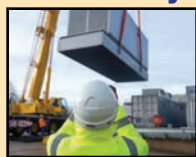


networking

FIXED & WIRELESS NETWORKS FOR ENTERPRISE USERS

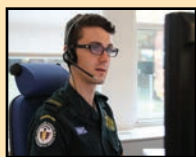
New heights in sustainability?

Capgemini reaches for new efficiencies with its SPIE built modular data centre
News, p2



Life and death situations

IT and comms networks for the emergency services
Real World Networks, p8



Securing the machines

The Internet of Things needs a new approach to network security to succeed
Feature, pp10-13



UPS

Delivering power when you need it most – we round up latest UPS systems
Off-the-shelf, p14



oneM2M releases first global standard for IoT interoperability

by Rahiel Nasir

oneM2M has announced the world's first standard that aims to ensure optimised interoperability of connected devices in the Internet of Things (IoT) and machine-to-machine (M2M) networks.

More than 200 member companies from around the world contributed to the development of its Release 1 specifications. oneM2M says they provide a framework to support applications and services such as the smart grid, connected cars, home automation, public safety and health.

Release 1 is a set of 10 specifications that cover architecture, API requirements, security and mapping to common industry protocols such as CoAP, MQTT and HTTP. It also uses specs from oneM2M's partner organisations, such as the Broadband Forum and Open Mobile

Alliance, for device management.

According to oneM2M, the new standard provides "sufficient building blocks" to enable today's generation of M2M and IoT applications to interwork with each other.

Dr Omar Elloumi, the organisation's technical plenary chair and head of M2M and smart grid standards at Alcatel-Lucent, says: "Release 1 utilises well-proven protocols to allow applications across industry segments to communicate with each other as never before – not only moving M2M forward but actually enabling the Internet of Things."

Elloumi adds that having such a set of specifications working together at the service layer to "truly stitch M2M together" will enable service providers to support applications and services across a range of industries.

"The horizontal service platform we have created is already usable over several underlying transport technologies, such as Wi-Fi, fixed line and cellular. This reduces the complexity for the M2M application developer, allows lower capex and opex for the service provider, and creates a world where ultimately people will interact more seamlessly with other people and machines in their daily lives."

oneM2M says it now plans to work on making the entire experience of using M2M much easier, as well as looking to achieve further seamless interworking with other IoT technologies through collaboration with the groups working on them.

oneM2M is a global organisation and was formed in 2012 by seven international standards development bodies, including the European Telecommunications Standards Institute, ATIS and TTA from the US, CCSA from China, amongst others.

Various industry experts are predicting massive growth in the IoT market over the next few years, but some analysts have warned against "unrealistic" expectations.

For instance, Beecham Research says an average growth rate of nearly 30 per cent per annum over the next few years

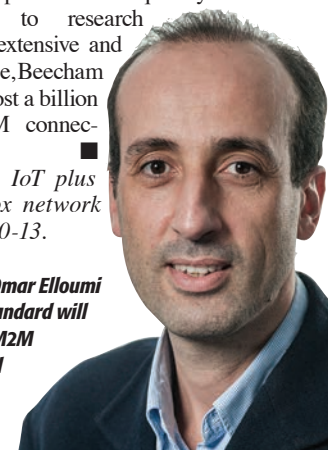
represents a "very strong and exciting opportunity" in a services market that is substantially business-to-business.

However, its founder and CEO Robin Duke-Woolley adds: "Unfortunately, there are some ludicrous, multi-billion connected device forecasts around at present for M2M and IoT that betray a complete lack of understanding about how the market really works. Much faster growth rates are just not realistic in this market because enterprises do not assimilate new technologies into their business processes that quickly."

According to research based on its extensive and global database, Beecham forecasts almost a billion cellular M2M connections by 2020.

Securing the IoT plus Arqiva/SigFox network update – pp10-13.

OneM2M's Dr Omar Elloumi says the new standard will not only move M2M forward but will actually enable the IoT.



"Lowest latency" route launched between Slough and Frankfurt

McKay Brothers International (MBI) claims it has launched the industry's fastest private bandwidth service, with latency at just 4.64 milliseconds for a round trip between the Slough-LD4 and Frankfurt-FR2 data centres.

Describing the speed as the "lowest known latency", the US-based company is now finalising more routes between the UK and Germany and is also offering a London metro service.

"Bandwidth subscribers understand the value of access to the fastest network," says MBI MD François Tyč. "McKay's private bandwidth subscribers leverage our proven expertise in engineering, building and operating the industry's leading microwave networks."

Tyč adds that MBI will add its *Quincy Extreme Data (QED)* service to the Slough-Frankfurt circuit. This is an integrated and normalised feed of select market data sourced from multiple financial exchanges globally, and is offered in exchange colocation centres around the world. MBI says QED subscribers will receive trade information on select Eurex Order by Order futures in Slough-LD4 in a record breaking 2.32ms (one-way).

MBI provides private bandwidth and says it distributes extremely low latency microwave market data. Its US microwave network has been active since 2012, and the firm reckons its flagship metro routes in Illinois and New Jersey "deliver the industry's lowest-known latencies."

EXCLUSIVE TO
networking
READERS

IP-COM

Register at networkingplus.co.uk and you could win this IP-COM managed wireless solution

Looking for a cost effective, fuss free Managed WiFi Solution?
See the new range from IP-COM where price is not a hurdle!

See page 4 for details

solwise.co.uk

Solwise

Merlin will be “most sustainable” DC

Technology consultant Capgemini UK has selected SPIE as principal contractor and designer for its Merlin data centre, located near Swindon, and touted by its owners as “the world’s most sustainable data centre”.

Emphasising its modular design, Capgemini claims Merlin sets new benchmarks in a number of areas of data centre design, and also makes it possible to adhere to strict time objectives while minimising the environmental footprint.

SPIE is currently delivering stage one of the development’s second phase expansion. It says it is installing a “highly efficient”, indirect, fresh air cooling facility. This will also combine heat-pipe, heat-transfer technology in the cooling modules, and indirect outside air cooling technology.

An average 2.4 kW output per rack is expected to be achieved through the use of a hot aisle containment system allowing for much higher individual rack capacities. SPIE is constructing each module in a way that has the potential to increase the 104 racks in each individual module to 143.

The firm adds that each containerised power plant will incorporate generators, flywheel UPS systems, and switchgear. The initial resilient power will be of a maximum 1MW(N+1), but there will be the capacity to upgrade to 2MW.

The design also includes managing the acoustics in operation to meet local environmental health requirements.

SPIE operations manager Nick Hopper says the advantages of his company’s

off-site build methodology include maximising decision-making time, and it all results in what he claims is a “very high-quality” finished product.

“With reduced disruption to the existing facility and to the local area, the client can optimise project value, reducing testing time and minimising waste and carbon emissions on-site,” says Hopper.

He adds that the project with Capgemini builds upon a long-term relationship working within several of its critical buildings throughout the UK.

SPIE previously installed and commissioned the first phase of data modules at the Merlin site in 2010. The second phase started in November 2014 and is due for completion in May 2015. ■



SPIE is using a modular approach to building Capgemini’s Merlin data centre, and claims it is setting new benchmarks in design.

3D stacked cell flash memory

Toshiba says it has developed the world’s first 48-layer, three dimensional stacked cell structure flash memory. Called *BiCS*, it is a two-bit-per-cell, 128Gb (16Gb) device.

Conventional NAND flash memory features cells that are arranged in a linear direction on a silicon plane. But according to Toshiba, a structure that stacks flash memory cells in a vertical direction to a silicon plane can lead to a comparatively significant improvement in density.

BiCS is based on what’s described as a “leading edge” 48-layer stacking process. Toshiba says this enhances the reliability of write/erase endurance, boosts write speed, and is suited for use in diverse applications, primarily solid state drives.

Since making the world’s first announcement of technology for 3D flash memory in 2007, the company says it has continued development towards optimising mass production. To meet further market growth in 2016 and beyond, it is proactively promoting the migration to 3D flash memory by rolling out a product portfolio that emphasises large capacity applications, such as SSD.

Toshiba adds that it is also getting ready for mass production in its new Fab2 facility at Yokkaichi Operations, its production site for NAND flash memories. Fab2 is now under construction and will be completed in the first half of 2016 in an effort to meet growing demand for flash memory. ■

Tur Langton gets high-speed link

Residents in and around the Leicestershire village of Tur Langton now have access to a high-speed fibre network for the first time thanks to ISP Commstel Connect.

Based in the village itself, Commstel says it specialises in connecting rural communities that are not expected to be covered by BT Openreach’s FTTC rollouts. The ISP has launched its *ccAir* service in Tur Langton using fibre from Virgin Media. Virgin does not offer its services locally, but provided a dedicated FTTC connection and is backhauling the network as part of a partnership deal with Commstel.

The village is home to about 300 people and roughly 60 premises, as well as a converted farm that now acts as a business estate with around 30 firms. Commstel has connected the businesses via FTTP, offering symmetrical speeds of up to 100Mbps with the potential to go up to 1Gbps.

The firm is now connecting residential users. While some premises are close enough to the local cabinet to benefit from a direct FTTP link, those that are further away will be connected wirelessly via a microwave antenna mounted on the roof of Commstel’s office which is on the business estate.

Tur Langton is the first community to benefit from *ccAir* and can now access speeds that are almost 50 times faster than the previously used copper-based lines. Commstel director Charlie Harris says that while the government’s BDUK programme

is committed to bringing superfast broadband to 95 per cent of premises by 2017, those in the final five per cent who tend to live and work in remote, rural locations stand to miss out on the superfast revolution.

“[Rural] locations are typically getting around 2-5Mbps downstream and can now get up to 200Mbps. This type of connectivity is paramount to small- to medium-sized businesses in rural areas, allowing them to stay connected, grow and contribute to an even better Britain,” he says.

Harris adds that further *ccAir* rollouts using a mix of wireless and FTTP will become live this year. They include a deployment in Melton as well as one in the Daventry village of Marston Trussell. ■



As well as FTTP, Commstel is delivering wireless connectivity via a microwave antenna on its roof.

NHS Trust selects Alcatel-Lucent for unified and collaborative WLAN

Alcatel-Lucent Enterprise has been chosen to install a new wireless LAN and distributed-core data centre network at the Royal Brompton and Harefield NHS Foundation Trust (RBHT).

The “transformational” IT project will consist of a highly available unified access-powered network designed to offer reliable on-site and inter-site mobility, as well as providing seamless connectivity across wired and wireless environments.

One of RBHT’s key technology requirements was for its heart and lung department, which includes high-dependency wards requiring telemetry monitoring, often for months at a time. The trust says it was essential that the selected infrastructure would meet patient, doctor and visitor communications needs not just for the present but well into the future.

Its multiple sites in London and Middlesex also needed a robust network designed to support reliable collaboration tools via mobile and fixed devices. This has been achieved using a single authorisation and management process for both wired and wireless environments.

Working with its channel partner Khipu Networks, Alcatel-Lucent deployed a scalable solution based on its *OmniSwitch 6900* (pictured) at the core, and 802.11ac wireless connectivity at the access layer.

It says the new network will have the potential to better enable doctors and administration personnel to use wireless devices across the trust to access and record information quickly and accurately. ■



**100X APP
PERFORMANCE
= -50% IT COSTS**

Improve application performance up to 100x, reduce IT costs 50-80% and recover branch operations instantly, with the Riverbed Application Performance Platform.

Riverbed eliminates the performance constraints holding back modern IT architectures by integrating performance acceleration and performance management technologies to help IT automatically detect and mitigate application and data delivery issues.

Learn More: www.zycko.com/riverbed

riverbed

zycko | International distributor
of innovative IT solutions

+44 (0) 1285 868 500
riverbed_uk@zycko.com
www.zycko.com/riverbed

Airbus helps MoD keep track of military assets

Airbus Defence and Space (ADS) has won a contract to supply the Ministry of Defence with satellite airtime for air and ground tracking of ground assets and helicopters on a worldwide basis.

The UK's established Asset Tracking System (ATS) meets Operational Command situational awareness requirements by providing the location of tracked ground and air assets in near real-time.

The strategic importance of the ATS requires reliability across all of its components including the satellite airtime provided by Airbus to transmit GPS data from assets in the field.

ADS will supply services from mobile satellite specialist Iridium, including its *Short Burst Data* and *RUDICS*, for the MoD's ATS, Helicopter ATS (HeATS) and Ground ATS (GrATS).

Paul Millington, head of government communications for Airbus Defence and



Paul Millington,
head of government
communications at
Airbus Defence and
Space, says the new
deal is an extension of
its cooperation with
the MoD.

Space UK, says: "This service further extends our close cooperation with the MoD beyond the Skynet satellite network. Remote tracking and monitoring of critical assets is a rapidly expanding area and we are delighted to be able to support ATS."

Airbus Defence and Space claims to be a "unique" satellite services provider. It says it has complete control over its own fleet of military satellites and teleports, and is also an end-to-end service provider for both military and commercial fixed VSAT and mobile bandwidth and network services. ■

SSE lights up seven Manchester DCs as it continues UK expansion



Network infrastructure services provider SSE Enterprise Telecoms is adding seven new data centres in Manchester to its national network.

The firm says its decision to build the centres in Manchester is due to the city's status as the heart of Britain's second-largest built-up area. Citing data from the Office of National Statistics reported earlier this year, SSE points out that Manchester had the highest expansion rate of all Local Enterprise Partnership areas in England, experiencing 4.6 per cent (£2.5 billion) growth in 2013.

SSE adds that the sustained inward investment in Manchester has resulted in a marked increase in software development and IT services businesses in the region. It says this has led to a commensurate increase in demand for faster and more reliable access to the cloud computing services hosted in the city's data centres.

Colin Sempill, MD of SSE Enterprise Telecoms, says there was a "clear" investment rationale for his company.

SSE says it has increased the reach of its fibre network to more than 13,700km with a total of 234 PoPs nationwide.



THE WORLD ACCORDING TO...

Stephen Gates, chief security officer, Corero Network Security

'Black hole' routing does not equate to protecting against DDoS attacks

Traditional techniques of defending networks against a DDoS attack include SYN-cookies, SYN-proxy, redirects, challenges and, of course, the 'black hole' routing technique, to name a few.

Black hole routing, (also called null routing) involves creating an IP-traffic route that virtually goes nowhere. Null routing is often a tool of choice for organisations that have no other means of blocking an attack.

But the victim of a DDoS attack may not be the only entity impacted. For example, other users that share the same infrastructure as the victim may also experience the effects of the attack, and have their service degraded or taken offline altogether as their infrastructure, servers, and applications are severely impacted by the onslaught of the phony traffic.

With no DDoS defences in place, victims normally call their ISPs and ask for help with blocking the attack upstream. The ISP injects a null route with the IP address of the original victim into its routing infrastructure and begins blocking

all DDoS traffic. However, this approach not only blocks all DDoS traffic, but also blocks all 'good traffic' as well.

Additionally, since most DDoS attacks are highly spoofed, trying to null route the source IP addresses is nearly impossible.

For commercial customers that require 100 per cent uptime, black hole routing is an unacceptable solution. It is a rudimentary approach to DDoS mitigation, which in many cases does more harm than good. Technology exists today that is completely capable of blocking all DDoS attacks in real-time.

Purpose-built DDoS technology is rapidly becoming the standard for real-time DDoS protection. When deployed at the ISP's peer points, this DDoS defence solution can effectively remove all DDoS attack traffic from ever entering the ISP network; blocking the attacks before they can wreak havoc on the ISP's infrastructure, or impact its customers. With proper protection, the days of dealing with DDoS attack outages are over.

EDITORIAL:

Editorial director: Rahiel Nasir
rahieln@kadiumpublishing.com

Staff writer: Abdul Montaqim
abdulm@kadiumpublishing.com

Designer: Alan McClenaghan
alanm@kadiumpublishing.com

Thanks to: Neil Chapman,
Stephen Gates, Lilac Schoenbeck

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
The Magazine Printing Company.
© 2015. 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

"Our decision to bring seven new data centres on-net in and around Manchester, the UK's second-largest city and business hub, is in line with our continued focus on delivering our ultra reliable and high-quality Ethernet and optical networking services to the UK's most demanding enterprises.

"We look forward to furthering our nationwide reach, with Manchester playing a key part of our strategic network expansion plans."

The data centres that are now fully participating members of the SSE Enterprise Telecoms' national optical network in Manchester are: DataCentred; Dock 10

Media City; M247; Telecity Group (Williams House); Telecity Group (Reynolds House); Telecity Group (Synergy House); and UKFast MaNOC 6. SSE already has some data centres online in Manchester, including Telecity Group's Joule House and Kilburn House.

This latest initiative follows the recent completion of the first phase of 'Project Edge', SSE's ambitious network expansion plan. This has so far increased the reach of the company's fibre network to more than 13,700km with a total of 234 PoPs, serving more than 200,000 metropolitan business postcodes nationwide. ■

Vigor 2860 Series The ultimate xDSL router



- Professional-class router/firewall
- Ideal for HQ, branch or teleworker
- ADSL, VDSL, Ethernet & 3G/4G
- Triple load-balancing & failover
- VPN Tunnelling (SSL & IPsec)
- IPv4 and IPv6 dual-stack
- 6-Port Gigabit Switch
- Rack/cabinet mountable

Wireless Management



- No dedicated/specialist controller required
- Mobility - Wireless throughout your premises
- Load-Balancing across multiple APs
- Reporting, logging & monitoring
- Security & isolated guest access

See www.draytek.co.uk/wlan

Does your company use a router or WiFi ?

If you use or operate a router or WiFi network, you are a potential target for hackers. Read our essential new guide *The 27 things every router user needs to know*.

Download and read it
today from

www.draytek.co.uk/net



DrayTek

Firms need to ditch Windows Server 2003

Businesses could face fines under new EU laws if they do not migrate away from *Windows Server 2003* in time and secure the data on their systems. The warning comes from IT services provider Advanced 365 ahead of Microsoft's ending of support for its server OS. From 14 July, the software giant will no longer issue patches or updates for applications hosted on *Windows 2003*. Firms which continue to use the platform may face operational disruption, significantly increased support costs, and be unable to comply with new data regulations. Anticipated changes to existing EU legislation could see organisations fined up to £780,000, or five per cent of their annual turnover, if they are found guilty of data security breaches after the introduction of the law in 2016. ■

Telehouse adds North Two to Docklands

Telehouse is expanding its Docklands campus in East London with what its claims is "Europe's most advanced data centre". North Two will open in early 2016 and will provide 23,000m² of floorspace across 11 storeys. Telehouse invested £135m in the facility which uses the latest technology for increased efficiency. For example, the vertical indirect adiabatic and evaporative cooling system addresses restrictions driven by load fluctuations and delivers what's said to be an industry leading PUE of 1.16 in an N+2 configuration into hot aisle containment. A high level of resilience and redundancy is also promised with 2(N+1) UPS configuration with a total N+1 generator capacity of 18.5MW. ■

Bain Capital to acquire Blue Coat for £1.9bn

Enterprise IT security solutions provider Blue Coat is being acquired by Bain Capital from Thoma Bravo in an all-cash transaction valued at \$2.4 billion (£1.9 billion). Over the past three years, Blue Coat says it's experienced strong market share and revenue growth in its major product lines, and currently counts 80 per cent of the *Fortune 500* as customers. It also claims to have built the largest global cloud security infrastructure. David Humphrey, a managing director at Bain Capital, says the new owner intends to "grow the business organically through acquisitions". ■

Innovative Wi-Fi systems from Purple

Purple WiFi has signed three separate deals with footwear retailer Schuh, grocery chain Nisa, and Camden Market.

The Manchester-based firm specialises in "social Wi-Fi" for businesses that want to offer free Wi-Fi to visitors. Its service is cloud-based and natively integrates with most leading wireless hardware manufacturers.

For the deployment at Schuh, Purple says it is providing a "family friendly" and secure system along with mobile stock checking across the retailer's entire estate, which includes more than 100 UK stores.

Schuh wanted a guest Wi-Fi system that was easy to access and had built-in reporting. It wanted to be able to monitor the network, identify devices in different locations, view analytics, and gain valuable insights in order to communicate more effectively with customers.

Customers can use the guest Wi-Fi system to check stock in real time, or use social media without 3G or 4G. Moreover, Purple says that by using a completely



Purple has won a contract to install guest Wi-Fi at more than 100 Schuh stores across the UK.

separate and secure channel from the guest network, Schuh can also use the system for its mobile payment service. This incorporates handheld payment devices, transactional kiosks and e-receipts to give the customer a choice of how they want to shop.

Purple is working in partnership with Egton and Cisco Meraki to deliver the Wi-Fi solution at Schuh, following an introduction from Ingram Micro. It has already connected two-thirds of the stores, and plans are in place to roll out its

solution to the remaining shops by the end of the second quarter of 2015.

In the two other deals, Purple is offering location-based services along with its Wi-Fi solution to the Cardiff branch of Nisa and Camden Market.

The company says location based services offer a commercial return to businesses that offer free Wi-Fi to visitors. It adds that the services also offer the host venue valuable data and an "unprecedented" level of insight into consumer behaviour. This provides marketing opportunities and the ability to engage customers directly via features such as *Facebook* demographic reporting, zoning reporting, and vouchering.

Purple says Nisa Cardiff and Camden Market are already utilising its geo-fencing feature, drawing "invisible lines" around particular sales areas or locations. This has enabled businesses to gauge what purchases the customer might be considering and send information or offers in real-time to their mobile devices. ■

Scania picks Olive for multi-million pound UC deal

Olive Communications has won a multi-million-pound contract to supply truck-maker Scania with a new cloud-based unified communications solution for 1,000 employees across 50 sites.

Olive will not only install but will also manage the system on an ongoing basis. The company will also roll out a new contact centre, implement a new MPLS network and LAN infrastructure, and take over the management of Scania's mobile phone estate which comprises more than 600 users.

Scania is a well-known supplier of trucks, buses, coaches and engines for industrial and marine applications. It previously had an outdated communications system and wanted to adopt a new model



Olive CEO Martin Flick says the new system increases the ability of employees to communicate with each other wherever they may be.

of cloud-based connectivity. Richard Gray, the company's finance and rental director, says: "With our current system coming to the end of its natural life, we wanted to procure the best possible solution for our business. Our objectives were to improve our ability to provide a first-class service to our customers, enhance employee-to-employee

communications, and reduce our infrastructure and telecoms costs across the board."

Scania asked Olive to concentrate on four key areas of its communications system: enhancing the customer experience; improving employee-to-employee communications; market-leading resilience, account and service management; and substantial cost reduction.

Olive Communications CEO Martin Flick says: "Bringing together cloud and mobile connectivity under one managed service is an increasingly popular deployment for Olive customers, as it increases the ability for employees to contact each other wherever they are working, improving productivity." ■

CityFibre to build 150km fibre network in Edinburgh

Edinburgh is to become the UK's largest "Gigabit City" as a result of a partnership between CityFibre and Commsworld. Under the agreement, the two companies will build a 150km, ultra-fast, pure fibre network in the Scottish capital.

CityFibre is a designer, builder, and operator of fibre optic infrastructure in the UK, while Scotland-based Commsworld is a specialist network service provider. The two firms plan to bring gigabit connectivity to

within reach of an estimated 7,000 businesses in Edinburgh and establish it as CityFibre's next "Gigabit City" project.

The initial 50km of the Edinburgh pure fibre network is backed by a contractual commitment from Commsworld to migrate a significant proportion of its large existing base of business customers onto CityFibre's new fit-for-purpose infrastructure.

CityFibre has so far launched Gigabit City projects in York (*News*, Jun 2013),

Peterborough (*News*, Nov 2013), Coventry and Aberdeen, where metro-wide pure fibre networks (known as 'COREs') bring ultra-fast internet connectivity and the benefits of gigabit speeds. The company now claims to own and operate LANs that span a 490km route, serving more than 800 customer locations in 60 towns and cities in the UK, which also include Huddersfield, Hull, Sheffield, Newcastle, Dundee, Bath, Derby and Doncaster. ■

Register today for
networking
and you could
win this IP-COM
Wireless Managed
Solution kit
networkingplus.co.uk

Solwise

Enter our competition for the opportunity to win an IP COM Wireless Managed Solution kit comprising of the CW500 AP Controller, 2 W300AP Ceiling Mount Access Points, 1 of the W30AP in-the-wall Access Points and a F1008P Desktop PoE Switch. All this would normally come to a total of just £212.55 (SSP) including VAT and delivery offering you great value for money.

<http://ip-com.co.uk> <http://www.solwise.co.uk>

IP-COM

IP-COM Managed WiFi Solutions from Solwise.co.uk

The CW500 and CW1000 from IP-Com represent two new, super-affordable, Access Point management and control products. Either product is able to manage a new growing range of access points including ceiling mount and wall mount style with 2.4GHz 11n up to 450Mbps and 11ac 5GHz up to 1.3Gbps. The CW500 and CW1000 controllers are ideal for hotels, holiday resorts, schools, and corporate sites or anywhere where a flexible and low cost managed AP system is required. The CW500 controller is suitable for sites requiring up to 64 access points and the CW1000 where you need to manage up to 500 access points from a single controller. Both controllers allow operators to configure and manage either single or multiple access points through a simple browser front end. Centralised management supports functions such as multiple access point settings, client connections, VLAN control, L2 roaming and firmware updates. Both controllers offer a low cost, scalable solution for sites varying in size from the home users needing only a handful of access points up to a corporate, hotel or school site where hundreds of access points might be required.

All Networking+ readers are eligible to enter the draw for an IP COM Wireless Managed Solutions kit. To enter, complete the registration form online at www.networkingplus.co.uk ensuring that you tick the Solwise offer box. Please note this is restricted to UK-based readers aged 18 years or above who register or re-register to receive Networking+ before 24 April 2015.

Now, lower your operating costs without compromising availability.



With three modes of efficiency, the new Galaxy VM delivers the performance you need.

Balancing the trade-off between availability and efficiency has always been a challenge. The Galaxy™ VM three-phase UPS from Schneider Electric™ eliminates this issue, with three modes of efficiency to deliver the highest availability. The exclusive ECOConversion™ mode provides 99 percent efficiency, offering higher cost savings and reduced risk while retaining the power conditioning of double conversion. Innovative modular battery architecture lets you pay as you grow, increasing capacity and runtime with flexible energy storage.

Trusted partner for your business continuity

Seamlessly integrating with the electrical networks, physical infrastructure, and monitoring systems in any data center, and boasting one of the industry's most compact footprints, the unit fits almost anywhere with minimal space requirements. Also featuring isolated connections and bypass cabinet completely separated from power for safe service and easy maintenance, top and bottom cable entry, and included start-up service, the Galaxy VM is one of the easiest UPS units in its class to deploy, install, and maintain.

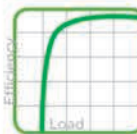
Business-wise, Future-driven.™



Download our white paper Calculating
"Total Power Requirements for Data Centers"

Visit: www.SEreply.com Key Code: 55220p

Easily serviceable, cost-saving design



Three modes of efficiency:

The only UPS on the market with three modes of efficient operation to deliver the availability and performance your business needs.



Modular battery architecture:

Pay-as-you-grow modular energy storage offers increased availability and scalability.



Front-access servicing:

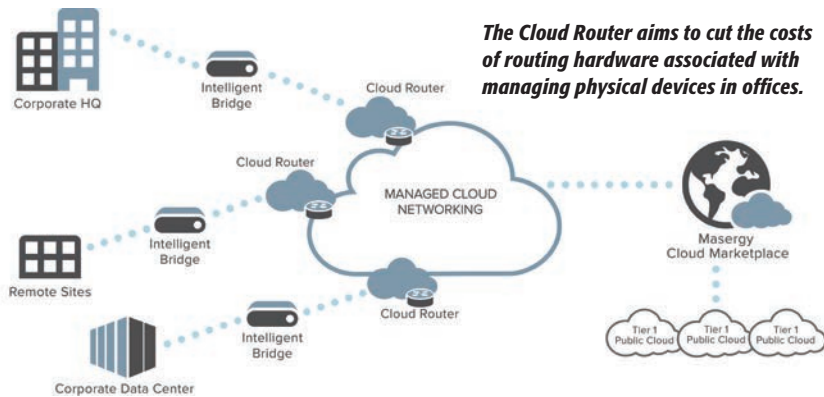
Quick and easy installation and maintenance, reduced mean time to repair, and valuable floor space savings.



Equipment life cycle services:

Schneider Electric Critical Power & Cooling Services offers monitoring and maintenance services to protect the health of your Galaxy VM.

Schneider
Electric



Masergy develops NaaS and Cloud Router

Masergy Communications claims it is turning the vision of SDN into reality with the launch of a new *Cloud Router* as well as its Network as a Service (NaaS) platform.

Cloud Router is said to be a full-featured managed router which reduces the capital costs of proprietary routing hardware and the administrative costs associated with managing physical devices in offices.

Masergy says it can be rapidly deployed, and is offered in *Standard* and *Advanced* service levels with a business continuity and disaster recovery option available for the latter. Both services are said to support bandwidths of up to 100Mbps.

The NaaS platform has been launched as an extension of Masergy's SDN offering. It has been developed to enable customers to quickly and cost-effectively connect corporate branch offices and remote

locations to their Masergy global VPN.

They can use their own ISP and a Masergy managed appliance to serve as the VPN endpoint, which establishes a secure connection to the nearest Masergy PoP. Customers can also use their own endpoint device for instantaneous implementation.

The platform offers self service and is available globally at bandwidths ranging from 1Mbps to 100Mbps. Masergy reckons it is ideal as a stop-gap solution for short-term connectivity needs, temporary work sites, retail locations, or for redundant connectivity as part of business continuity plans.

Masergy CTO Tim Naramore says the firm is taking the complexity out of networks. "There are no forms to fill out or sales representatives to speak with. Customers simply log into the portal and configure NaaS for any ISP, anywhere in the world."



VIEW FROM THE TOP

Lilac Schoenbeck, VP of product management, Iland

Colocation doesn't have to be an either/or where cloud is concerned

IT departments in many businesses are feeling the pressure to build a more agile, modern, cost-effective cloud environment. In particular, one that has the ability to adapt to business change quickly.

Most organisations are investigating a move to the cloud to reap all those promised benefits of scalability, agility, the ability to spin up your infrastructure in days rather than months, and all at an affordable price.

It wasn't that long ago when we were promoting virtualisation, coaxing organisations out of the need for physical systems and into a shared, more cost-effective model. Now we're asking IT to stop thinking about a virtualised system and to start thinking about delivering it all in the cloud.

There are a number of reasons why this change is hard: not all systems have been virtualised; not every application in an enterprise estate has made the shift to 2005, let alone 2015; and many databases have not made the leap to becoming VMs.

So where does this leave those seeking to move to the cloud? For many, multi-tiered applications with physical dependencies or

specific networking requirements, platforms and applications are all hindering that move.

Most cloud providers have forgotten how to do one of the most critical tasks in hosting: colocation. Colocation is the practice of housing your servers and devices in a professional data centre in order to access a whole host of advantages. These often include economies of scale, advanced infrastructure, greater bandwidth, lower latency, specialist services and systems, constant security, and more.

There are a number of reasons cloud companies should offer colocation at every one of their global locations. They can support customers with physical system needs, with dependencies on specific network configurations and with non-standard operating systems. It shouldn't be an either/or decision. You don't have to be 100 per cent virtual and 100 per cent standard to benefit from the cloud.

Enterprises don't have to choose colocation or cloud. It is about making sure that colocation and cloud services co-exist so that IT can evolve.

Sumerian predicts future with Capacity Planning as a Service

UK-based provider of IT planning software Sumerian is claiming that "specially designed algorithms" in its newly launched *Capacity Planning as a Service (CPaaS)* application enables companies to predict the future.

The firm is offering *CPaaS* as a subscription service delivered through the cloud, and says that its "what if" scenario modelling gives clients the ability to test out and compare multiple scenarios based on their organisation's potential future IT requirements.

Sumerian claims it is one of the first to offer this type of on-demand service which it says provides organisations with "panoramic visibility" across their IT estates and enables "accurate forecasting" of what they will require going forward.

"*Capacity Planning as a Service* takes the guesswork out of IT planning," says Sumerian CEO David Stevens. "In increasingly complex IT environments,

organisations find it difficult to get an accurate picture of their current infrastructure and struggle to estimate future consumption.

"*CPaaS* shows customers exactly what capacity headroom they have now across their IT estate and makes it easier to accurately forecast for future IT spend. It gives IT department heads a holistic view of the IT estate and greater insight into how current resources can be optimised, enabling them to make smarter investment decisions."

The company hopes the fact that *CPaaS* does not require installation or software agents will encourage IT managers to try out the various levels of service on offer.

"As a cloud-delivered service, *CPaaS* does not require any upfront investment, and businesses do not need to allocate their own data storage, hardware or maintenance resources which can come at great cost," says Stevens.

Data centres without boundaries

Wipro says its new *Boundary Less Data Centre (BLDC)* will enable enterprises to be competitive by reducing time to market, driving business agility and scale.

Using a data centre architecture based on SDN and VMware, the firm says the *BLDC* offers transformative analytics to gain insights from enterprise assets and workloads. It aims to evaluate IT resiliency and is said to provide a technology blueprint to maximise the business value of IT investments for customers.

Wipro claims its industrialised workload migration approach, coupled with *ServiceNXT*, its integrated managed services framework for hybrid IT, makes the transformation journey easy for its customers.

In collaboration with its ecosystem of partners, the company plans to build industrialised repeatable solutions based on

standard reference architectures which will include virtualised compute, networking and storage utilising VMware products.

"*Boundary Less Data Centre* is a new paradigm which helps enterprises accelerate their IT transformation," says G. K. Prasanna, Wipro's chief executive of global infrastructure services. "This offering will enable organisations to scale data centre capabilities beyond the traditional IT boundaries to achieve the right business outcomes."

Wipro is currently offering the service from its data centres in Europe and the US, and from its customers' on-premises data centres, with a roadmap to launch in emerging markets later this year. The firm's customers will have access to run use cases and proof of concepts from the Wipro centres of excellence in India and USA.



olive.co.uk

always connected

Making the move to cloud communications?

Contact us info@olive.co.uk or 0203 675 3300 and find out how we could help you.














01923 698230 | sales@prismenclosures.co.uk | www.prism-online.co.uk

prismTM
enclosures *committed to better*



UPS



PDU



Batteries/
Accessories



Generators



Voltage
Optimisation



**Onsite
24x7
Services**

we power it

✓ Call now for free site survey and health check

✓ World class impartial advice saving you time and money

✓ Nationwide 24x7 sales and engineering team

Up to
10%
cash-back
on all Eaton
products
until 31st
December 2015

One Supplier
Providing turnkey critical power solutions, including: **design, installation and maintenance.**

Call sales: 0800 978 8988
24 hour service: 0845 519 3928
e:sales@criticalpowersupplies.co.uk
www.criticalpowersupplies.co.uk

critical
POWER SUPPLIES

APPLICATION FOCUSED | CUSTOMER DRIVEN | SERVICE ORIENTATED

Emergency service

The ambulance, fire and police services need IT and communications networks that we can all depend upon, especially when it comes to dealing with life and death situations.

Fire chiefs outsource IT to Quiss Technology

The Chief Fire Officers Association (CFOA) is the professional body for fire service personnel above the rank of assistant chief officer. Based in Tamworth, it was formed in 1974 and some of its IT systems are now old, including much of its customised software which is well out of date.

The CFOA therefore needed to replace its legacy systems and replace them with new bespoke services. Much of the organisation's IT used to be in-house, and this was also something the association wanted to change.

It asked local firm Quiss Technology to manage its IT and help reduce its dependence on custom software solutions. Quiss says it has considerable experience dealing with the IT requirements of fire and rescue services nationwide. Matt Rhodes, the company's commercial services manager, says Quiss had previously worked with both Warwickshire Fire and Rescue Service and the Northamptonshire Fire and Rescue Service, and had been recommended to CFOA, where much of the work was of a "more technical nature".

The firm designed a flexible IT service for the association which not only cut down its reliance on proprietary software, but also supported the in-house IT team.

Rhodes says outsourcing IT support takes the pressure off the smaller in-house team at CFOA, which can now concentrate on improving efficiency and service quality, leaving any support issues for its 20-plus users to Quiss' helpdesk team (pictured below).

"Recent additions to our team now offers clients access to more than 30 IT professionals, experienced in solving problems remotely, with 21 helpdesk staff supported by senior engineers and

managers who have seen and heard it all before. I know providing this level of support was a major factor in the decision of CFOA to outsource their support to us."

The association aggregates huge amounts of data in its role as the professional voice of the UK fire and rescue service. It regularly distributes news, views and opinions within the sector, and helps develop the skills and personal experience of current and future managers – which requires a lot of information to be collected, evaluated and disseminated.

"We are helping the CFOA introduce mainstream applications, like *SharePoint* in place of the bespoke programmes that have shown interoperability issues, limiting their ability to share information effectively," says Rhodes. "Resilience has been improved, with our 'ship-to-site' disaster recovery solution. This ensures new hardware is available within hours of a major disaster, allowing the association to be back up and running quickly at any location with a suitable internet connection."

Sepura designs data app for TETRA users at GMP

Like all police forces across the UK, officers at the Greater Manchester Police (GMP) were having to fill in a substantial number of forms during their day-to-day work, especially if it involved any interaction with the public. The force therefore decided to adopt a new approach.

The GMP has been using Sepura's radios since the introduction of the UK National TETRA network more than a decade ago. So it asked the vendor if it could develop a way of capturing the information that usually had to be written on paper forms via the radios.

Sepura's experience with public safety organisations around the world, meant they were open to the idea of doing something innovative and ground-breaking.

"Sepura showed a willingness to invest time and effort to help us make full use of the data capabilities of its radios in addressing the stop and search requirements," says chief inspector John Buttress of the GMP.

"They understand how police forces work and produced an innovative solution



for faster data capture that's cost-effective and helps improve officer safety."

To begin with, the GMP simplified its data into three responses: the reason why a person was stopped (the 'object'); the relevant law under which he or she was stopped (the 'power'); and their ethnicity.

Sepura then came up with a solution based on a short data application (SDA) transmittable over TETRA handheld radios. The company says SDAs offer menu-based prompts that drive a simple digital process to communicate tasks and gather data. It adds that the application is already used in other sectors, such as manufacturing.

According to Sepura, the system makes data entry as simple as using a smartphone. It is also more accurate and cuts down the amount of time officers need to spend in potentially dangerous situations.

Greater Manchester Police tested the SDA in its Bolton division, and was monitored by police forces across the UK. The pilot is said to have showed "significant police management advantages" in using the new system and the force will now move to full-scale adoption. It is currently training all its officers to use the Sepura SDA, and calculates that it will generate savings in the region of £700,000 a year.

Ambulance service saves £500,000 with Vodafone UC

South Central Ambulance Service (SCAS) was created out of the 2006 merger of four ambulance trusts in Berkshire, Buckinghamshire, Hampshire and Oxfordshire. Its 2,500 staff cover a population of more than four million residents across an area of 3,500 square miles. In an average year, SCAS'

emergency control centres deal with over 450,000 calls for assistance.

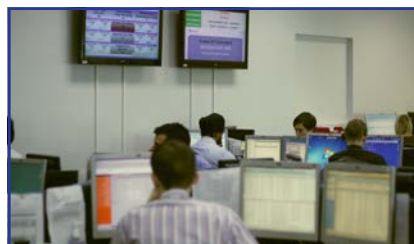
Since its creation, the service has been working to replace four legacy IT and telecoms systems with a single streamlined platform. It inherited several telecoms providers, covering both fixed and mobile services, and wanted a single supplier who could not only provide a resilient and integrated fixed and mobile communication solution across its footprint, but also ongoing strategic advice for added value and support.

"We knew that there were some immediate benefits to be enjoyed from rationalising these services, but it was important to look beyond these to explore longer-term opportunities," says Vince Weldon, associate director of information management and technology.

"We have a largely mobile workforce and we needed to remove the barriers between working at a desk and working on the move. We have already issued new *BlackBerry* smartphones to team leaders that not only allow them to send and receive email but also to review data in real-time to ensure that we are meeting our performance targets."

SCAS appointed Vodafone UK as its communications partner to provide fixed line services and mobile connectivity, together with infrastructure support and maintenance for the emergency contact centres. SCAS estimates that unifying its communications will deliver savings of £500,000 over the next five years. It will also improve efficiency, with the consolidated platform helping employees to get in touch with the right person more quickly.

One area SCAS is keen to explore with Vodafone is electronic patient reporting. This has been proven to improve outcomes for patients by ensuring that both paramedics and receiving hospitals have access to up-to-date information on a hand-held device.



5th Anniversary

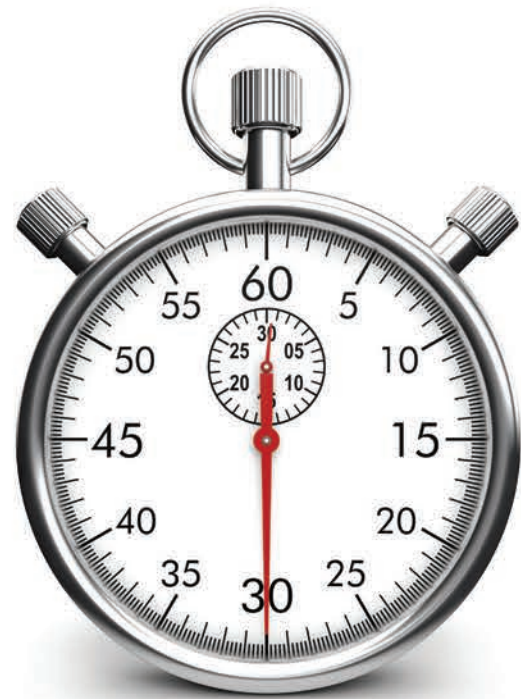
Recruiting your Dream Team?

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

READY TO ASSEMBLE SOLUTIONS
AS DYNAMIC AS YOUR BUSINESS

THAT'S THE CRITICAL DIFFERENCE.



Improve deployment speed and control cost in your IT applications
with the InstaRack™ LAN



The InstaRack™ LAN is a modular rack enclosure which can be assembled or disassembled in under 30 minutes. Frameless architecture allows for optimal cable management and vertically separated panels provide fast and easy access to installed equipment. The rack is shipped assembled or in a flat pack. Dynamic solutions that match the pace of your business.



Learn more at
www.EmersonNetworkPower.eu/InstaRack-LAN

Emerson, Consider It Solved, InstaRack, and Emerson Network Power are trademarks of Emerson Electric Co. or one of its affiliated companies. ©2015 Emerson Electric Co. All rights reserved.

EMERSON. CONSIDER IT SOLVED.™

Securing the machines

The UK's first IoT network is nearing completion and uses Arqiva's nationwide sites and hardware from French IoT specialist SigFox. It also connects to the international IoT network that SigFox has created in other countries such as Spain and the Netherlands.

The Internet of Things needs a new approach to network security and will fail without Identity Relationship Management, according to NEIL CHAPMAN.

People are throwing around the term 'Internet of Things' these days, but what do they really mean? In case you've been meaning to ask, here's what you need to know: The Internet of Things (IoT, also known as machine-to-machine or M2M) includes everything that connects to the internet, encompassing an ever-expanding variety of devices such as fitbits, home security systems, biochip transponders on animals, heart monitoring implants, RFID tags on inventory items, automobiles with built-in sensors, and more.

The connection of these devices with the internet and their interconnection with each other is likely to enable advanced applications and unforeseen advances in virtually every industry. The IoT can offer new levels of adaptability, new top line revenue, and unprecedented velocity.

The market predictions are huge. According to Gartner, there will be nearly 26 billion devices on the IoT by 2020; analysts at IDC expect IoT spending will be \$7.3 trillion by 2017, while Cisco's John Chambers recently blogged that he believes it could be as large as \$19 trillion by 2020.

But this opportunity comes wrapped in a huge challenge: the number of identities you need to manage quickly proliferates beyond anything that most identity platforms can handle.

Back in the day, a company might have had an identity access management platform (IAM) that could manage 10,000 identities, totally covering every employee and up to 2,000 partners (one device each, remember). But now that each employee or partner uses

three or more devices (their PCs, tablets, and smartphones) that IAM isn't performing so well. And it becomes completely obsolete when you consider today's digital transformation in the age of the customer.

To manage millions of identities and dynamically engage users while protecting their privacy and your business, you need something radically different.

So while all the speculation of the IoT's economic promise means it's too good an opportunity for businesses to pass up, it's time to temper the information-everywhere enthusiasm with the privacy protection that organisations and individuals demand. Without it, the IoT will only be a shadow of its potential.

Even more importantly, the technology that provides user privacy is also the technology that unleashes the possibility of transformative, personalised IoT services.

Delivering transformative IoT services

It's no surprise that the IoT is resulting in a new category of cybercrime. A recent example is the smart LED light bulbs that leaked Wi-Fi passwords. You may recall a report last year about how experts from Context Security showed how easy it was to hack into the Wi-Fi network of LIFX brand bulbs and control the lights remotely via a smartphone. The manufacturer has since fixed the flaw, but what does a hack of such a device mean?

We haven't seen one with devastating consequences – yet. But even relatively minor hacks can cause inconvenience for the user. Worse, these vulnerabilities break the customers' trust and tarnishes a company's reputation which can irreparably damage a business.

Digital identity that factors in context, is modular, highly scalable and flexible, is the key to protecting organisations and users while at the same time delivering transformative services in the era of the IoT. Identifying who's who and what's what has never been so complex, and without the right identity model in place, your organisation could be at risk of making your data – and your customers' – openly available to the bad guys.

But identity that factors in context and scalability for the proliferation of users, devices and the IoT are beyond what traditional IAM products can deliver. They were designed for a much more restricted environment, and their perimeter approach, with data behind a firewall, is obsolete. Plus, they were designed to handle multiple thousands of identities – in the era of the IoT you need to manage millions. Static and portable devices need to communicate with each other and there's also human-to-machine and machine-to-machine identification and interaction to take into account.

To embrace the IoT and leverage it for a competitive edge, approach the challenge of identity services from a new angle.

First, with so many external users, you'll need to drop the classic 'castle defence'

mentality. Instead of sitting behind the firewall, identity systems need to manage information beyond the wall at internet scale. And they need to do more than toggle simple 'yes/no' authorisation or denial of access. Start looking for identity systems



"It's time to temper the information-everywhere enthusiasm with the privacy protection that organisations and individuals demand."

*Neil Chapman,
SVP & MD EMEA/International,
ForgeRock*

IT'S HERE!

Introducing the Riello Multi Power Modular UPS

Designed to protect the most
critical IT infrastructure

- Flexible
- Scalable
- Efficient
- High power density
- Low TCO
- Best in class
- Up to 28 x 42kW Modules
- Over 1MW of Power
- 400kW/M2 with redundancy

The most advanced data centre
UPS product yet

For a product preview, contact the
Riello team on 0800 269 394
email sales@riello-ups.co.uk

riello ups

Reliable power for a sustainable world

Follow us on Social Networks



Reliable power for a sustainable world



11-12TH MAY
**DATA
centres**
North

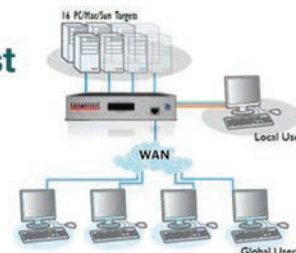
Come and visit
us on stand A8
at Data Centres
North to find
out more

www.riello-ups.co.uk

KVM CHOICE

Total Control in Computing

KVM Choice – Specialist
suppliers
of computer control
equipment



As a key distributor of all the brands below, let us supply all
your data centre needs including KVM, PDU's and racking:

Raritan.

ADDER

ATEN
Simply Better Connections™

**ROSE
ELECTRONICS**

RITTAL

TRIPP-LITE
POWER PROTECTION

**IEC
LOCK**

PDUeX

GAMATRONIC™
Our Power Your Confidence

Smart-e

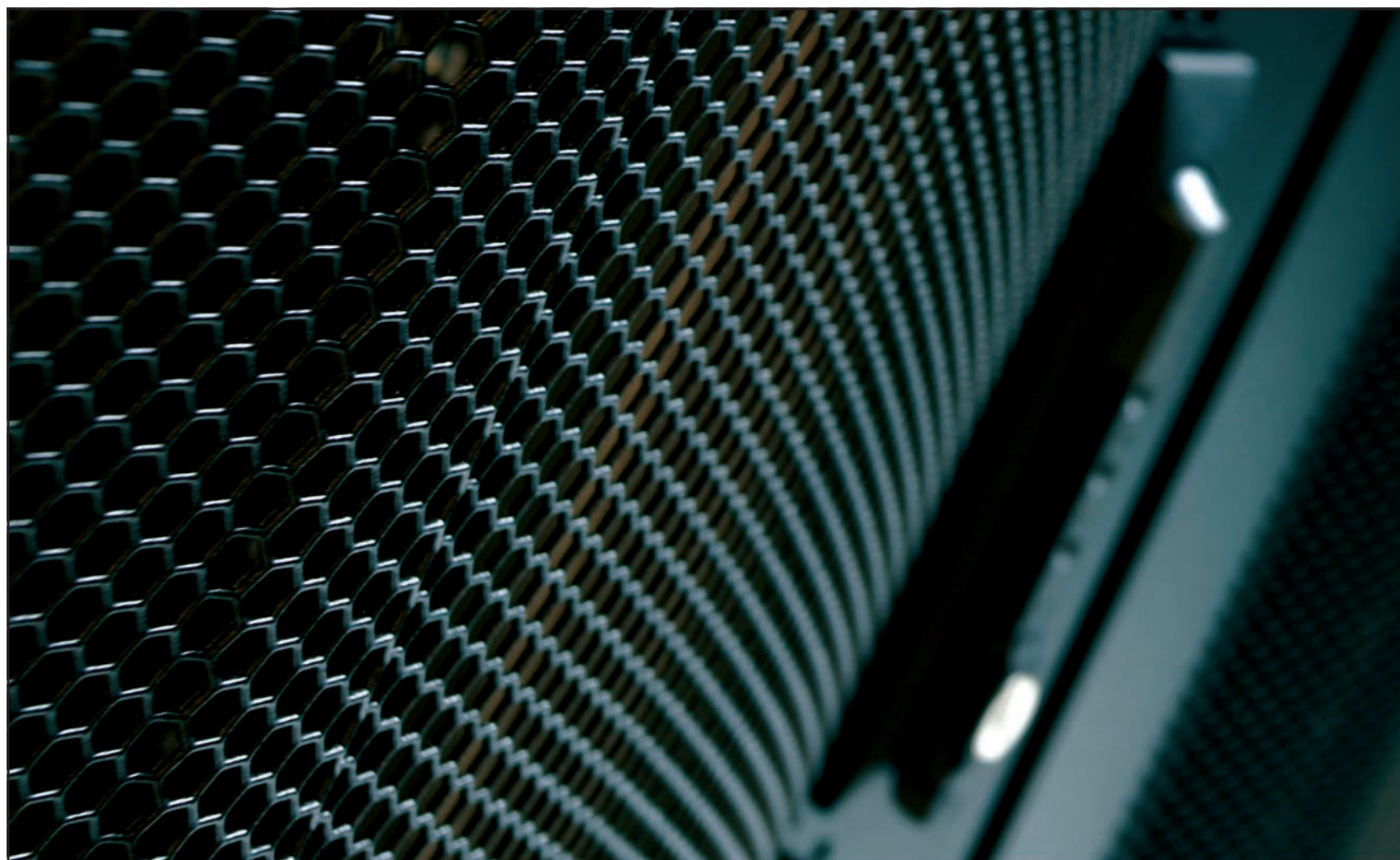
PatchSee®
Optical Technology

HighSecLabs
Highest Security Solutions ••• Ltd.

To secure the latest competitive costs and
for immediate delivery contact us now!



Tel: 0845 899 5010
email: info@kvmchoice.com
www.kvmchoice.com



01923 698230 | sales@prismenclosures.co.uk | www.prism-online.co.uk

prism™
enclosures committed to better

that are business enablers, facilitating relationships between each 'thing' and its user. Such systems should provide agility, flexibility and scalability to adjust the services offered in response to context such as geographical location, time of day, and multiple other factors.

Recognising the inadequacy of IAM, organisations of all sizes are abandoning it for Identity Relationship Management solutions. IRM is designed to help businesses manage user and thing identities and keep services secure and readily available. It does so by delivering dynamic identity management that is based on the following four key attributes:

Modularity: IRM platforms need to be modular, and preferably designed as an integrated, cohesive stack that is purpose-built to handle the complexity of multiple users, devices, access points, and privileges.

At the same time, they need to be able to encompass legacy applications and services. Modular, open platform solutions are well suited to connecting with virtually any device or service while supporting old and new versions of each device or application.

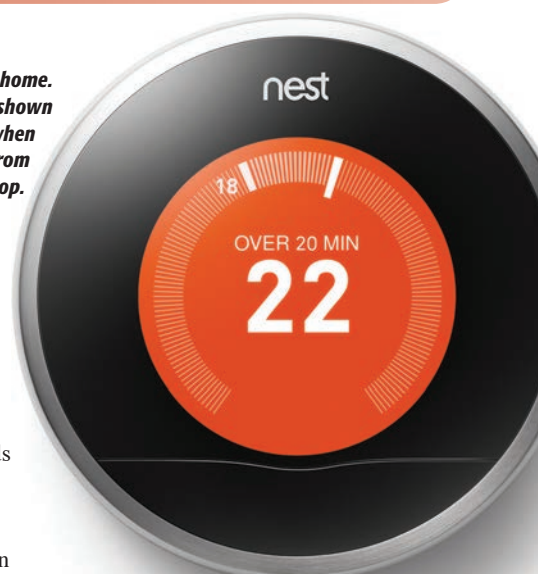
Internet scalability: digital businesses work at internet scale which means that the number of users can expand exponentially from thousands to millions worldwide. The identity system needs to be scalable and dynamic enough to deal with these changes and serve content regardless of location – while being aware of the difference location might make in the type of services available and the way they are delivered.

Borderless services: the IoT is connecting everywhere, all the time. IRM needs to provide 'borderless' and secure access to applications wherever they are stored – on premises, in the cloud or both

The IoT will be everywhere, including your home. For example, the Nest learning thermostat shown here programmes itself, turns itself down when the house is empty, and can be controlled from anywhere via a smartphone, tablet, or laptop.

– from any internet-connected device, anywhere.

Context awareness: context was barely a consideration with traditional IAM but it is a critical differentiator for companies delivering digital services. IRM can help you better engage with stakeholders based on context and behaviour. As such, it needs to be intelligent enough to evaluate different circumstances and make the best judgment, for example, by using adaptive and multi-factor authentication when a user logs in from a typical device or region.



Connecting your mindset

IRM provides open, evolving and confidently secure identity solutions for customers, partners, and other important stakeholders both inside and outside of a company. The ideal platform should include all aspects of identity lifecycle management, encompassing identity administration, access management and identity data stores, and should also be capable of defining and establishing relationships between all those identities.

In this way, attributes, context, and behaviour can all be analysed – both for security purposes and to improve customer engagement, as well as to create new revenue-generating opportunities. As a recent Gartner survey found, CEOs have "growth" among their top three business priorities and are heavily investing in their digital business to achieve this goal, and IRM is playing an increasingly significant role. Yes, it's a new way of thinking and acting, but is one that will protect your business and help it grow. To ensure security in the era of the IoT, the following should be considered:

Think external, not internal: it's not just about keeping a close eye on what devices employees are connecting to the network. You need to authenticate external contacts and clients. Each user could potentially want to access your systems with multiple devices and expect an experience that is tailored to how, when, and where they are accessing your services.

Use a unified identity platform: this will provide a simple, repeatable way to protect a growing number of devices. Trying to duct-tape architectures or protect access on a device-by-device basis is not going to work effectively (if at all).

Use open standards and technologies: the identity platform needs to be reachable in a standardised way, whether the communication comes via a human or a machine. If your platform supports open standards and technologies, use them.

Analyse real-time behaviour and context: ensure data is being encrypted and authenticated when it's communicated between IoT devices. Check the location, time and device to ensure requests to connect are valid, warranted by legitimate business need, and consistent with past behaviour.

Savvy organisations will make it a priority to lay the technical foundation to accommodate the rapid growth of the IoT and exploit it for business advantage. IRM should be a key part of that foundation, especially as more organisations are exploring ways to address digital transformation.

With IRM in place, you can readily identify and authenticate the exploding number of devices connecting to your networks – and as a result, ensure user security, improve user experience, protect valuable data, and learn more about how users interact with your services to identify new opportunities. ■



NEED a Power Distribution Unit?

Over 1000 standard products



...but specials are our speciality



...and not just PDU's

COME DIRECT TO THE MANUFACTURER
www.pduonline.co.uk

pdu ONLINE

E: sales@pduonline.co.uk | T: 01527 759838



Arqiva powers ahead with UK's first IoT network

The IoT looks set to become an inevitable part of the UK landscape, as ABDUL MONTAQIM discovers.

Arqiva has almost completed the creation of the UK's first nationwide IoT network. The company began the project in May 2014 after signing a deal with French IoT specialist SigFox, which already has several M2M networks in other countries. (Also see *News*, Dec 2012).

While Arqiva has the sites and the infrastructure in the UK, SigFox provides the equipment – such as base stations and antennas – as well as the radio transmission technology needed to securely transport data. SigFox also connects the UK IoT network to its IoT infrastructure in France and beyond.

Arqiva's plan was to initially connect 10 of the country's largest cities to the IoT. The cities it has been stitching together include Birmingham, Bristol, Edinburgh, Glasgow, Leeds, Leicester, Liverpool, London, Manchester and Sheffield.

"We're making excellent progress in deploying the network across the 10 major cities in the UK," says Sean Weir, business development manager at Arqiva. "Work is ongoing to cover around 90 per cent of every one of those cities. That's the first phase of implementation of the network and we'll complete that over the next couple of months."

While Arqiva has now decided which cities it will hook up next, it refused to name them. However, Weir did point out that "Wales could do with an IoT network".

The firm was also reluctant to reveal how much the network has so far cost to build. Weir says it will take six months to a year to determine whether some of the projections in the company's business plan are realistic or not.

He believes the IoT will become an inevitable part of the UK landscape, and will expand quickly in the next few years once businesses realise there are billions to be saved by using it.

Arqiva is currently looking at using the network with large facilities management companies to monitor industrial premises and turn them into "intelligent buildings".

"There's a range of applications that we are discovering now for putting simple devices into buildings that don't have more sophisticated building management systems. At the moment, they employ a manual workforce. At night, for example, security people go around to see if all the lights are off, check the car park to see if the cars are there or not there, and they're under obligation to check the hot water coming out of the taps to see that it's the correct temperature," says Weir.

Again, he declines to be specific about which companies Arqiva is talking to because of various non-disclosure agreements. But he does say that the devices the firm is developing include ones that can not only monitor the conditions inside buildings, but can also be used to change and maintain them.

Can cyber criminals hack the IoT network and even control the machines? While it's impossible to stop the most determined, tech-savvy and well-financed criminals, the IoT could possibly prove a tougher nut to crack. Thomas Nicholls, SigFox's head of marketing and communications, says: "The main point to note about the security aspect of [our] network is that we do not understand the data that we transport. Someone who wants to get access to data being sent to and from devices running on the SigFox network would never, in no way, be able to get that sort of information."

"Each individual customer will do their own encryption, their own data format, and they do not share that with us. We give each customer a 'container', if you like, and they put their encrypted data in that container. We then take that

container and put it in our own container (the SigFox protocol) on our network, and these are secured by us using encryption."

Weir is also keen to point out the security strengths of Arqiva's IoT network. "One of the key things about security on an ultra-narrowband network is that when you're only sending 12 bytes of data over our network, it's a small packet of data, and it's extremely difficult to intercept that data."

"The network also has additional security features. There's authentication, it doesn't replay messages, and it does what's called 'frequency hopping'. So one message is sent on one frequency and then hops to another frequency, which means it's very difficult to keep on finding which frequency you should be on in order to intercept the messages. That also makes it extremely difficult to jam the network." ■

We empower businesses to realise the full potential of IoT

Your wireless data solution is more than just data connectivity. We understand that.

So we not only built the world's most advanced global wireless data management platform and private managed network, we also built our business upon the most important connections of all – our relationships with our partners, carriers and customers.

That's why Wyless is the trusted provider to our partners and the trusted solution for Fortune 500 companies and startups alike. We're the easiest company to work with.

We listen to our customers and take pride in every connection. Wyless offers truly uncompromising LTE, 3G, and 2G data solutions, delivering worldwide wireless connectivity over the most secure and resilient private managed network infrastructure delivered in partnership with 20 Tier 1 MNOs in over 120 countries. We provide unrivaled management tools and empower you with end-to-end managed services, technical expertise and dedicated support. So connect with the experts and together we'll take your applications to the next level. You have found your true IoT (Internet of Things) and broadband data partner.



www.wyless.com

info@wyless.com T: +44 1895 454 699



"We're making excellent progress in deploying the network across the 10 major cities in the UK."

Sean Weir,
Business development manager,
Arqiva

off-the-shelf: UPS

Stay visible off grid

Incorporating some of the latest advances, these uninterruptible power supplies can give your organisation the power to succeed.

Borri claims its *B300 Rotation* series uses the “most technically” advanced UPS components available.

The company – which re-branded to Power Control Ltd earlier this year (see *News*, Jan 2015) – says its latest line of interactive, high-performance backup power solutions is capable of achieving up to 97 per cent operational efficiency, and offers a 0.9 output power factor. Models offering up to 3kVA are available.

According to the vendor, the *B300 Rotation* is designed for “maximum flexibility”. It features rack mountable and floor standing ergonomics, and can achieve expandable runtime through easily connectable, external battery modules. Further functionality is also offered through the unit’s ‘hot swappable’ internal batteries which are located

in a separate enclosure to allow the user to safely change over batteries without the need for a power down.

In addition, the firm says users can also benefit from extended battery life thanks to the inclusion of an AVR (automatic voltage regulator) which controls the exact output voltage without switching to battery power under varying input mains voltages.

The *B300 Rotation* series comes with interactive software that is compatible with a wide range of operating systems including Windows, Linux, IBM and HP, as well as virtualised platforms such as VMware’s.



Eaton’s high efficiency range now extends up to 1100kW with the introduction of the *Power Xpert 9395P*.

Compared with the previous version, the firm says the new model delivers more power in the same footprint thanks to an increased efficiency in double conversion mode of 96.3 per cent and greater power density. As a result, Eaton claims the *9395P* offers 10

per cent more power than its predecessor, leading to significantly lower operational costs and a ROI within two to three years. In addition, it says 18 per cent less heat is produced during operation, thus reducing cooling needs.

To guarantee such high efficiency, even when UPS load levels are low, the device uses Eaton’s *Variable Module*

Management System which is designed to optimise the load levels of power modules in a single UPS (or in parallel UPS systems) by suspending extra capacity.

On top of that, the firm’s *Energy Saver System* technology suspends power modules when power conditioning is not required and feeds the power through the static bypass switch. Eaton claims this increases efficiency to 99 per cent. It adds that the *9395P* is ready to switch to double-conversion mode in less than two milliseconds.

Other features include the vendor’s patented *Hotsync* load-sharing technology. This aims to guarantee safe and reliable operation by synchronising parallel power modules and UPSs without the need for a communication link or synchronisation signals.

Additionally, one static switch per UPS ensures full bypass capacity is achieved im-

mediately and power modules can be added as loads increase. Users can specify the number of power modules per UPS, specify preferred bypass capacity and topology, add modules as the power load increases, and choose the layout that suits their installation.

The *9395P* is designed for continuous operation at ambient temperatures up to 40°C without de-rating.



The *Trinergy Cube* features high power density cores, optimised efficiency at partial load conditions, and hot scalability, according to **Emerson Network Power**. The vendor claims its latest model can reach up to 3MW in a single static UPS, enabling “extraordinary” capacity levels previously only achieved by rotary UPS solutions.

Emerson reckons the extreme high-power density within the single unit ensures that data centre managers can overcome space constraints and ever-rising real estate costs, as well as optimising TCO.

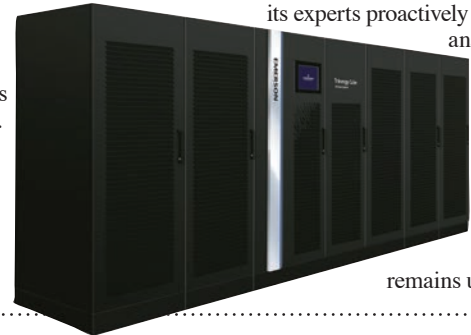
It says *Trinergy Cube*’s design is “extremely flexible” as it is scalable up to 20MW in a parallel system. The device is designed to be

easily configured in L-shape or back-to-back to suit the layout of a wide range of installation spaces. Emerson adds that its average operational efficiency is 98.5 per cent while maximum efficiency is up to 99.5 per cent.

All of this is complemented with advanced diagnostic capabilities, delivered via the company’s *LIFE* remote management and preventive monitoring service. From dedicated *LIFE* service centres, Emerson says its experts proactively measure and

analyse equipment data for maintenance, optimising load uptime, and ensuring that the critical power protection system

remains up and running.



Keep the Power on

- UPS & Surge Protection
- UPS Long Runtime Solutions
- Emergency Lighting Products
- Industrial AC & DC Solutions
- Telecommunication Products
- Frequency & Voltage Converters
- Rackmount, Indoor & Outdoor Cabinets
- Voltage Stabilisers
- Batteries
- Generators

BPC
The British Power Conversion Company

BPC House
Romsey Industrial Estate, Greatbridge Road
Romsey, Hampshire SO51 0HR
Tel: +44 (0)1794 521200
Fax: +44 (0)1794 521400
email: sales@bpc-ups.com
www.bpc-ups.com

ISO 9001 CERTIFIED ORGANISATION
CE VMT

Schneider Electric’s recently unveiled *Galaxy VM* is a three-phase UPS that is said to reduce energy costs through its innovative 99 per cent efficiency *ECONversion* mode. This includes input harmonic correction and also combines the advantages of double conversion on-line and advanced ECO mode technologies. According to Schneider, this all results in a UPS that operates at the greatest efficiency without putting data centre loads at risk.

The *Galaxy VM* also offers flexible energy storage solutions with swappable modular battery modules and fans that can be replaced without the need to go to maintenance bypass, thus increasing availability and load protection.



Designed to integrate into existing electrical, physical and monitoring environments, the unit works with Schneider’s *StruxureWare* DCIM software applications, building management systems and Modbus protocol. It has a paralleling capability of up to five units for redundancy and up to four for capacity.

The firm adds that the UPS’ “ease of installation” is enhanced by a “highly compact” footprint (77.56 x 39.45 x 33.62 inches) allowing for top and bottom cable entry. It also features integrated castors for ease of mobility, while back-to-the-wall installation which requires zero clearance enables deployment in seismic zones. The unit can be easily configured using Schneider’s *ISX Designer* configuration tool.

Socomec has now completed its *Green Power 2.0* family with the totally modular and fully redundant *MODULYS GP*. It reckons the new UPS, which operates at 50-600kW, not only ensures the highest levels of power availability and scalability for critical IT infrastructure, but also provides the necessary margin for unforeseen evolutions in the design of secure infrastructure projects.

Socomec has designed the *MODULYS GP* around a system of redundant double conversion modules. It says the interconnected power and hot-swap battery modules mean easier installations and also offer flexibility for future power upgrades.

The architecture, incorporating what the vendor describes as

a “Forever Young” concept, combines a user-friendly system with the rapid implementation of many associated professional service packages. For example, maintenance operations can be carried out safely without interruption to the load. The system can also be upgraded at any point of its operational life cycle.

MODULYS GP integrates all of Socomec’s *Green Power 2.0* technology, including optimum VFI output and unitary power factor which are said to offer the highest power density currently available.

The vendor adds that in a first of its kind on the market, the MTBF value of the power modules has been certified as having the highest ranking on the market by an independent body (IEC 62380).



BT to create 1,000 UK jobs

BT is aiming to boost employment in the UK with the creation of 700 new apprenticeships and 300 graduate jobs for young people this year. Recruits will work in a variety of areas, including IT, software development, engineering and digital technology.

The new posts will be created across the country in areas such as London, Glasgow, Belfast, Cardiff, Newcastle, Manchester and Leeds. A third of the new apprentices will be recruited into Openreach and will focus on extending and improving BT's fibre network.

A large number of the apprenticeship and graduate intake will be based at the firm's research campus at Adastral Park near Ipswich. BT says many of them will therefore be working on projects developing the future of broadband, broadcasting, wireless and mobile technologies.

For instance, the company recently announced its aim to transform the UK broadband landscape from superfast to ultra-fast using its *G.fast* technology. This is being developed at Adastral Park, and BT says it will help deliver broadband speeds of up to 500Mbps to most of the UK within a decade.

A number of apprentices will also be given the chance to study for degree courses starting this September. Careers in business analysis, software engineering and technology consultancy will be available at BT as part of the new Government and industry-backed scheme that integrates degree level academic learning with practical on-the-job training.

"The UK's future as a technology leader hinges on young people getting the skills, support and training they need to create successful careers in science, engineering and IT," says BT chief executive Gavin Patterson. "These new recruits will have the opportunity to work in fields such as technology research, engineering, IT and TV, helping to create and build the next generation of communications technologies for the UK."



Many of the new apprentices and graduates will be based at BT's research campus at Adastral Park.

Daisy wants techies who stand out from the IT crowd

In a bid to give the industry's reputation a boost, business communications and IT firm Daisy Group has teamed up with UK charity Computer Aid International to find the best role models.

With names like 'computer geeks' often used to describe those working in IT, the company says it's easy to see why the industry struggles to attract interest as a career path from young people.

Daisy Group CTO Nathan Mark says: "Whilst TV shows like *The IT Crowd* raise the profile of certain types of career path, they don't really dispel the myth that we're all socially awkward 'geeks'. So we're looking for people working in the industry with interesting jobs and a little

charisma to step forward and challenge the stereotypes by acting as positive role models for the next generation."

Daisy wants people working in the industry to nominate themselves or their colleagues as role models by sending a description of their job, a photo, and an explanation of why they think they qualify. For every valid nomination received, the company will donate £1 to Computer Aid International, the UK-based charity which aims to reduce poverty through practical ICT solutions.

"You don't have to be glamorous, work for a big company, or have an impressive job title to nominate yourself as a potential role model," says Mark. "You simply need to be approachable, enthusiastic about your own job, and able to explain why the computing and IT industry is an interesting place to work."

More details at www.daisygroupplc.com.

NEW COURSES

Three day MBA in Telecoms – Terrapinn Training

This course aims to give delegates insights into the main developments in the telecoms industry and learn how to strategise. It promises to teach participants essential business skills through a "no-nonsense" appraisal of industry trends, so they will be able to make a real and lasting difference to their businesses.

Terrapinn says the course is highly practical, involving the use of simulation tools, exercises, and a realistic and challenging case study. Over three days, students will gain an understanding of telecom networks and technology, and learn how to read financial reports, statements and ratios.

The next course takes place in London on 26-28 May. www.terrapinntraining.com.

SDN demonstration facility – Azlan

Azlan, the enterprise division of Tech Data, is aiming to help resellers get to grips with the concept of SDN by offering them access to a fully-equipped proof-of-concept and demonstration centre at its HP Enterprise Group lab in Basingstoke.

Azlan's team has built the lab to provide a simple way for resellers to set up test environments and demos for customers, and to educate their own sales and technical teams.

HP has been championing an SDN ecosystem approach that provides a simple, agile and automated end-to-end solution for managing the entire network, from the data centre to the branch office and department.

Resellers can use Azlan's facility free of charge by prior arrangement with the HP team. Those who would like to see how HP's approach to SDN works in practice should contact jack.tokarski@azlan.com.



UK's No.1 IEC Connection



Manufactured in the UK

CALL OUR SALES HOTLINE
020 8905 7273



24 HOUR DELIVERY SERVICE

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

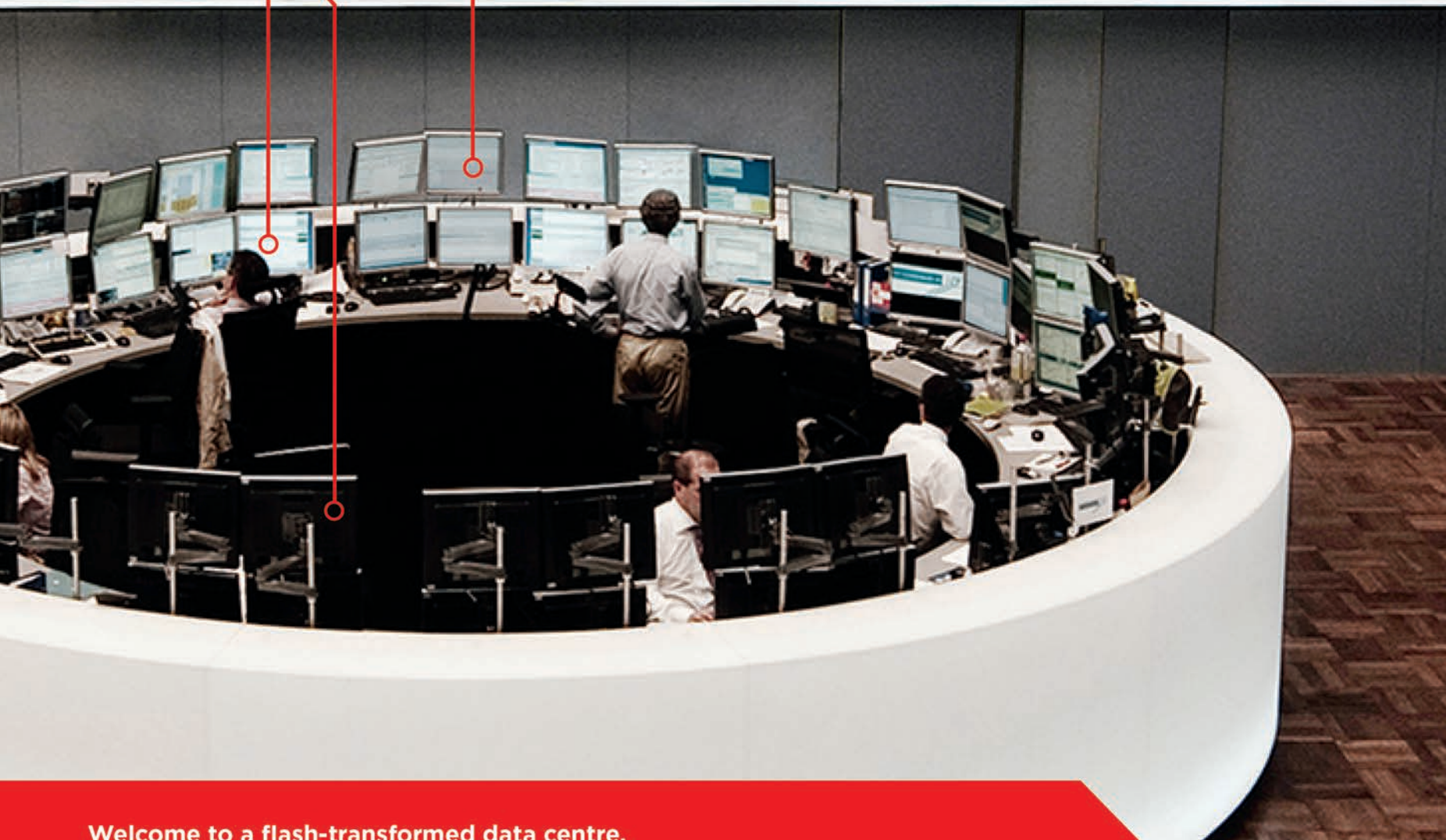


WHEN MILLISECONDS MAKE ALL THE DIFFERENCE TO THE BOTTOM LINE, REAL-TIME ACCESS TO CHANGING MARKET DATA IS A NECESSITY.



YOU INVEST IN SANDISK SSDs. AND BOOST PRICE/PERFORMANCE BY 100X*.

52,440	51,580	51,580	50,470	51,110	13.03	53	1,629	1,609	1,772	1,585	1,746	1+
32,580	32,180	32,905	31,795	32,905	0.325	113	23,190	22,400	25,250	22,220	25,205	1+
03,900	102,500	104,350	100,760	104,350	0.450	81	9,620	9,560	10,155	9,330	9,811	1+
41,980	41,405	42,760	41,295	42,760	0.780	9						1-
23,050	22,705	23,645	22,030	23,575	0.525	23						1-
17,515	17,375	18,200	17,325	18,200	0.685	6	39,285	38,965	40,045	38,450	40,045	1+
93,520	92,400	92,890	90,680	92,890	0.630	15	25,165	25,055	25,660	25,055	25,365	1+
							4,050	4,065	4,174	4,030	4,162	1+
							39,650	39,745	39,745	39,300	39,300	1-
9,182	9,150	9,323	8,997	9,311	0.129	43						1-
19,840	19,880	20,025	19,880	20,025	0.185	2						1-
9,316	9,325	9,730	9,129	9,717	0.401	50	2,490	2,474	2,560	2,430	2,530	1+
3,694	3,665	3,747	3,640	3,729	0.035	7						1-
40,560	40,335	41,620	40,190	41,620	1.060	4	32,580	32,180	32,905	31,795	32,110	1+
							51,580	102,500	50,470	101,110	132,950	1+
							41,980	32,905	42,760	32,905	104,760	1+
59,100	58,500	65,040	57,450	65,040	5.940	133	102,500	22,705	100,760	104,350	23,575	1+
81,040	79,320	84,420	78,600	84,420	3.380	42	17,515	42,760	18,200	17,325	23,575	1+
30,090	29,880	31,905	29,430	31,905	1.815	15	22,705	92,400	22,890	23,580	18,290	1-



Welcome to a flash-transformed data centre.

Despite lower budgets, the need for real-time access to data has only increased, along with demands on IT. But with SanDisk SAS SSDs and a flash-transformed data centre, you can accelerate price/performance 100x. A win-win solution that benefits everyone. That's why SanDisk has been expanding the possibilities of storage for over 25 years. sandisk.co.uk/data

Source: *As compared to 10k RPM SAS HDD with 184 Read IOPS performance and published pricing as of January 20, 2015
© SANDISK CORPORATION 2015. All rights reserved.

SanDisk®