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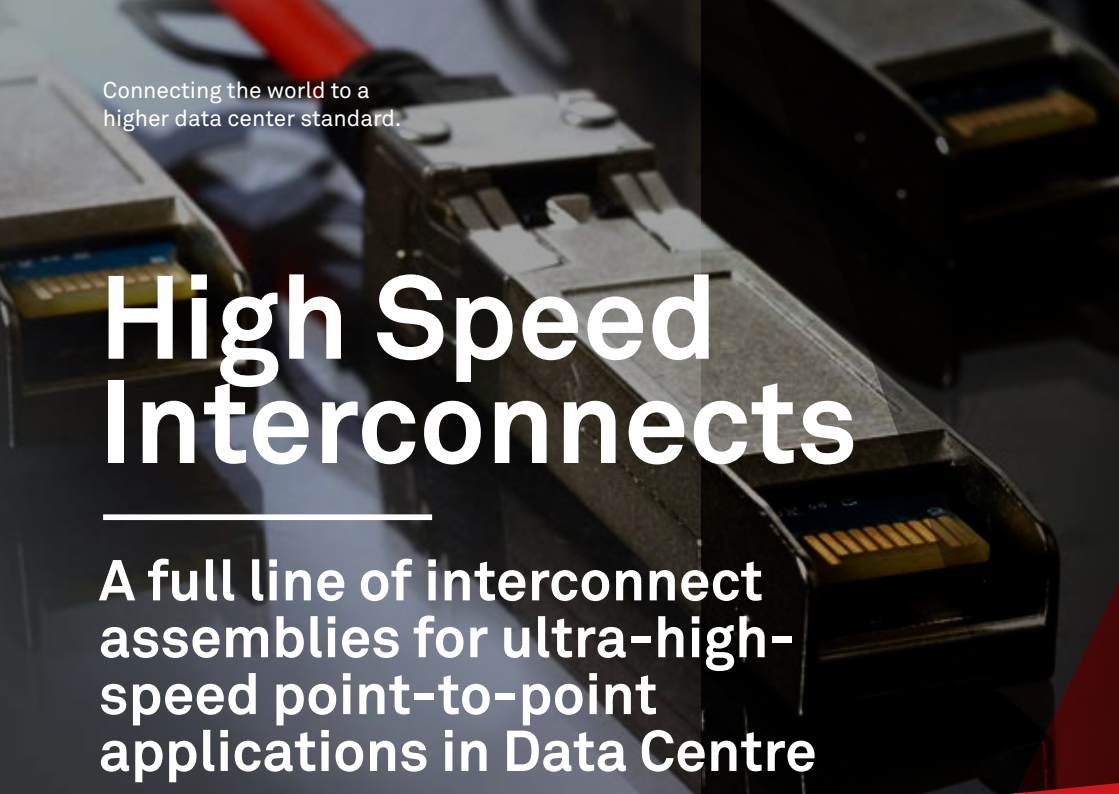## Making the grade

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3

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Hot topic

CHALK HILL MEDIA

6

Since it was introduced just over a year ago the Construction Products Regulation has been the cause of many a furrowed brow for those working in the network cabling sector. Although all parties welcomed the principles behind it, there have been a number of issues with its application that are cause for concern. These range from a basic misunderstanding of the various permutations of CPR compliant cable now available to cases where commercial decisions have been put ahead of standards compliance and the safety of people, property and assets.

So one year on, what has been the impact of the CPR and what must be done to help fulfil its potential? To look at this issue in more depth and assess what should happen next, we've asked a panel of experts to offer their opinions and you can read this month's Question Time by **CLICKING HERE.**

Fire is just one of the dangers affecting the smooth running of network infrastructures in enterprise and data centres, however, in recent years a number of natural disasters have highlighted the precarious situations that mission critical services can find themselves in. Full preparedness for a natural disaster is not a simple proposition but by **CLICKING HERE** you can read Kevin Heslin of Uptime Institute's suggestions for disaster recovery best practices in data centres.

For those of us who have worked in the IT network infrastructure sector for some years, the (mis)fortunes of automated infrastructure management (AIM) have been of great interest. Given that ISO/IEC 18598 makes it absolutely clear that the benefits of choosing AIM outweigh any reasons for not doing so, Rahul Rathod of Nexans examines whether AIM should be considered a luxury or a necessity.

It's been great fun putting together a review of the Inside_Networks 2018 Charity Golf Day and you can see it by **CLICKING HERE.** The amazing sum of over £10,000 was raised for Macmillan Cancer Support and we'll be doing it all over again on 22nd May 2019, so hope to see you there!

With lots more besides the above, I hope you enjoy this issue of Inside_Networks and don't forget, if you'd like to comment on any of these subjects, or anything else, I'd be delighted to hear from you.

R.Shepherd

Rob Shepherd Editor

Inside_Networks
THE NETWORK INFRASTRUCTURE E-MAGAZINE

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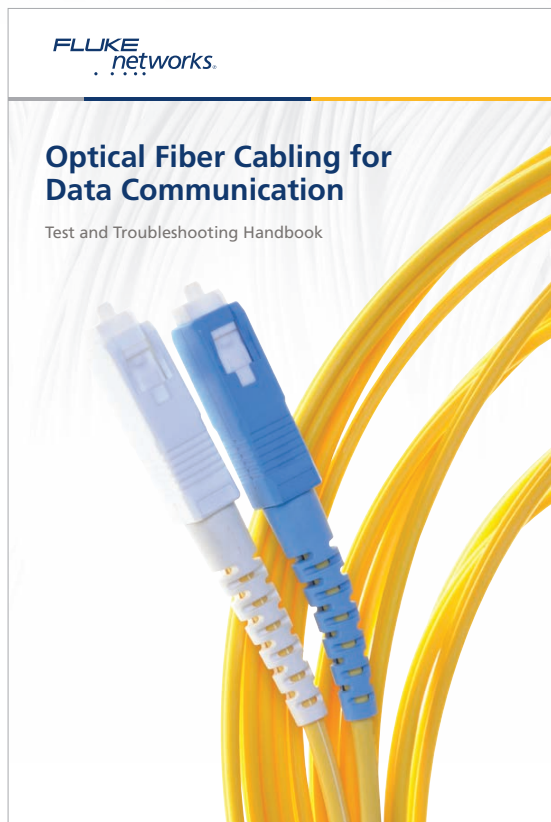
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Four million UK businesses vulnerable to losing company data

Almost a million UK businesses do not back-up their company data and a further 2.8 million firms risk losing valuable information by storing electronic copies in the same location as the original data, according to new research from Beaming.

Beaming's survey of business leaders, undertaken by Opinium, shows that while most (83 per cent) of UK firms back-up their data, half save it to servers or storage devices in the same premises. 44 per cent of small businesses, 42 per cent of medium sized firms and 34 per cent of large organisations currently store back-up information in the same location as it is generated, leaving them vulnerable to data loss through theft, fire or malware attack.

17 per cent of businesses keep no data back-ups whatsoever and store information only on individual computers and employee devices. Sole traders and micro companies employing less than 10 people are most likely to be guilty of not backing up their data. Only a third (35 per cent) of UK businesses currently store their back-up data to outside of the office.

Sonia Blizzard, managing director of Beaming, commented, 'Our research shows that almost four million UK businesses are vulnerable to data loss from single events and could potentially become unable to operate. Most businesses, particularly at the smaller end, don't do enough to safeguard their information.'

Lenovo announced as largest TOP500 supercomputing provider

The Lenovo Data Center Group has become the world's largest TOP500 supercomputing provider measured by the number of systems ranked on the TOP500 list. 117 of the 500 most power supercomputers included in the TOP500 are Lenovo installations, meaning nearly one out of every four systems – 23.4 per cent – on the list is a Lenovo solution.

'Last year we set a goal to become the world's largest provider of TOP500 computing systems by 2020 and we have reached that goal two years ahead of our original plan,' said Kirk Skaugen, president of Lenovo Data Center Group.

Kirk Skaugen

'This distinction is a testament to our commitment to prioritise customer satisfaction, deliver cutting edge innovation and performance and be the world's most trusted data centre partner. We are motivated every day by the scientists and their research, as we work together to solve humanity's greatest challenges.'

17 of the Top 25 top research universities and institutions across the globe now power their research with Lenovo's high performance computing and artificial intelligence solutions.

9

Research claims businesses are spending more on cloud than data centres

New research commissioned by Claranet has revealed that UK IT departments spent more on the cloud in the past three years than they did on data centres. At the same time, the project found that this spend is set to increase significantly over the next three years.

The report – Beyond Digital Transformation: Reality check for European IT and Digital leaders – compiles the results of 750 surveyed IT professionals from across Europe. It found that UK businesses spent, on average, £360,000 on cloud over the last three years, compared to £343,000 on data centres.

Commenting on the results, Michel Robert, UK managing director at Claranet, explained, In light of current economic uncertainty, it is encouraging to see that these efforts to innovate from a technology perspective are continuing apace. However, there is a difference between recognising the need for cloud, and knowing how to actually migrate in a way that ensures maximum benefits without being overly disruptive to the smooth running of the business.'

Steve Foster gets on his bike for double charity challenge

Steve Foster, managing director EMEA at Siemon, has two cycling challenges lined up this summer to raise money for Duchenne Muscular Dystrophy charity, Harrison's Fund. He recently completed The HotChillee Dolomites, which took place over the Giro d'Italia climbs starting at Sella Ronda and finishing with a double ascent up the iconic Passo del Stelvio. At the end of July he will tackle The HotChillee 500km London to Paris.

Foster has been fundraising for the charity over the last three years since his four-year old son, Austin, was diagnosed with Duchenne and has raised over £30,000 towards the charity's work. Foster said, 'On the outside Austin looks like your everyday little boy but he will start to struggle as his muscles deteriorate. We do not want Austin to lose his ability to walk – we want him to lead a normal life and to be able to enjoy life's opportunities.'

Steve Foster

He added, 'Raising money for crucial research into this horrendous disease was what motivated me to start these cycling challenges. We do not have time on our hands, as Austin's muscles will start to fail him over time. Everyone around me has been so supportive of my challenges, especially Siemon, which not only have donated substantial amounts of money each year, but also my global colleagues who have made donations or joined me on my adventures.'

To visit the JustGiving page **CLICK HERE.**

Open Compute Project welcomes first European-based OCP Solution Provider

The Open Compute Project Foundation (OCP) has announced Circle B as an OCP Solution Provider. This makes Amsterdam-based Circle B the first European partner to have acquired this status.

Solution Providers form a special group of companies within the OCP ecosystem. They develop, test, deliver and support ready made systems and environments based on OCP designs. According to recently published market research by IHS Markit, revenue generated from OCP equipment from non-board member companies reached $1.2bn in 2017. For the coming years the researchers predict an average growth for the European market of 70 per cent per year.

John Laban

'A Solution Provider ensures that data centres, telcos and IT departments that do not have their own R&D or DevOps department can still benefit from the advantages that OCP designs have to offer,' said John Laban, European representative of OCP. 'An OCP Solution Provider such as Circle B has the technical knowledge to make sure that an OCP design or a product based on an OCP design properly integrates into a company's IT infrastructure.'

Younger employees identified as main culprits for security breaches in the workplace

More than a third of senior executives believe that younger employees are the main culprits for data security breaches in the workplace, according to a new independent study commissioned by Centrify.

The study sought the views of 1,000 next generation workers (18-24 year olds) and 500 decision makers in UK organisations to discover how security, privacy and online behaviour at work impacts the lives of younger employees and the companies that they work for.

Asked how younger employees could negatively impact the workplace, 47 per cent of decision makers worry about them sharing social media posts and the impact these could have on brand and reputation. Conversely, one in five workers are not bothered about how their social media activity might affect their employers, while 18 per cent freely admit that their posts could compromise employers' security and privacy policies.

Barry Scott

Barry Scott, CTO EMEA at Centrify, commented, 'While it's clear that employers are concerned about this new generation entering the workforce – and see them as a potential risk to both the business and brand – these same companies are perhaps guilty of not putting in place the right security processes, policies and technologies.'

Eaton celebrates MANGO project partnership milestone

Eaton has announced the next phase of its partnership with the research and innovation project MANGO – Manycore Architectures for Next-GeneratiOn high performance computing (HPC) systems.

MANGO was set up to achieve optimum resource efficiency in future HPC applications sensitive to the quality of service, with ambitious cross-boundary exploration of architecture. HPC applications like online video transcoding and medical imaging require power efficiency and a more robust quality of service.

Eaton is helping to achieve the quality of service objective for MANGO by providing a real time monitoring software platform for power, thermal and computing activity and the development of disruptive technologies for low-loss and low voltage power distribution. Eaton committed to physically hosting the complete MANGO demonstration platform that will be able to demonstrate how applications, with an improved balance between the power consumption, performance and quality of service, work in practice.

Cyrille Brisson, vice president EMEA at Eaton, commented, 'Our vision is to look for new ways to improve the quality of life and the environment through the use of advanced power management technologies and devices. Being part of the MANGO project helps us to drive this sustainable innovation and to continue to find new ways to optimise data centres for efficiency and productivity.'

Cyrille Brisson

NEWS IN BRIEF

Kao Data has announced the expansion of its high-speed network capabilities with its connection to the London Internet Exchange (LINX) through its partnership with Ai Networks. As a virtual point of presence (vPoP) it has enhanced its carrier neutral services from the Kao Data London ONE data centre through the UK's most dynamic internet exchange.

Datrium has appointed Tim Page as its chief executive officer.

Gresham College, London's oldest higher education institution, has appointed Richard Harvey to IT livery company professor of information technology.

Imperial College London is now the UK's biggest artificial intelligence (AI) hirer, with its recruitment drive accounting for 7.4 per cent of AI vacancies.

Arvind Mishra, head of application and system engineering at Sterlite Tech, has taken on the position of president of the FTTH Council.

The more the **merrier?**

Hi Rob

According to a quote attributed to the then CEO of IBM, Thomas J Watson Jr, in 1943, he believed that '...there is a world market for about five computers'. Watson may never have said anything of the kind, but that's a different story. If we are to take Watson's words literally and assume he was using the term 'computers' in the sense that we use it today, then of course he was wrong. Or was he?

The early 1940s were crucial to computing, and the first example of remote access computing occurred in 1940 with a demonstration in New York of the Complex Number Calculator, and this was followed a year later by Germany's development of the Z3, the world's first programmable, automatic computing device. In 1941, the UK debuted the Bombe, a computer designed by Alan Turing to decrypt Axis communications during World War II. The world had to wait until the early 1970s for anything that resembled a personal computing device of the type we use today.

So, to put Watson's 'quote' into context, perhaps he foresaw a future where only five large scale computing applications were required, to handle large scale data and functionality of national and international importance. And if that is the case, perhaps he was closer to the truth than has been acknowledged.

In many ways, even though there are so many applications, devices and uses of what might broadly be termed 'computers' now, in broad terms the world is returning to the old habits of having a 'mainframe' system, a large scale, central repository of processing power and data handling capability. Only today, we call them data centres, large scale IT service providers or the cloud.
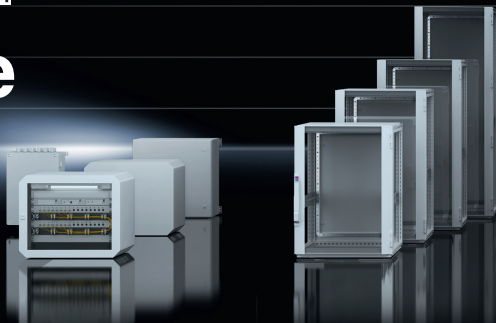
If the period between the 1980s and 2010s saw the explosion of home computing, the internet and technology in general, it could be argued that the

14

world has grown beyond that. The world of technology has become bigger than was ever predicted, the volume of data vaster, and we need bigger concepts to capture these phenomena.

One of the biggest of these big concepts is cloud computing. In one sense, the cloud in all its forms is the modern mainframe, albeit a vast, behemoth, super-mainframe. The cloud, of course, comprises of organised provision, usually in the form of servers, usually housed in a data centre. Are the data centres, therefore, actually the mainframes of today? Are these the super-computers that Watson foresaw?

Alternatively, perhaps we should look to the biggest of the providers to fill this role. The hyperscale cloud providers have brought cloud computing to the masses, through provision of a range of user friendly, easily accessible services. Are the only five 'computers' that the world ultimately needs, to be found among these companies?

Of course, which, if any, of these answers you choose depends largely on semantics and interpretation. The world of technology has changed so vastly since 1943 that it would be astounding if anybody could have predicted the current cloud-based world.

But there really is no doubt that the world is moving back towards centrally managed provision in computing, simply because the volume of data, and potential for its application, is so great. What is more, big data is not the only driving force. Artificial intelligence, machine learning, all of the great events that lie just over the horizon are just as dependent upon well organised data provision as the smallest of businesses, and it's hard to imagine a time when this will not be the case.

Whether this is anywhere close to what Watson had in mind, of course, is another question entirely...

Adam Tamburini
e-shelter

Editor's comment
This is a fascinating argument and does warrant a re-evaluation of Watson's original comment. Let me know what you think.

15

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Under fire

It's just over a year since the Construction Products Regulation (CPR) became a requirement for copper and optical fibre communication cables. Inside_Networks has assembled a panel of industry experts to examine its impact and whether it is being correctly understood and adhered to by manufacturers and distributors

▶ 1st July 2017 was a landmark event for the network infrastructure sector, when the CPR came into force. Although it had been in existence for over 15 years, it was only then that copper and fibre communication cables were included. In light of a number of high profile disasters including Grenfell Tower in London, in which 72 people lost their lives, the subject of the fire performance of construction products has been in the spotlight and its

to approve test results. Products cannot be marked or deemed to be compliant with this regulation unless supported by a notified body certification.

However, the CPR needs to be clearly understood but there have been a number of issues with its application that are cause for concern. For instance, although manufacturers are legally required to correctly classify cables, there is no legal requirement for either manufacturers or

A YEAR AGO THE CONSTRUCTION PRODUCTS REGULATION (CPR) INTRODUCED NEW FIRE SAFETY CLASSIFICATIONS FOR COPPER AND OPTICAL FIBRE NETWORK CABLING. WHAT HAS BEEN THE IMPACT OF THE CPR SO FAR – IS IT BEING CORRECTLY UNDERSTOOD AND ADHERED TO BY MANUFACTURERS AND DISTRIBUTORS, AND ARE THERE CASES WHERE COMMERCIAL DECISIONS BEING PUT AHEAD OF STANDARDS COMPLIANCE AND THE SAFETY OF PEOPLE, PROPERTY AND ASSETS?

introduction was positively welcomed.

The CPR is a legal requirement and therefore mandatory for cable products that are shipped across borders within the EU. The classification of fire performance is based on 'reaction to fire'. BS EN 13501-6:2014 defines seven basic Euroclasses – Aca, B1ca, B2ca, Cca, Dca, Eca and Fca – by reference to the measured results when cables are subject to a range of fire performance tests. A is the most flame retardant and F the least. Manufacturers of cabling systems can opt to self-test or use an external partner to test for compliance, however, all must use a 'notified body'

distributors to insist on their application. Furthermore, there have been instances where incorrect specifications have been used – something that could have disastrous consequences.

Inside_Networks has assembled a panel of experts to assess the impact of the CPR, examine whether there are any loopholes that need tightening up and whether commercial decisions are being put ahead of safety.

Don't forget, if you have a question that you would like answered in Inside_Networks, CLICK HERE and we'll do our best to feature it.

At a time when fire safety standards are under the spotlight and subject to intense scrutiny, it is without doubt that the effectiveness and implementation of the new Euroclass fire safety classifications for copper and optical fibre network cabling are of increasing importance.

Almost 30 years ago, the CPD introduced benchmarks for fire safety. This was a crucial first step in providing assurances around public safety. But fast forward to 2018, and there is now a recognition that whilst industry standards have steadily improved, it is still possible for contractors to ignore the new, more vigorous CPR that replaced the Construction Products Directive, and which now includes fire performance regulations.

These regulations are designed to ensure manufacturers and distributors are controlled in producing and selling cabling that is compliant with Euroclass standards. How, therefore, can we ensure that CPR is being correctly understood and adhered to by manufacturers and distributors?

Herein lies the issue. Manufacturers are legally required to correctly classify cables in line with the Euroclass classifications, but there is no legal requirement for either manufacturers or distributors to insist on their application. Although the new Euroclass classifications have been mandatory since a revision to the standards in 2017, it is important to note that it is only mandatory for contractors to use cabling that meets this classification if the specification provided states that they must do so.

This is a major pitfall of the current regulation. In an industry where contractors are tendering in a competitive market where margins are notoriously low, this poses a moral dilemma for the designer and contractor when undertaking a proposal where no specifics regarding classifications are given. Ultimately, it enables contractors to request that the manufacturers or distributors provide them with cheaper, non-compliant cabling due to this legal loophole.

The answer? In short, it should not only be law for the manufacturer to correctly classify cables as it is now, but for all project specifications to comply with Euroclass classifications. Who becomes responsible for ensuring the specifications adhere to these regulations is open to debate.

'It should not only be law for the manufacturer to correctly classify cables as it is now, but for all project specifications to comply with Euroclass classifications.'

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ANDREW PERCIVAL
MANAGING DIRECTOR AT EXCEL NETWORKING SOLUTIONS

Understood – no. My view is based on the level of educational and factually correct information provided by suppliers compared to when a new performance standard is introduced and the volume of information available. It maybe a simplistic view, but if it's understood it's discussed – if not it's avoided.

Adhered to – yes. Let's remember that CPR is law and any supplier not complying with it runs a significant risk to their reputation. A product that meets the lowest of a range of performance classes means that everyone automatically adheres. This has led to some products being certified for reaction to fire but not for smoke or acid emissions, thereby offering potentially poorer safety characteristics than previous low smoke zero halogen cables. Customers are not made aware of this, perhaps through a lack of supplier understanding.

Lets ask the question in relation to BS6701 A1, which is optional/recommend, rather than the CPR, which is law.

Understood – yes. We accept standards as a source of 'best practice' guidance. BS6701 A1 is clear and recommends a minimum of Cca.s1b.d2.a2, with no matrix of choices, as

seen in the CPR.

Adhered to – no or, at best, 'patchy'. A handful of manufacturers have led with certification, education, and product availability. Uptake from installers is limited, however, to be fair if end users/specifiers don't ask for compliance to A1, and manufacturers/distributors do not offer compliant products, it's pretty difficult to design and install to the standard!

I don't believe many involved in specification and design would say 'I put commercial decisions ahead of safety'. It is a fact, however, that decisions on standards compliance are being made in this way.

Budgets are typically controlled by end users, consultants, mechanical and electrical contractors, and construction companies. These stakeholders are the custodians of adherence to standards. The supply chain servicing their requirements can either comply with specifications issued and educate, or lose business by taking the higher ground.

When a new performance category of cabling is introduced the market accepts in layman terms 'it does more, so I accept it costs more'. We need the market to accept that cables designed to meet the requirements of BS6701 A1, 'do more and therefore cost more'. The sooner we do this, and accept performance improvements often carry a cost premium, the better for all concerned.

To end with a question, should the industry pick and choose the standards it wishes to comply with?

> 'I don't believe many involved in specification and design would say "I put commercial decisions ahead of safety". It is a fact, however, that decisions on standards compliance are being made in this way.'

CHRIS CARRINGTON
SERVICE MANAGER AT DUNASFERN INC AURIGA

Speaking as both an industry professional and a distributor, the impact of CPR has been overwhelming, but unfortunately not in a good way.

Don't get me wrong, from a safety perspective it's vitally important and cannot be compromised, but I am speaking from an implementation standpoint. We're now a year on from the CPR's inception and still there is a distinct lack of clarification, which has led to confusion and a large number of poignant questions that cannot be answered definitively.

Although BS6701 was amended to incorporate CPR standards, the information listed within it is far too open, and can be interpreted differently from one person to the next. The one positive that comes from these grey areas is that there is a lot of engagement at all levels, be it manufacturers, distributors, integrators, end users etc. The engaging discussions, literature and seminars are hugely beneficial because it allows education for all, and nobody is an expert.

As an international distributor we have worked tirelessly with our manufacturing partners on the implications of CPR, and to ensure all of our products meet the required standards. All of our cables have a declaration of performance available and carry the required labelling including CE mark, and the full Euroclass rating showing all aspects of the performance test. We also have ongoing monthly meetings with clients and manufacturers to receive updates on new specifications and products in the pipeline. It's imperative for us as a business to be able to understand the standards, and advise our clients to the best of our abilities.

Tentative figures within the marketplace show that the split in Euroclass sales is around 80 per cent for Eca-Dca and 20 per cent for Cca or above (B2ca). So, although our industry is at the forefront of CPR I do feel that we are being very much reactive, which for something so important is not right. We have a long way to go, but with a lot more engagement to be had we'll hopefully eradicate the uncertainty and achieve a wholly united, acknowledged and documented approach.

> 'We're now a year on from the CPR's inception and still there is a distinct lack of clarification, which has led to confusion and a large number of poignant questions that cannot be answered definitively.'

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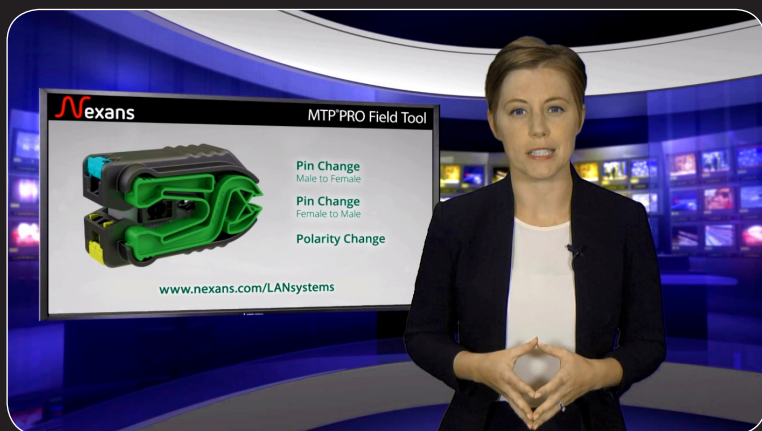
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TONY BENN
SENIOR PRE-SALES TECHNICAL MANAGER AT LEVITON

There are still some misunderstandings surrounding CPR. The EU law mandates that all cables 'placed on the market' must be CE marked to the appropriate EU classification, as defined in EN 50575. It is then left to each EU member state to choose the reaction to fire levels as it sees fit.

Whilst there is no legislation in the UK, the 2017 Amendment 1 of BS6701 states that Cca s1b d2 a2 shall be the minimum requirement for 'installation cables'. Most of the major players, system integrators and consultants have now specified compliance to BS6701, but there are many more that have not. This non-compliance is mostly due to lack of knowledge, but many people are still asking 'how can I not comply?'

As the BS 6701 standard is not legislation, it is possible to use fire risk assessments such as BS9999 to assess the requirements if one is qualified to do so. However, the majority of modern buildings can have interior layouts reconfigured without changing the cables, so such evaluations may be a false economy.

Also, while manufacturers cannot 'place on the market' cable unless it has been tested, certified, and marked in accordance with the CPR, non-CE marked cable may still be sold if it is already on the market. That means that there is still some non-CPR cable in stock being sold and installed today.

Manufacturers and distributors have an obligation to help everyone understand not only the importance of legal compliance to CPR, but the importance of choosing a CPR cable level that will best protect people and buildings in the case of fire, based on environment or application area.

Responsible manufacturers are dedicated to educating installers, distributors, and end users through ongoing presentations, regional webinars, articles and white papers. Leviton has also taken some extra steps to make it easier to deploy CPR cable. For example, our CPR rated copper cable is colour coded to help distributors avoid mislabelling or mixing old cable stock. We also provide thorough documentation, including cable datasheets dedicated for each Euroclassification, and label QR codes that link to the cable's declaration of performance.

25

'While manufacturers cannot "place on the market" cable unless it has been tested, certified, and marked in accordance with the CPR, non-CE marked cable may still be sold if it is already on the market. That means that there is still some non-CPR cable in stock being sold and installed today.'

KEITH SAWYER
TECHNICAL SERVICES DIRECTOR AT NETWORKS CENTRE

CPR compliance involves everyone in the supply chain – from manufacturer, distributor, installer and right up to the end user. However, the decision about cable types used should ultimately lie with the end client or an appointed representative, as they have to approve the design that has been put forward. If there is a lack of direction at the top of the supply chain then there will be room for contractors in a bidding situation to pay lip service to the regulations.

As a distributor, we can provide guidance and suggest but, ultimately, it is a customer who chooses. As a distributor we need certainly to be able to plan which type of stock to hold and in what quantity. If the market is indecisive it will ultimately lead to less available stock, but more types of cable to stock.

Some key text in the installation standard BS6701 states, 'For new installations and the refurbishment or extension of existing installations, cables installed in the spaces bounded by the external fire barriers of buildings and other structures SHALL meet the following requirements'.

BS6701 section 5.1.3.1, fire performance of telecommunication cables adds, 'Installation cables SHALL as a minimum meet the requirements of Euroclass Cca-s1b,d2,a2. All other telecommunication cables SHALL as a minimum meet the requirements of Euroclass Eca'.

There cannot be a clearer direction as to the type of cable to install in buildings!

It is also important to understand the description of installation cables, which is as follows, 'Cables intended for installation into pathways which are hidden below floors, above ceiling or behind walls or to which access is limited and which can either be terminated in-situ or pre-terminated'.

Our interpretation is that in the absence of instruction to the contrary from the building owner or any representatives, all newly installed copper and optical fibre network cables within a populated building should be Euroclass Cca as a minimum, unless they are to be installed within suitable conduits or trunking. This also means that currently all new fibre cables to be installed internally within a building will be of tight buffered construction.

In terms of achieving the best fire safety, we need every cog in the supply chain to be specifying the correct cable. It's available and in terms of a project's overall cost the uplift is not so great, so there should be no excuses!

> 'We need every cog in the supply chain to be specifying the correct cable. It's available and in terms of a project's overall cost the uplift is not so great, so there should be no excuses!

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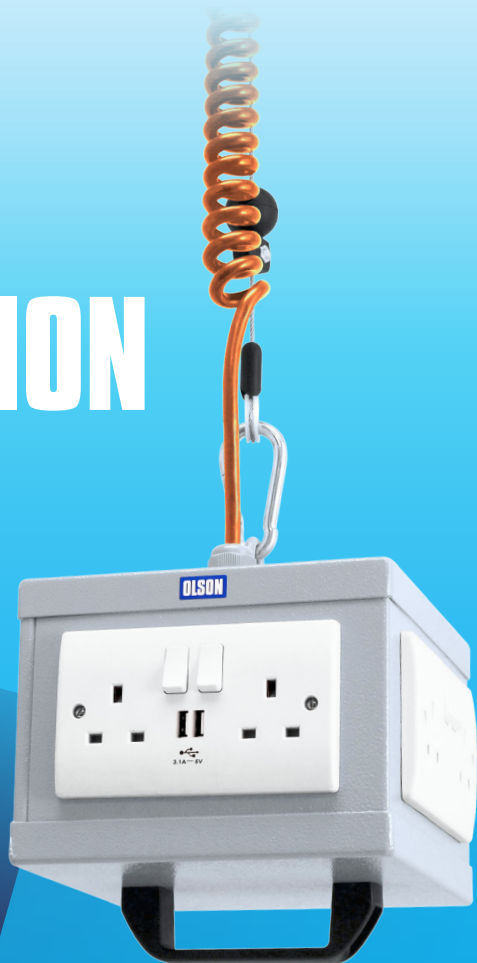
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The British Standard for Telecommunications cabling installation BS6701 now states:

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TIM KENNEDY
TECHNICAL MANAGER AT LMG

There is no doubt that the CPR has been the hot topic within our industry over the last 18 months. The impact of the regulations, or more specifically the updated requirements of British Standards is being felt throughout the industry and it seems that demand for CPR compliant product has surpassed many manufacturer's expectations.

Manufacturing partners and distributors are adhering to the regulations by providing the necessary guidance, advice, education and generally there is a good level of understanding within the market amongst the key players. However, some confusion has been evident around certain products, with a lack of understanding as to whether they constitute part of the non-fixed infrastructure or containment infrastructure – namely harness links and blown fibre tubing.

Clients have generally been keen to adopt the latest standards and ensure the safety of people, property and assets – however, the main issue has been with projects specified before the publication of BS6701 Amendment 1 in November 2017. In these instances, main contractors and customers are being advised to seek clarification from their professional teams, insurers and fire regulators.

Clients unwilling or unable to fund the cost uplift to Cca, s1b, d2, a2 rated cable are being advised to satisfy themselves that they have sufficient fire prevention, detection and suppression systems in place and that insurance premiums may be affected by non-compliance. Our industry should take precautions to ensure the burden of responsibility for non-compliance remains with the client or its representatives for the lifetime of the installation.

Further work is needed on the CPR and the British Standards, as other construction materials such as containment and non-communications cables are not specifically addressed and potentially present as great a risk.

'Clients unwilling or unable to fund the cost uplift to Cca, s1b, d2, a2 rated cable are being advised to satisfy themselves that they have sufficient fire prevention, detection and suppression systems in place and that insurance premiums may be affected by non-compliance.'

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Colt DCS continues momentum with strengthened e-BO Enterprises partnership

Colt Data Centre Services has strengthened its partnership with e-BO Enterprises. The updated partnership will bring greater flexibility, scale, reliability and reach to Colt DCS customers across Europe.

e-BO Enterprises develops content distribution platforms and delivers infrastructure and security services across Europe using a cloud model. Since the partnership began in 2010, e-BO Enterprises is now working with Colt DCS in seven countries including Belgium, The Netherlands, France, Germany, UK, Sweden and Denmark. The company now has plans to expand further

Falk Weinreich

in Europe and globally due to a customer demand for collaboration, centralisation and standardisation.

'We are delighted to continue to expand our business partnership with e-BO, and be able to offer a secure colocation capacity to support their increasing customer propositions,' said Falk Weinreich, senior vice president of sales and marketing at Colt DCS. 'As demand for new services grows, our colocation capacity ensures e-BO has the correct data security credentials to meet the evolving needs of its public sector and government customers, and we are excited to continue our momentum together towards this.'

31

Panduit appoints new regional business director

Panduit has announced the appointment of Vipin Sharma to the role of regional business director for network infrastructure in the Middle East and Africa. He will look after the data centre, enterprise and industrial market areas, including the channel.

Sharma joins Panduit from Vertiv, where he was channel sales director for Middle East and Africa. He is a leading exponent of Middle East channel strategy and implementation, with over 25 years' experience. Ralph Lolies, managing director Panduit EMEA, stated, 'Vipin's

Vipin Sharma

appointment signals the importance of the Middle East market to Panduit as our infrastructure products and capabilities gain acceptance across the region.'

Sharma added, 'This is a very exciting time to join Panduit. Network infrastructure has become a key technology driver and our world-leading solutions offer significant growth potential to the channel community. I am looking forward to working with Ralph and the regional team to establish Panduit as the leading standards led physical infrastructure supplier.'

Mayflex gets to the point with a new range of specialist videos

Mayflex has compiled a library of short informative videos that showcase a selection of the company's Specialist Support Services – a range of services that are ideal for projects with limited time available on-site or for rapid deployment projects.

The short 90-second video clips have been produced to help demonstrate exactly what additional support Mayflex can provide to its customer base to help save their time, money and win new business.

Tracey Calcutt, marketing manager at

Tracey Calcutt

Mayflex, commented, 'Our portfolio of services – which can deliver fully tested, ready made or ready configured and pre-assembled solutions – are much easier for our sales team to communicate to customers and for customers themselves to understand and appreciate if they can actually see what it is we can provide and what they will get for their investment. Each video is short and to the point, but just long enough to explain each service.'

CLICK HERE to take a look.

CHANNEL UPDATE IN BRIEF

ProLabs has appointed Matt McCormick as CEO of Halo Technology, a group recently formed after the forces of ProLabs and AddOn came together in mid-2017.

Ultratec has announced the launch of UltraSupport Services, a new division to provide third party maintenance (TPM) services to the IT channel services market.

Tufin has appointed Michael Menegay to the position of vice president of global channels.

Ziften has launched a new channel partner program to enable resellers and distributors to deliver global endpoint and cloud security solutions to customers. The Ziften Activate Partner Program is designed to empower the Ziften partner community, ensure that partners have the resources they need to successfully sell Ziften's security solutions, while underscoring a commitment to growing the customer base and increasing market share.

Nuvias has signed a UK and Ireland distribution agreement with Sennheiser.

33

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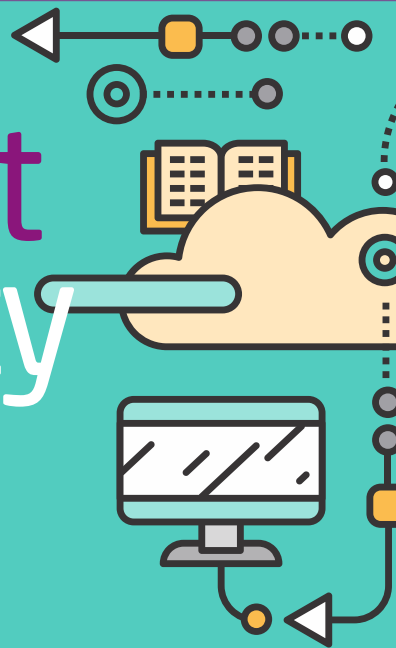
Rahul Rathod of Nexans examines whether automated infrastructure management (AIM) should be considered a luxury or a necessity

▶ Technology evolution and increasing demands are resulting in increasingly complex, high performing networks and cabling, as well as a rise in capital expenditure (CapEx). What's more, the importance of IT network systems is increasing significantly and businesses expect at least 99 per cent uptime. The question is how does AIM play an important role in meeting demand and managing these areas?

THEORY OF EVOLUTION

Today's technology evolution is exponential, and capacity and performance in the areas of power, data, and computation have grown enormously. This has resulted in marked increase in demand for power, bandwidth and internet connection speeds, while growing interest in applications such as power over Ethernet (PoE), the Internet of Things (IoT), the cloud and Industry 4.0 will drive up the requirements even further. Ericsson predicts the internet may connect 50 billion IoT enabled devices by 2020, while IDC gives a far higher number at some 212 billion.

So how is this changing technology paradigm related to documentation and administration of cabling and cabling infrastructures? In this age, for businesses to stay competitive, productive and enjoy profitable growth, they must not only focus on output, but also on IT supporting infrastructure. After all, this is critical and provides the foundation of business – downtime and error are to be avoided at all cost, which is why documentation has to be flawless and up to date.

'Various reasons are given f AIM. Is the cost justifiable? is it really to manage cablin it has been installed? Can't on basic network managem 18598 makes it absolutely benefits of choosing AIM o reasons for not doing so.'

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DOCUMENTARY EVIDENCE

Documentation for all the cabling infrastructure and related equipment created during installation will, of course, be accurate for a very short time – but definitely not over a period of years. There are several reasons for this – the people responsible for documentation won't stay in their jobs forever and teams change over time. What's more, having to rely on documentation managed by a single person or team is going to present serious difficulties during critical times.

Cabling systems may remain in place for 10-15 years or more, and many changes will occur during this lifespan. Potential growth of the organisation will lead to additional cabling infrastructure requirements, with more users, changes to user locations, and more devices, which will ensure countless moves, adds and changes (MACs). With all of these developments and activities, maintaining 100 per cent accuracy on documentation using non-AIM methods is difficult – or probably impossible.

CLEAR DEFINITION AND SCOPE

The idea behind AIM has been around for more than two decades. The core fundamental functionality remains the same though – 100 per cent accurate automated documentation of the cabling infrastructure and connected equipment.

Scoping an AIM solution to an end user was never easy due to lack of consistency and there was often been a gap between what AIM systems actually do and what the users wanted them to do. Some expected AIM to be a data centre infrastructure management (DCIM) tool, some expected it to be an IP telephony management/PBX tool and some expected AIM to be a network management application.

TIMES CHANGE

The situation has changed. Standards like ISO/IEC 14763-2 recommend the need for electronic record keeping in certain types of installation based on their level of complexity, and thanks to the publication of ISO/IEC 18598 there is now a clear definition of AIM systems.

This not only defines the scope of AIM but also addresses the requirements for a management solution to be called an AIM solution. It also defines interfaces that allow AIM to communicate with other systems, supporting building management functions such as enhanced intrusion detection. In addition, some modern solutions include practical benefits such as allowing unused ports to be reassigned to improve port utilisation, and automated routing.

HAS THE MARKET ADAPTED?

Resolving the scoping issue does not necessarily mean the end of the challenges facing AIM. The practice of using traditional documentation methods such as spreadsheets, Visio, SharePoint and software documentation tools continues to exist. However, these documentation tools do not guarantee the efficiency and 100 per cent accuracy of updated physical layer documentation provided by AIM.

Here, the expression 'time is money' can be interpreted as the ability to diagnose a problem and how quickly it can be resolved. Traditional (software) documentation tools increase the risk of error, which could have serious consequences for organisations in the shape of higher costs, lost business, reputational damage or poor customer service. Troubleshooting will take significantly longer, periods of downtime will be extended unnecessarily, and

implementing and testing MACs will be extremely challenging – especially as port densities and the number of physical connections increases.

LUXURY OR NECESSITY?

Various reasons are given for not choosing AIM. Is the cost justifiable? How important is it really to manage cabling system once it has been installed? Can't we simply rely on basic network management? ISO/IEC 18598 makes it absolutely clear that the benefits of choosing AIM outweigh any reasons for not doing so. Cabling, connectivity and active IT infrastructure represent an important investment for any size or type of business, justified by the growth opportunities presented by today's business world. Investment in structured cabling, cable systems, and connected equipment could be between 5-15 per cent of total CaPex and, considering the risks and costs introduced by poor management of cabling and connected devices, any savings in this area are false economy. ∎

AIM IN PRACTICE – A SCENARIO

Normally, over a span of 10 years, the following changes would take place in a company.

- Servers, routers and switches would have been replaced or changed at least twice.
- User PCs/devices would have been changed 2-3 times.
- The organisation would have grown by 10 per cent in terms of employee count, user devices and revenue growth.
- Cabling structure of the organisation would also have grown.
- IT teams will have evolved and changed.
- Cabling systems would be 10 years old.

With so many changes, relying on basic manual or software documentation would make 100 per cent accuracy practically impossible, creating a very high risk to network uptime.

MONEY MATTERS

A study by IHS Markit found that in 2016 businesses in North American market lost $700bn a year due to IT downtime cost. On average, a small to medium sized enterprise (SME) loses $1m and large organisation loses $60m in IT costs.

Having an AIM system in place might not guarantee protection from all conceivable IT downtime costs, but it can help reduce total losses if implemented. AIM's ability to integrate with additional management systems, can help further reduce losses.

RAHUL RATHOD

Rahul Rathod is product manager at Nexans Cabling Solutions for LANsense, Nexans' AIM solution. Before this, he worked in a technical and business development role related to power, cooling, and DCIM for Schneider Electric.

Nexans

Nexans provides a range of AIM tools within its LANsense range.

LANsense provides a practical tool, which not only allows network managers to identify assets connected to the network and where they are located, but can also help identify unused switch ports for better capacity planning and to simplify moves, adds and changes (MACs). This additional 'physical mapping' is also invaluable when it comes to speeding up fault repair times.

The package, which combines hardware and software, automatically monitors network connectivity in real time, ensuring network connections are secure and that connectivity documentation is always 100 per cent accurate – significantly increasing the day-to-day efficiency of network operations.

Whilst AIM – or intelligent infrastructure management (IIM) as it was once known – has been around for some time, the introduction of standards like ISO/IEC 18598 mean that definition and scoping of an AIM system is much easier than in the past.

For more information **CLICK HERE** to visit our LANsense pages.
www.nexans.co.uk/LANsystems

RiT Technologies

CenterMind from RiT Technologies provides real time visibility and control of the entire IT network to quickly detect points of failure, prevent downtime and identify underutilised equipment.

In addition to maximising resource efficiency, CenterMind enables organisations to meet the challenges of managing dynamic virtual environments. CenterMind provides a detailed connectivity map, using RiT's PatchView+ system, which facilitates the rapid execution of MACs with the full information requirements to minimise errors and delays.

Automatic work orders are generated that specify the location and address of each component in the network including switches, servers copper patch panels and fibre chassis.
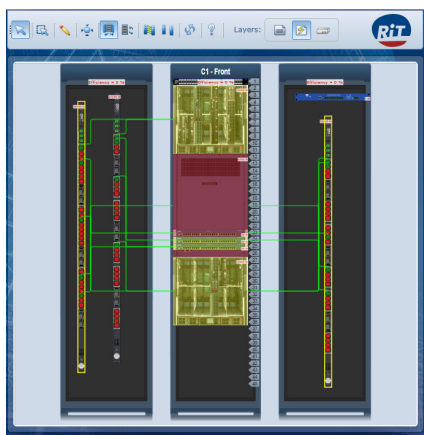
In addition, the comprehensive connectivity map enables rapid deployment of multiple technologies utilising industry best practices for planning, engineering and placement optimisation. The system is flexible and can be easily integrated with other IT systems.

To find out more **CLICK HERE.**
www.rittech.com

Leviton

SmartPatch gives facilities management and IT network administrators instant access to real-time information on physical layer network changes. The intelligent solution combines a scanner module, patch panels, and connectivity management software (CMS) to create an end-to-end infrastructure management system with a user friendly interface.

SmartPatch is an indispensable tool for managing your physical network. It allows you to:

• Monitor physical connectivity in real-time to protect assets and minimise downtime

• Use network, asset, helpdesk and facilities management systems for greater efficiency

• Operate across multiple platforms to minimise the need for numerous systems

• Better manage network activity over time using powerful reporting and search capabilities

• Record physical infrastructure activity, including MACs

For more information on SmartPatch **CLICK HERE.**

www.leviton.com

R&M

R&M's R&MinteliPhy continuously and automatically monitors each connection in one or more data centres or local networks and a (remote) central server records the cabling status.

R&MinteliPhy is easy to retrofit system, requiring no special cables or patch panels. Updates are automatically generated when new devices are integrated or changes are made, and unused patch panels and ports in active equipment are immediately detected.

R&MinteliPhy Monitor and R&MinteliPhy Manage are two pillars of the AIM solution from R&M. R&MinteliPhy Monitor consists of a small number of components that can be retrofitted:

• RFID tags for connectors

• Sensor strips for patch panels

• Analyser for network cabinets

R&MinteliPhy Manage is the client-server solution with central database in a LAN or in a cloud. It offers numerous functions that can be automated plus routing and planning tools and extensive libraries for the management of cabling and IT infrastructure.

To find out more **CLICK HERE.**

www.rdm.com

Quick clicks

Your one click guide to the very best industry events, webinars, electronic literature, white papers, blogs and videos

Four Technologies That Will Affect Your Enterprise Network And How to Support Them in Your Premise Networks is a white paper from **Chatsworth Products (CPI)** and you can download a copy by **CLICKING HERE.**

One third of global business decision makers report that their organisation would try to cut costs by considering paying a ransom demand from a hacker rather than invest in information security.

This is one of the findings from the 2018 Risk:Value Report from **NTT Security,** which can be downloaded by **CLICKING HERE.**

Lithium-ion Backup Batte A New Competitive Edge Data Centers is a white p from **Saft.**
CLICK HERE to obtain a copy.
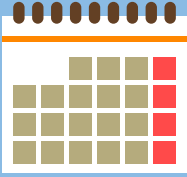
Busting the Myth of Private Cloud Economics is **451 Research's** latest report. To download a copy **CLICK HERE.**

In the latest in the series of Excel Explains videos from **Excel Networking Solutions,** Paul Cave examines the differences between Eca and Dca cables. **CLICK HERE** to watch it.

The **Institute of Information Security Professionals** has produced a new white paper titled The Cyber and Information Security Profession in 2017-18. **CLICK HERE** to download a copy.

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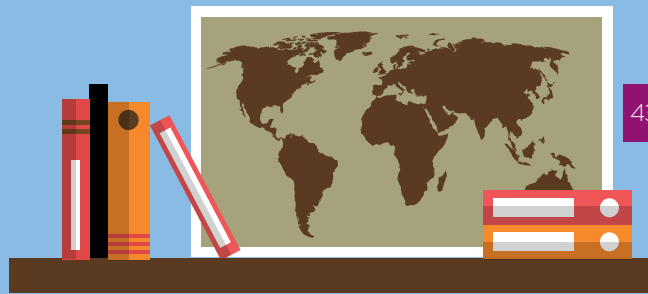
43

Standards Informant from **Siemon** is a guide to network cabling and data centre standards and includes sections for ISO/IEC, TIA and IEEE, allowing readers to hone in on the specific standard of most interest or to compare data from each for an industry wide perspective. **CLICK HERE** to read it.
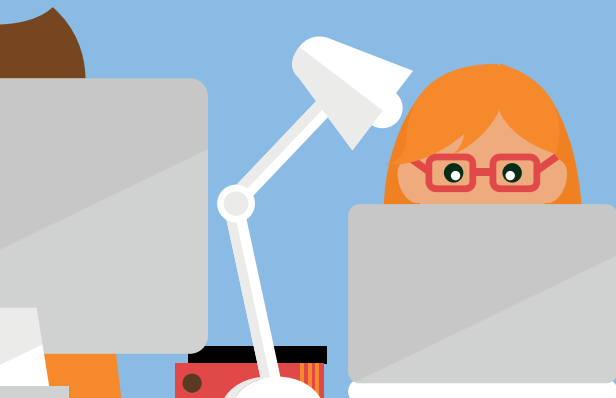
Taking care of business

Colin Parker of EDP Europe explains why data protection and information security has never been more important and why an effective strategy should begin at rack level

▶ In today's interconnected data driven world, demand for – and our reliance on – data processing, data transmission and data storage continues to rise. Coupled with this increased demand is a sharper focus on data protection and data security, ranging from the individual through to organisational, sectorial, national and regional levels. At an organisational level, the ability to properly control access to data and data processing systems, and to monitor and report on access to it, is vital.

MADE TO MEASURE

Without proper data security measures in place, if data is lost or stolen, organisations may face heavy fines – noted in the General Data Protection Regulation (GDPR) – as well as loss of revenue and immeasurable reputational damage. In order to mitigate against these risks and, as part of a comprehensive, multi layered approach to data protection and information security,

physically securing IT systems and controlling who has access to them becomes a critical consideration.

CISOs, CIOs, IT, facilities and data centre managers are having to look at new ways of improving the physical security of IT assets beyond perimeter and room level access control. By introducing enhanced access control to high value IT assets, and achieving improved visibility through real time monitoring and reporting, organisations can further mitigate against the threat and associated costs of data breaches. To fully protect
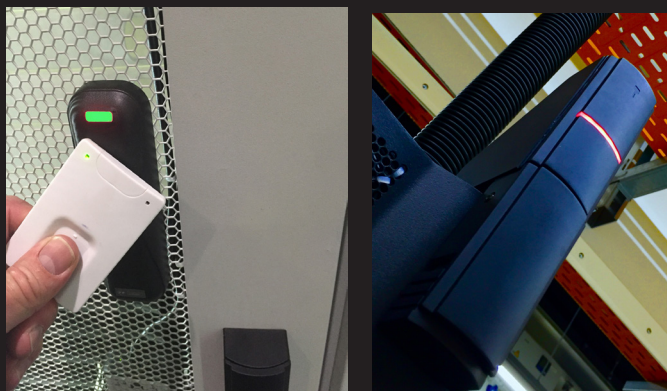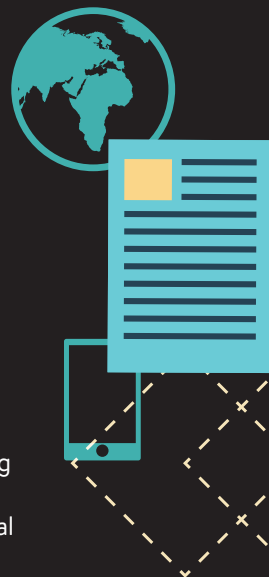
the physical security of data, a growing number of organisations are looking to enhance security at the location where it is stored and processed – within the IT rack itself.

BOXING CLEVER

Effective rack security is vital to ensuring the protection of IT systems. Most IT racks arrive with a standard key lock or, optionally, with a combination lock. These standard mechanical locks, while providing a level of physical security, do not provide any intelligence around when a rack has been accessed, how long it was accessed for, who accessed it, why they accessed it, and whether or not they were authorised to access the rack

'By introducing enhanced access control to high value IT assets, and achieving improved visibility through real time monitoring and reporting, organisations can further mitigate against the threat and associated costs of data breaches.'

in the first place. Nor do mechanical locks provide alerts in the event of unauthorised or forced access scenarios.

The latest IP based intelligent electronic rack access control systems enable rack security management and access control to be taken to a similar level as that afforded to the security of the building and rooms within a building.

An electronic rack access control system extends the protections provided by existing physical security systems from the campus or room level down to an IT system or asset level, therefore, providing micro-security and control.

These advanced micro-security solutions improve the security of IT systems by making it possible to limit an individual's access rights to an individual rack, or even to just a single door. Permissions can be set to limit the amount of time an individual has access to a specific rack, with alerts being triggered if they exceed their timing limitations. Optional in-rack CCTV can record both authorised and unauthorised activities to provide real time reporting and historical footage of events.

REMOTE CONTROL

Electronic locks can be triggered remotely, meaning access to a cabinet door can be controlled centrally without the need for local 'smart hands', proximity cards, biometrics, or other forms of authentication. Some electronic locks or handles utilise a built-in 'traffic light' LED system that provides a visual indicator for which rack doors can be accessed and to the status of the locks. Red signals a door is locked and secured, amber that a door is ready to be unlocked and green when a door has been unlocked. This visual system quickly enables operators to see at a glance the status of their rack doors, as well as helping authorised individuals to quickly identify which rack they have permission to access.

Management hubs can be installed in the rack, or elsewhere in the IT environment. They are accessed via web browser and provide access to the data received from the smart handles and other monitoring feeds, such as temperature and humidity, that can be connected to the system. The stored data provides a granular audit trail on the activity at an individual rack basis or across a suite of racks within a data centre. Now it's possible to trace who accessed which rack, when it was accessed, for how long and that it was secured afterwards.

The control unit can also issue real time alerts via SMS and email. Use of SNMP traps facilitates the use of rack access control systems with existing third party data centre infrastructure management (DCIM) platforms or building management systems (BMS). Users can implement a 'one card' approach to their rack access control system via the use of multi-tech card readers, programmable electronic locks, or in conjunction with Wiegand translators that allow third party card, PIN, or biometric readers to work in conjunction with the rack access control system. The application of electronic locking solutions isn't limited to new racks only – they can also be retrofitted to existing racks and can be implemented

such that they scale up as organisational requirements evolve.

ON THE CARDS

For those organisations currently using proximity card readers to manage access across their campus, dual authentication using biometrics can be seamlessly introduced by utilising new biometric swipe cards.

Biometric proximity cards incorporate built-in biometric technology that stores a user's fingerprint locally at a card level, tying it to that individual only. This technology enables organisations that wish to introduce dual authentication to existing, legacy access control systems, to do so without needing to wholesale upgrade their existing reader infrastructure. With the biometric data being stored on the card only, there is no additional database management required. Strengthening employee and third party visitor identification procedures by introducing biometrics mitigates against the risks of card pass back, card loss and misuse by unauthorised individuals.

NEW AND IMPROVED

Traditional approaches to rack security do not provide a reliable way of reporting and auditing access to critical IT systems. Today's IP based rack access control systems provide the solution, offering real time monitoring and reporting on both authorised and unauthorised access. With heightened concerns over data security, and increasing levels of statutory, corporate and industry specific compliance requirements, micro-security at the rack level is becoming more prevalent in the data centre space, as companies seek to mitigate against threats to their IT systems and customer data. By adopting rack level access control as part of a multi-layered IT and physical security strategy, companies are able to further reduce their exposure to access violations and ultimately, data breaches. Implementing an IP based intelligent rack access control system provides the visibility and control that is required for protecting IT infrastructure and intellectual assets in today's data driven economy. ■

COLIN PARKER
Colin Parker is marketing manager at EDP Europe and has been with the company for 20 years. As an experienced and creative marketing professional, he has helped establish EDP Europe as a leading supplier of infrastructure solutions for the data centre environment, providing a broad portfolio of leading edge systems to optimise performance, efficiency, resiliency, flexibility and security of their customers' data centres.

47

CMS

Available from CMS, Hikvision's HiWatch series is geared towards a broad portfolio of surveillance solutions for the home and small to medium sized enterprises. The newly introduced HiWatch products are cost effective, yet still benefit users with high quality monitoring, ease of use, and ease of installation – a perfect choice for home and business.

The range includes IP network cameras in 2MP or 4MP, fixed or varifocal and bullet, dome or turret design. You can get them individually or in pre-made kits. CMS also stocks a range of compatible accessories that includes NVRs, hard drives and monitors.

The HiWatch digital video recording platform is the ideal solution for creating an innovative HD IP CCTV architecture. A single comprehensive software solution enables vertical management of the entire system. It supports up to 256 devices, four monitor outputs, live and playback viewing, maps with alarm functionality, event logs, remote configuration and multi-level user management.

To find out more **CLICK HERE.**
www.cmsplc.com

EDP Europe

EDP Europe has recently expanded its portfolio with the addition of iAccess and iSensor security and environmental monitoring systems.

iAccess is a modular cabinet door access control system that can be easily installed in new or existing cabinets to provide access control of both front and rear doors. iAccess can be used as a standalone system or it can be incorporated into building management system (BMS) platforms, allowing centralised management. iAccess enables full visibility and audit trail of access to cabinets, with notification of activity, door lock status and door access being provided via email or BMS using SNMP.

iSensor is a 1RU environmental monitoring controller that is dual powered and provides 24 iSensorPlus sensor ports capable of monitoring temperature and humidity, dust particle or volt free contact sensors. Threshold alarms can be set, with notifications sent via email or SNMP.

iAccess and iSensor are cost effective, out-of-the-box solutions – available from stock.

CLICK HERE to find out more, call our sales team on 01376 501337 or **CLICK HERE** to send us an email.
www.edpeurope.com

Mayflex

Mayflex offers a range of specialist support services, which are ideal for projects with limited time available onsite for installation, or for rapid deployment projects.

The services are carried out by a team of trained experts based out of the Mayflex headquarters in Birmingham. Services include the pre-staging of IP devices and bespoke camera and bracket spraying.

The pre-staging of IP devices includes loading IP addresses and software, DOA and soak testing for IP cameras, servers, recorders and IP access control, amongst other things. The bespoke camera and bracket spraying service provides an installer with flexibility and can be a key differentiator, which can help to win projects. Any RAL colour, or bespoke colour, can be matched providing a sample is supplied.

For further details on our IP security specialist support services speak to the team on 0800 757565 or **CLICK HERE** to send an email.
www.mayflex.com

Austin Hughes

Installing a remote rack IP door access solution allows monitoring, control, alarm and reporting capabilities for all server racks. With InfraSolutionX from Austin Hughes, you decide who has access to your racks and when.

The handle allows three ways to release locks – software (remotely), smart card or key override. MIFARE, proximity or existing smart cards can be incorporated, as can SNMP for optional integration to existing data centre infrastructure management (DCIM).

InfraSolutionX offers easy set-up of designated users with access rights for cabinets at specific time/day/date, while total reporting is provided with complete access logs and event occurrences. Unauthorised access and environmental conditions can be sent to administrators via email, SNMP or SMS and, in the case of colocation cabinets, access can be restricted to individual cell level within the rack.

InfraSolutionX smart card rack access is compatible with most third party racks and cabinets. Sensors are available for complete environmental monitoring and peripherals such as power distribution units (PDUs) can be added to further expand functionality.

To find out more **CLICK HERE.**
www.austin-hughes.eu
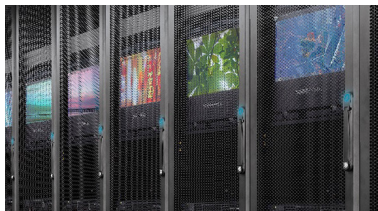
Queen Elizabeth Hospital NHS Trust awards Secure IT Environments three-year maintenance contract

Secure IT Environments has been awarded a three-year data centre maintenance contract at The Queen Elizabeth Hospital King's Lynn NHS Trust.

The Queen Elizabeth Hospital is an established 488 bed general hospital, which provides healthcare services to west and north Norfolk in addition to parts of Breckland, Cambridgeshire and Lincolnshire.

The new contract will see Secure IT Environments provide a range of maintenance services to ensure the efficiency and resilience of the data centre across its expected lifespan. These include an external modular data centre air conditioning plus consumables and external condensing units, a fire suppression system, UPS and environmental monitoring system.

Vertiv enables further innovation at IXcellerate

Vertiv has extended its partnership with IXcellerate, which recently launched the third expansion of its Moscow One campus, creating the largest data hall in Russia.

Vertiv has been an influential technology partner for IXcellerate since 2013, providing thermal management products, including refrigerant gas based CRAC units as well as free cooling chillers. For its latest phase of expansion, IXcellerate selected Liebert AFC adiabatic free cooling chillers. It also deployed the Liebert PDX with Vertiv EconoPhase, an air-cooled direct expansion system with a refrigerant pumping module to allow a shift from compressor to economiser mode when conditions suit.

The equipment deployed also extends beyond critical thermal management to the provision of high performance Liebert EXL S1 UPS. These offer double conversion efficiency of up to 97 per cent and up to 99 per cent in ECO mode, as well as optimised efficiency at partial load. Moreover, the Liebert EXL S1 is compatible with modern lithium-ion batteries.

Kao Data announces Europe's first data centre to meet OCP design principles

Kao Data has been working together with the Open Compute Project (OCP) Foundation on a pilot programme to make its Kao Data London One facility OCP ready.

The recently completed facility has completed the first two steps of the programme – joining the Data Centre Facility (DCF) Project within OCP and becoming the first data centre to self-audit against OCP's checklist for compliance with its engineering principles.

The OCP Data Centre Facility project was developed to maximise the mechanical performance and thermal and electrical efficiency of OCP servers. The project comprises electrical and mechanical components, and focuses its efforts on five functional areas of the data centre including power, cooling, IT space layout and design, facility management and control, and facility operations.

Kao Data London One has been self-audited as structurally, technically and operationally capable of providing organisations deploying OCP designed solutions and equipment with an infrastructure platform which meets the central design concepts laid out in the OCP Data Centre Facility project.

PROJECTS & CONTRACTS IN BRIEF

Novosco has been awarded a contract to manage IT infrastructure and support services for Cambridge University Hospitals NHS Foundation Trust.

Fagdata has signed an agreement with Green Mountain to provide secure cloud services to its customers, to promote growth and to meet increased demand from customers. The data centre, which is located deep inside the mountain in a former NATO ammunition storage facility at Rennesøy, will provide safe and reliable services to Fagdatas' customers.

Aruba SpA has announced the construction of its new data centre in Rome. The launch of its fourth Italian data centre – and the ninth for the whole European network – will complete Aruba's project to create a modern ecological network of data centres in the country.

Marshall-Tufflex's Odyssey PVC-U trunking system has been at the halls of residence at the University of Warwick.

The San Francisco 49ers has announced Datrium as the team's official converged infrastructure provider.

Time for tee
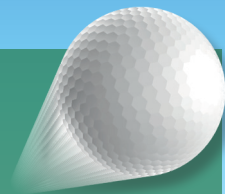
Once again the world-renowned Hanbury Manor PGA Championship Course played host to The Inside_Networks 2018 Charity Golf Day to raise funds for Macmillan Cancer Support

▶ It might have started off cold and grey but by mid-morning the sun shone on the Inside_Networks 2018 Charity Golf Day, which raised over £10,000 for Macmillan Cancer Support, taking the total since the event started to over £65,000. This amazing sum was the result of fantastic industry-wide support and a great day's golfing at Hanbury Manor PGA Championship Course in Ware, Hertfordshire, which was followed by a three-course dinner, prize giving, auction and charity raffle.

'Each year the Inside_Networks Charity Golf Day gets bigger and better and this time 36 teams and 140 industry figures took part in one of the industry's most popular and well-supported events,' says Andrew Stevens, one of the event organisers and CEO of CNet Training. 'After last year, where we raised over £8,000, the challenge was to better that figure and I'm delighted to say that we smashed it! The generosity of those who sponsored the event and provided prizes was truly outstanding and everyone had a great day.'

With main sponsorship once again provided by LMG, Excel Networking Solutions, Mills, Computacenter and CNet Training, it provided a welcome opportunity for all areas of the industry to network and take part in some good natured banter and competition.

The tightly fought Team Competition saw Team SpliceGroup emerge as clear winners, followed in second place by Team CNet Training 1, with Team Brother closely following in third place. The day's Best Individual accolade went to Dave Kelly of Team Brother, followed by Dave Collins of Team Redstone and Craig Hendry of Team LMG.

Winner of the Nearest the Pin competition sponsored by Comtec was John Symons of Team Mayflex, while for the second year in a row David Bowles of Team Technical Resources took the Comtec sponsored Longest Drive accolade. Tricky Rob was once again on hand to challenge competitors to a range of amazing trick shots and Peter Taylor of Team Corning 1 was presented with the Tricky Rob award for his efforts. Hanbury Manor also has a world-class golf simulator and Mike Barlow of Team Brother hit an impressive shot to within 5ft of the Par 3 14th at Wentworth to win the Simulator Nearest the Pin competition and a return 4-ball to Hanbury.

The traditional Inside_Networks Charity Golf Day prize of a golfing gnome is normally awarded to the individual with the lowest score. However, this year it was given to Nader Balti of Team Corning, for being last

Team SpliceGroup take the title

Emily Jessup of Team CNet Training 2 celebrates

'I'm so proud of the network infrastructure industry – we come together for one special day each year to raise money for such a worthy cause. It was a great day and fantastically organised, so well done all involved.'
Rob Jewell – Fluke Networks

'LMG is once again proud to be associated with a great day and to be able to help contribute to such a brilliant cause. It has a great atmosphere and is a fantastic opportunity to network with colleagues from across the industry.'
Ieuan Rowe – LMG

53

This year's prizes!

Team Lynchpin Media keep their strength up

to provide handicaps and other team details in advance of the competition – and then changing them all on the day!

The generosity of sponsors and participants alike was phenomenal and the donated auction prizes raised £3,800 alone. Bidders fought for a range of prizes including two packages of golf for three at St George's Hill and hospitality tickets to the England v Nigeria match at Wembley, which were donated by Technical Resources. Other prizes included an all expenses weekend stay in the Brecon Beacons from LMG and a helicopter ride for four, which was kindly donated by Liam DeRoe of Macmillan Cancer Support,

who also gave an impressive speech about how the money raised would go towards making the lives of those with cancer, and their families, easier.

'The Inside_Networks Charity Golf Day is always a highlight of the industry calendar, but this year was exceptional – both in terms of the number of teams participating and the amount of money raised,' comments Rob Shepherd, editor of Inside_Networks, 'Being able to raise a considerable sum of money for such a worthwhile and important cause as Macmillan Cancer Support is an amazing achievement and I'm incredibly proud of our industry for showing such generosity. Of

54

Team iDaC Solutions get themselves seen

Rob Jewell keeps hydrated

'I am very proud to be part of an event that brings our industry together to raise money for such a worthwhile cause, whilst having a lot of fun in the process. I've been playing at the Inside_Networks Charity Golf Day for a number of years now and it just gets better and better – even if I still haven't won any of the major prizes!'
Nick Andrews - Comtec

'CNet Training loves the Inside_ Networks 2018 Charity Golf Day – it's so much fun. The turnout was amazing and it's great to raise so much money for such a worthwhile charity. We look forward to next year.'
Sarah Parks – CNet Training

'Another very enjoyable, extremely well attended and well organised Inside_Networks Charity Golf Day, which raised a five figure sum for Macmillan Cancer Support. Team Mills didn't trouble the scorers this year but we are very much look forward to regrouping for next year's event!'
Jerry Mills – Mills

'The day on the golf course was much enjoyed and so was the evening, spent in great company. I appreciated the message Liam DeRoe from Macmillan Cancer Support about the importance of checking out possible signs of cancer, taking precautions and "giving back" to those hit hard through no fault of their own. We hope to be part of the event again next year.'
Martina Burger – Stulz

Team LMG are all smiles

55

Team Brother arrive in style

Team Mayflex mean business

course, it wouldn't have happened without such great support and I would like to extend my thanks to all the players, sponsors and organisers for making the event such a success.'

On being presented with the cheque, Georgia Clark, Macmillan Cancer Support's Hertfordshire and Essex fundraising manager, said, 'I would like to extend our sincere gratitude to those who have helped to organise yet another successful Inside_ Networks Golf Day, and to everyone who took to the course to raise funds for Macmillan Cancer Support. We are overwhelmed with the total amount raised from 2018's event, adding to the many thousands that have

already been donated and gratefully received by the charity over the years. The fantastic funds raised from the golf day will enable us to provide vital medical, practical, financial and emotional support to people living with cancer.'

Plans are already underway for the Inside_ Networks 2019 Charity Golf Day, which will take place on 22nd May. Places are sure to be snapped up quickly, so those interested in taking part are advised to register early, as places are limited. To enter a team or get more information about various sponsorship opportunities that are available CLICK HERE to email Mark Cumberworth of Slice Golf and Events or call 07769 696976.

The dinner, prize giving, auction and raffle get underway

Team ACI concentrate hard

'I thought it was a great event, which was very well attended and the weather was perfect. I took a couple of customers round and we all pretty much played to our handicaps. Looking forward to seeing you all again next year.'
Paul Hunter – iDaC Solutions

A BIG THANKS TO ALL THE EVENT SPONSORS

LMG BUILDING INTELLIGENCE

Net Customer Focused ▶▶ Quality Driven ▶▶▶
Training

Computacenter

Mills
CELEBRATING 100 YEARS

'Great day, great venue with the weather organised accordingly! Very good event, all in the interest of charity and we'll be back next year. Thanks to all involved and I look forward to seeing you in 2019.'
Daniel Little – J Brand

Time for a bit of networking

Tricky Rob does his thing

Team Comms Centre takes in some light refreshment

57

'Brother was delighted to be involved with this year's Inside_Networks Charity Golf Day. It was our first time at the event and we were overwhelmed by the donations and support for Macmillan Cancer Support. The venue and facilities, combined with superb organisation, meant for a stress free enjoyable day and evening. It was great to be in the company of so many industry leaders. We enjoyed it so much that we've already added next year's event to the diary.'
David Kelly – Brother

'It was a very well organised day at an excellent venue for an amazing charity. It was also a great networking event with good golf to go with it. This was our first year and we shall be returning in 2019 to defend our title! Our thanks to all those involved.'
John Byron - SpliceGroup Europe

slice: GOLF AND EVENTS

excel
without compromise.

Ideal Networks

Ideal Networks is helping installers certify cabling that has modular plug terminated links (MPTL), thanks to a new software update for its LanTEK III cable certifier. MPTL is a new term that refers to an Ethernet cable that is terminated with a female socket (jack) on one side, and a male plug on the other.

If using Category 6A cable for wireless access points, AV equipment and CCTV cameras, or an application anticipating high bandwidth demand, it's important to understand the challenges and requirements of certifying MPTLs.

The existing Ideal Networks Category 6A channel adaptor for the LanTEK III cable certifier already uses the approved 'centred' jack that can be used to measure the performance of RJ-45 plugs. Therefore, to equip the tester with the capability to test MPTL, users can simply download a free software upgrade from Ideal Networks.

To download The Rise of Modular Plug Terminated Links white paper **CLICK HERE.** You can also download the free LanTEK III certifier upgrade software.
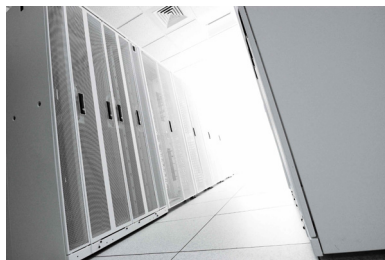**www.idealnetworks.net**

Siemon

Siemon's cabinet solutions and accessories are now available in white and light grey, improving visibility and delivering a clean, modern look for today's data centres and telecommunications spaces.

In addition to existing black (RAL 9011), Siemon's VersaPOD, V800, V600 and wall-mount cabinets are now available in white (RAL 9003) and light grey (RAL 7035). Cabinet accessories are also available in white and light grey to ensure a seamless look throughout the cabinets, including VersaPOD zero-U and end-of-row panels, cable managers, blanking panels and PDU mounting brackets. Vertical patch panels, cable trays, cable managers and brush guards used with V800 and V600 cabinets also come in a white or grey, as well as common cabinet accessories including equipment shelves, filler panels, exhaust chimneys, lid dividers, casters and mounting rails.

Lighter coloured cabinets reflect up to 75 per cent more light than black cabinets for overall improved visibility, making critical network connections and equipment easier to see in dim lighting conditions. With improved visibility, lighting energy within these networking spaces may be reduced for potential operational cost savings.

For more information **CLICK HERE.**
www.siemon.co.uk

Leviton
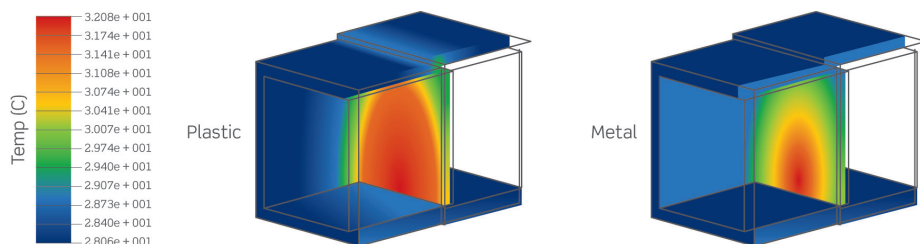
In recent years, power over Ethernet (PoE) has evolved to include a wide range of devices and applications – and next generation high power PoE promises even greater expansion of capabilities. However, without the right cabling, connectivity, and network design, PoE systems are susceptible to issues related to high temperatures and connection integrity that can negatively impact overall performance.

To help IT managers and cabling installers understand the requirements of high power PoE, Leviton has authored a white paper that addresses current and emerging standards, and provides cabling recommendations, solutions to common connectivity issues, and network design advice for current and next generation PoE.

To download the white paper **CLICK HERE.**
www.leviton.com

HellermannTyton

RapidNet is HellermannTyton's fully patented pre-terminated, pre-tested modular cabling system, which eliminates the need for on-site terminations and reduces installation times significantly. All terminations are housed in the RapidNet cassette, ensuring complete protection and strain relief of the cables.

The RapidNet system offers many advantages over a standard site-terminated solution. It can reduce installation times by up to 95 per cent (optical fibre) and, because it's pre-tested, minimal on-site testing is required once installed.

The pre-terminated solution delivers high performance across all formats including Category 6A, Category 6, Category 5e in copper and OM4, OM3 and OS2 in fibre. The Category 6A and fibre solutions will support high speed 10Gb/s networks and beyond. High port densities can be achieved using RapidNet fibre, with MTP connectors providing up to 144 fibres per cassette or up to 576 fibres in 1U of rack space.

With each RapidNet loom manufactured and supplied to pre-specified lengths, there is less on-site cabling and packaging waste. In addition, as RapidNet is manufactured in the UK, the environmental impact of shipping is greatly reduced.

To find out more **CLICK HERE.**
www.htdata.co.uk

R&M

With R&M's extended range of field-mountable FM45 network connectors, standard compliant connections can be established anywhere without any special tools. Connection termination takes just a minute and conductors no longer need to be stripped.

The FM45 comes as a straight or angled version for Cat.5e connections, as well as a shielded version with metal housing. For high performance connections for Cat.6$_A$, R&M offers shielded and unshielded types in an angled or straight form. A version with an outer housing for protection class IP67 for industrial applications is also available.

The FM45 enables data transmission up to 10 Gigabit Ethernet. Its specifications and attenuation values surpass the parameters defined in the standard. The Cat.6$_A$ type is used to install Class E$_A$ channels in accordance with the ISO/IEC 11801 standard. It also supports the deployment of power over Ethernet to 4PPoE.

To find out more **CLICK HERE**.
www.rdm.com
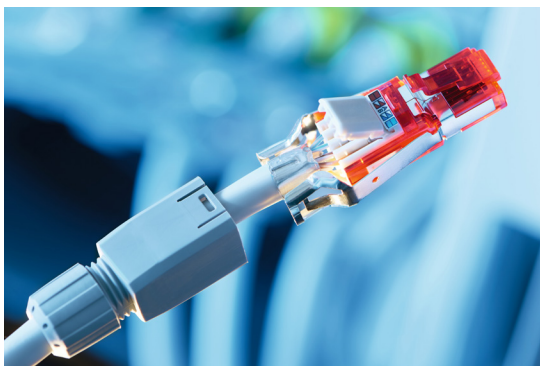
Rittal

The Network Cable Organizer (NCO) from Rittal revolutionises patching work on the enclosure, with eight times faster assembly. This not only nets you huge time-savings, it also creates space and order in the rack. The NCO means simple, fast and secure patching while surplus cable lengths are simply withdrawn with a spring balancer.

The NCO takes up 1U in the network enclosure and contains 24 tested Category 6/Class E patch cables or fibre optic cables, each with a length of 1.6m, which is sufficient for 23U. It has a modular structure and is made up of individual cassettes. The pulley system integrated into the cassettes allows surplus cable lengths to be drawn-in automatically. This ensures that every cable is available in the perfect length, eliminating the need to order and stock a variety of different cable lengths.

The result is permanently well-organised cable management, providing a perfect overview of what is connected where.

To find out more **CLICK HERE.**
www.rittal.co.uk

Excel Networking Solutions

Excel Networking Solutions has rebranded one of its product groups. The ExpressNet Solution – formerly known as the Mixed-Use Panel and Cassettes – provides a simple way of presenting both copper and optical fibre in one patch panel, offering the capacity for both copper and fibre within 1U of rack space.

Excel's ExpressNet Solution is supplied either as standalone products or as a pre-terminated solution, delivered to site as a plug and play system. All the ISO/IEC and TIA/ANSI performance standard criteria apply to the Excel ExpressNet Solution for copper and fibre.

The products undergo rigorous tests and quality checks to ensure that the performance levels of the system will exceed the demands of the destination network. When supplied as a pre-terminated solution, minimal on-site testing is required, which helps reduce the overall installation time, thereby reducing costs. This also limits the risk of system failure and reduces post-installation performance issues, creating a future proof solution.

For more information about the Excel ExpressNet Solution speak to the team on 0800 757565 or **CLICK HERE** to send an email.
www.excel-networking.com

CNet Training

CNet Training, in close collaboration with leading data centre professionals from across the globe, has introduced the Certified Data Centre Sustainability Professional (CDCSP) program.

The program has been created as a result of requests CNet Training has received from data centre professionals for a sector focused, comprehensive program to provide knowledge and innovative approaches to planning, designing, implementing and monitoring a sustainability strategy for data centre facilities and operational capability.

A one-year distance learning program, the CDCSP provides flexibility and convenience of learning for busy data centre professionals as they log in from across the globe. The learning, managed and supported by CNet Training's in-house team, is split into three terms:

• Understanding sustainability and the business approach
• Technological and operational approach to sustainability
• Implementing sustainability

The in-depth content walks through all stages of data centre sustainability from strategic vision and business drivers, operational analysis of power, cooling and IT hardware, operational processes and procedures, risk evaluation and mitigation, to design innovation and implementing initiatives, whilst appreciating the business and operational challenges that can be encountered. Maintenance strategies, continuous planning and critical analysis against identified targets and demonstrating return on investment are also explored.

To find out more **CLICK HERE.**
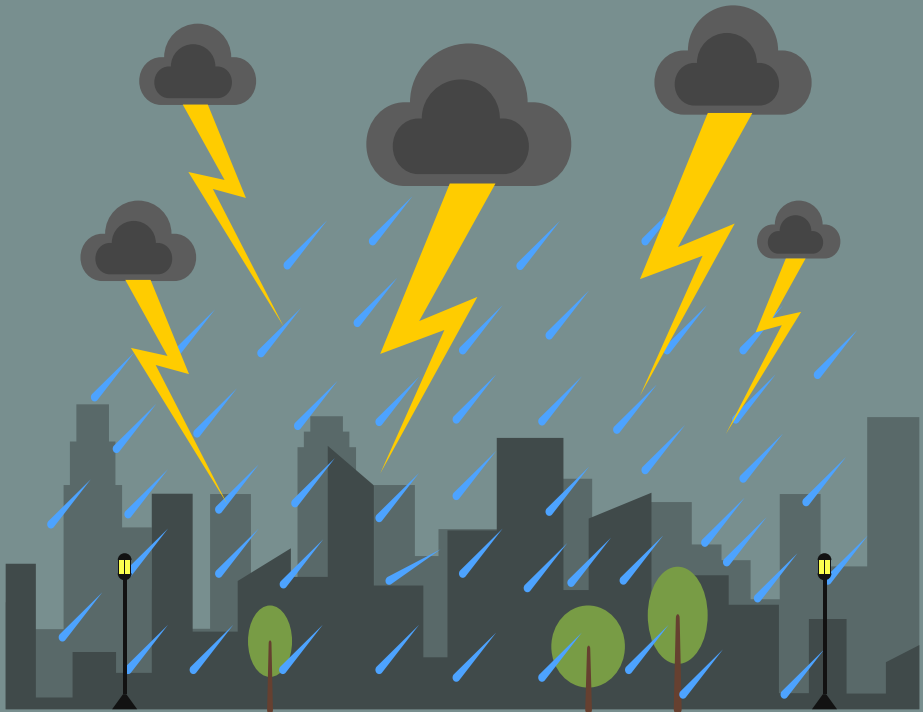**www.cnet-training.com**

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When disaster strikes

Kevin Heslin of Uptime Institute identifies disaster recovery best practices for data centres

▶ Recent natural disasters have caused humanitarian crises in locations like Houston, Texas, across the state of Florida, and the island of Puerto Rico, to name a few. Climate change continues to increase the severity and frequency of destructive weather events, reminding everyone just how unpredictable natural disasters can be. In the past, natural disasters have struck regions that host more large mission critical facilities. These facilities depend on local utility services, infrastructure, and employees to achieve 24x7x365 operation. So, most develop disaster recovery and business continuity plans to cope with natural disasters but, in some cases, these basic procedures and plans prove inadequate.

CAUSE AND EFFECT

Such was the situation in 2012 when Hurricane Sandy roared up America's east coast, ultimately killing over a hundred people, leaving millions without power and causing billions of dollars' worth of destruction. The damage was especially severe in New York and New Jersey, the home of numerous mission critical facilities, especially those serving the global financial industry. Approximately one-third of the data centres surveyed by Uptime Institute at the time said that

'Over the next decade, resiliency and redundancy at the individual data centre level will – in whole or in part – be complemented and/or replaced by resiliency at the IT level for a sizeable number of operators.'

Sandy affected their IT operations.

When sites lost their IT computing services, it was due largely to either critical infrastructure components being located below grade or by depending on external resources for resupply of engine generator fuel – both preventable outcomes. Full preparedness for a natural disaster is not a simple proposition. However, being prepared with a robust infrastructure system, sufficient on-site fuel, available staff, and knowledge of past events will go a long way toward ensuring operational readiness.

PRACTICE MAKES PERFECT

Merely developing procedures to meet the challenges of natural disasters is not sufficient. These processes must be practiced and rehearsed – and kept current. Uptime Institute's Tier Certification of Operational Sustainability describes management behaviours that enable enterprises to achieve these goals.

In order to maintain functionality through a region-wide disaster, it's important for executives and infrastructure staff to proactively identify the risks and mitigate them. How?

- Review the location and elevation of critical components, including fuel storage and fuel pumps for flooding potential.
- Perform regular testing and maintenance, switching power from utility to engine generator.
- Ensure that a sufficient supply of engine generator fuel is properly stored and maintained on site.
- Maintain up to date disaster recovery, business continuity and IT load shedding plans. Brief stakeholders on these plans regularly to ensure confidence and common understanding.

Additionally, mission critical IT is increasingly delivered via distributed data centres, which, when implemented correctly, provides the ability for applications, data, and traffic to shift across geographies according to business needs, performance, cost, and availability. This change was inevitable because applications are becoming more distributed. Now, enterprises can manage risk and cost by shifting workloads for any reason, including the threat of natural disaster.

WHAT'S IN STORE?

Over the next decade, resiliency and redundancy at the individual data centre level will – in whole or in part – be complemented and/or replaced by resiliency at the IT level for a sizeable number of operators. Already, many companies are attempting to implement a distributed resiliency strategy. In fact,

the 2017 Uptime Institute Data Center Industry Survey found that 68 per cent of respondents have deployed a live multi-site resiliency strategy.

At the same time, however, the promise of distributed data centre resiliency remains distant for many enterprises, as they sort out how to design and deliver the appropriate number, location, and type of data centre and cloud facilities needed to meet their business requirements. In addition, achieving and maintaining

distributed data centre resiliency will be a challenge as it is very easy to overlook or compromise critical elements.

BE PREPARED

In the interim, enterprises must continue to evaluate, implement and update plans based on single-site resiliency. Many organisations learned about flaws in their plans only after Sandy revealed them. For instance, supplies of diesel fuel needed for extended generator operation were often interrupted. The disaster forced some suppliers offline, and local fire and police departments took priority over enterprise facilities, forcing some mission critical sites offline and others to take extraordinary steps to remain operational. According to media reports, one hosting provider even relied on a 'bucket brigade' to keep its generators online.

Not long after the storm subsided, operators of high availability, mission critical IT facilities began to take stock of these events. Within weeks, many were addressing shortcomings in their resiliency planning, as well as their disaster recovery and business continuity plans. Uptime Institute noted survey respondents proactively making changes to plans moving critical facilities away from susceptible areas, planning for increased resiliency of site infrastructure, or evaluating extension of existing facilities in other locations to move computing needs during an emergency response period.

THINK AHEAD

One thing's for sure – disaster and emergency planning can no longer be isolated to equipment testing and procedures, but instead needs to be conducted within the context of real life emergency scenarios. Data centre operators eager to avoid a loss due to natural disasters will continue to evaluate new solutions, especially as technology evolves. For some, data centre resiliency may provide the solution, but for others, continued investment in planning, operations, and staff may be the best bet. ∎
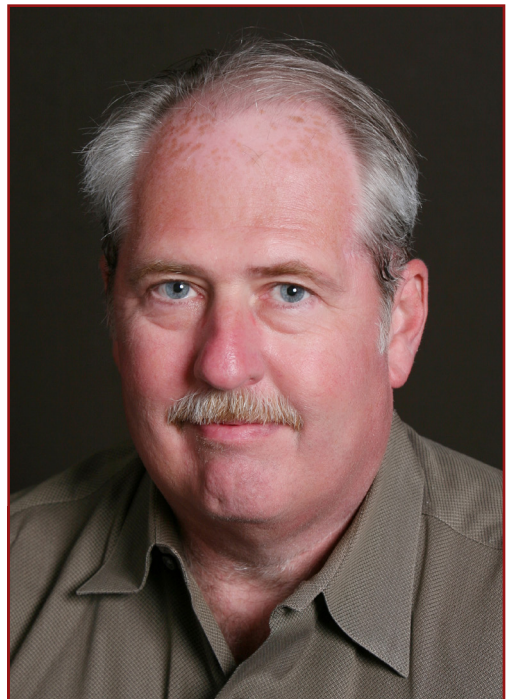
KEVIN HESLIN
Kevin Heslin is chief editor and director of ancillary projects at Uptime Institute. In these roles, he supports Uptime Institute communications and education efforts. Previously, he served as an editor at BNP Media and as editor at New York Construction News and CEE. In addition, Heslin served as communications manager at the Lighting Research Center of Rensselaer Polytechnic Institute.

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