will visit firms across the country, offering engineers the chance to gain hands-on experience with a broad range of industrial comms devices. It is equipped with networked product displays

incorporating industrial modems, line extenders and Ethernet switches.

As well as eliminating travel and accommodation costs, Westermo says the MTTC provides a controlled learning environment to maximise training time. Engineers will be able to discuss their individual industrial networking requirements with the firm's technical experts, and gain access to a range of onsite training courses which include a new one-day session about IP. www.westermo.co.uk

NEW COURSES

CPD seminars – Rittal

Rittal has launched three new free seminars to support customers in their continuing professional development. The seminars take the form of short presentations and

workshops, and each is accredited by the Chartered Institute of Building Engineers.

Seminars include: *Building a Data Centre in the Perfect Storm*, which covers aspects of data centre relocation, refurbishment and regeneration; *Introduction to the Application of IEC 61439*, which discusses how this new production standard should be applied to the design and manufacture of low voltage switchgear and controlgear assemblies; and *Date Centre Energy Efficiency*, which looks at the different strategies that can be implemented and the potential gains and compromises that could occur.

Seminars can be presented at consultants' and contractors' offices or at Rittal's venues in the UK. info@rittal.co.uk

Big Data and location conference – Association for Geographic Information

According to AGI, personal navigation

data, Earth observations and the Internet of Things are amongst the largest volume sources of Big Data, and each has location at their core. This one day conference provides a forum for knowledge exchange covering the key technical concepts, business issues and real world use cases associated with Big Data and location.

It will feature Big Data experts from IBM, Cloudera, MapR and Deloitte, major commercial users including Marks and Spencer and Telefónica, as well as speakers from the geospatial sector such as Esri and Ordnance Survey.

Two parallel streams will run through the day, one focusing on strategy and the other on best practice. There is also an accompanying exhibition. The conference takes place on 30 September at IBM, South Bank, London. www.geobig5.com/events/big-data/



POWER DISTRIBUTION UNITS

WITH LOCAL AND REMOTE POWER MONITORING



FOR DATA CENTRE
19" RACKS
VERTICALLY MOUNTED WITH
COMBINATION
IEC 320 C13 AND
IEC 320 C19
24-36 SOCKETS
230V 16AMP - 32AMP
SINGLE PHASE

Since 1961 OLSON have specialised in the manufacture of mains distribution panels and is an established supplier to many leading UK Companies.

All OLSON units are manufactured to ISO9001 and with our quality management systems existing in all parts of our organisation, you can expect the very highest standard of service from first contact through to the despatch of each order.

CALL OUR SALES HOTLINE

020 8905 7273



ELECTRONICS LIMITED

OLSON HOUSE, 490 HONEYPOUT LANE, STANMORE, MIDDX HA7 1JY
TEL: 020 8905 7273 FAX: 020 8952 1232
e-mail: sales@olson.co.uk web site: <http://www.olson.co.uk>



Made in the UK



> AT THE HEART OF DATA STORAGE

Reliable data storage is the lifeblood of any enterprise. So why trust your data to anything less than the most trusted, most reliable drives from the most experienced manufacturer? Toshiba invented NAND flash storage, and have millions of drives installed worldwide. From HDDs to SSDs, and 3.5" to 2.5", when you need high-capacity, high-performance storage solutions for the heart of your enterprise, your head says Toshiba.

For more information visit www.storage.toshiba.eu

