

# Inside\_Networks

## Actions speak louder than words

IS ENOUGH BEING  
DONE TO REDUCE  
THE USE OF PLASTIC  
PACKAGING?

## Wheel of fortune

WHY A CIRCULAR  
ECONOMY CREATES A  
MORE SUSTAINABLE  
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THE EVOLUTION OF CLOUD  
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# Get the message

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 We've been told about the damage being wreaked upon the planet by plastic for many years, but it took the images in the final episode of the BBC's Blue Planet II for the message to finally sink in about its devastating effect on our oceans. The programme has been widely heralded as a key moment in the war on excessive use of plastic and viewers were clearly affected by it, as by the end of 2018 Waitrose's Food & Drink Report found that 88 per cent of those who saw that episode had changed their behaviour.

We certainly have a lot to thank Sir David Attenborough for and I'm delighted that some manufacturing and distribution companies within the network infrastructure industry are taking action to reduce the amount of plastic packaging they use. Installers and consultants are playing their parts too by actively requesting minimal packaging and favouring those companies that show a commitment to sustainable practices. As well as asking what more can be done with regards to this issue, in this month's Question Time we've also asked a panel of esteemed industry experts to assess the impact and benefits of a more sustainable approach. [CLICK HERE](#) to read their comments.

Continuing the green theme, Kennedy Miller of Leviton explains why using environmentally friendly strategies and implementing a circular economy creates a smarter, greener business model. You can read his thought provoking article by [CLICKING HERE](#).

Getting back to technology, data centre infrastructure management (DCIM) has always elicited strong feelings both for and against. We have two articles on this subject in this issue and, in the first, Marc Garner of Schneider Electric examines the evolution of cloud based DCIM. In the second piece, Stu Redshaw of EkkoSense explains why organisations need to look beyond DCIM if they're serious about optimising their energy performance. [CLICK HERE](#) to read Marc's article and [CLICK HERE](#) for Stu's.

With lots more besides, I hope you enjoy this issue of Inside\_Networks and if you'd like to comment on any of these subjects, or anything else, I'd be delighted to hear from you.

**Rob Shepherd**

Editor



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## UK consumers are excited by arrival of 5G but fearful of driverless cars and artificial intelligence

A new survey of 2,000 UK adults, commissioned by Studio Graphene, has uncovered the public's perception towards different modern technologies.

The research found that 32 per cent of respondents are excited by the positive change that will be brought about by the rise of biometric technologies and 31 per cent are looking forward to 5G. However, it appears that 43 per cent are worried about the problems that may arise from driverless cars and 24 per cent are concerned about artificial intelligence (AI). The study also discovered that 37 per cent of people have never heard of internet of things (IoT), while 35 per cent are not familiar with the term big data.



Ritam Gandhi, director and founder of Studio Graphene, said, 'New technologies tend to conjure both fear and excitement among consumers. Despite the hype, AI and driverless cars still trigger fear among

adults. What's more, there are hugely significant trends shaping the world around us – like IoT and big data – which consumers do not fully understand. It's important, therefore, that the businesses creating and using these technologies

help explain to consumers exactly what the terms mean and how they can improve their day-to-day lives.'

## TIA establishes Single Pair Ethernet Consortium (SPEC)

The Telecommunications Industry Association (TIA) has established the Single Pair Ethernet Consortium (SPEC) to accelerate the adoption of next generation operational technology (OT) and IoT connectivity.

Founding members of SPEC include Belden, CommScope, Panduit and Siemon.

SPEC will provide vendor neutral representation for technology leaders and



users across the building automation technology ecosystem. Participation is open to all companies interested in accelerating the acceptance of SPE technologies in building automation

technology and networks. These include building operators and design and engineering professionals in all areas of the ecosystem.

'We are proud to bring together leading technology companies to focus on paving the way for adoption of SPE,' said TIA CEO, Wes Johnston. 'Working together, the SPEC will ensure we can leverage this powerful technology to support the devices that enable the IoT, smart buildings and so much more.'

# Equinix extends global reach of Oracle Cloud Infrastructure

Equinix has extended the global reach of Oracle Cloud Infrastructure to help enterprises across five continents easily and privately connect to Oracle Cloud on Platform Equinix.

Recent global market expansions in São Paulo, Sydney, Tokyo, Toronto and Zurich now provide customers in these metros with private and highly secure connectivity to Oracle Cloud Infrastructure FastConnect via Equinix Cloud Exchange Fabric (ECX Fabric). This rapid global expansion is in response to strong demand from enterprises to digitally transform their global businesses by migrating Oracle workloads to Oracle Cloud.

Robert Blackburn, global managing



Robert  
Blackburn

director Oracle strategic alliance at Equinix, said, 'As companies around the world are

prioritising digital transformation as a way to gain a competitive advantage, we're seeing increased customer demand to migrate to Oracle Cloud. The reality is that companies that are adopting digital transformation are

thriving, and those that are not are being left behind. With this direct access, our mutual customers can create a high speed, low latency connection that allows them to fully realise the benefits of their Oracle deployment.'

## 80 per cent of companies cite performance and availability of their IT infrastructure as their top concern

LogicMonitor has released the results from a new study of 300 IT decision makers. The 2019 IT Outage Impact Study examines the impact infrastructure and software brownouts and outages have on organisations, and if such events are preventable. The survey found that although performance and availability are the top two concerns of IT teams worldwide, organisations are still plagued by frequent brownouts or outright outages.

80 per cent of respondents reported that the performance and availability of their IT infrastructure tops their list of concerns. In fact, availability was considered more important than security and cost

effectiveness, which ranked third and fourth respectively.

'Organisations today are increasingly dependent on the availability of their IT infrastructure,' said Gadi Oren, vice president of technology evangelism of LogicMonitor. 'A single IT outage can have huge negative business impacts including lost revenue and compliance failure, as well as decreased customer satisfaction and a tarnished brand reputation. Comprehensively monitoring IT infrastructure is key in detecting the early warning signs of impending IT outages and acting in real time to course-correct before it's too late.'

## UKFast's £4m upgrade focuses on resilience and security

Following a multimillion pound investment expanding its network in Amsterdam, Seattle and Washington, UKFast is upgrading its UK infrastructure to bring new levels of resilience and security to its customers.

Introducing three major new points of presence (POPs) across the UK, the move increases the capacity of UKFast's hosting network 17-fold and bolsters defences against cyberattacks. The new POPs in Manchester, Leeds and London form part of a wider £4m project,



which saw the company bring locations online across the globe earlier this year to strengthen its dedicated cyber defence network.

UKFast CEO Lawrence Jones, said, 'With DDoS attacks on the rise, the network upgrades offer significant advantages in terms of protection. It's our duty to be prepared and to protect our customers – that's exactly what the latest upgrade does.'

## The unlikely targets of business network hacks are revealed

Businesses need to be more aware of the security vulnerabilities their wireless devices present. A survey of 1,075 UK workers, carried out by Probrand.co.uk, has revealed that 72 per cent of companies who suffered a data breach in the last year found that the network infiltration came from an unsecured wireless device such as a printer, scanner, mobile phone or laptop connected to their Wi-Fi network.

Recent Probrand research found 43 per cent of businesses surveyed had reported cybersecurity breaches or attacks in the last 12 months. Of the surveyed businesses who suffered a breach, it was found that more than half (52 per cent) had open Wi-Fi networks and or devices. Furthermore, only 23 per cent of the surveyed employees were aware that infiltration could take place through

devices such as printers and scanners, while only 10 per cent of the companies surveyed actively check their printers and scanners for malware.

Matt Royle, marketing director at Probrand, commented, 'Every device and connection presents an exploitable entry point. Organisations need to take a zero trust approach that assumes all devices connected to the network, and the internet, are inherently insecure unless otherwise tested, protected and monitored. Cyberattacks aim to target the weakest point and examples like a wireless webcam, printer or scanner can present an unsecure way in to a business's network. Once in, hackers will exploit the opportunity to make money through whatever means they have at their disposal.'

# Hidden costs and the lack of a human element are the stings in the tail for hyperscalers

Hyperscalers lack a human element and tailored customer support in the service they offer to clients which, according to Memset, has resulted in many organisations struggling to get the advice they need to successfully implement multi-cloud strategies. The warning follows a recent survey from IBM which found that, while 85 per cent of organisations now use multi-cloud business models, only 41 per cent have an active multi-cloud strategy in place.

Chris Burden, chief commercial officer at Memset, commented, 'The findings from IBM lay bare the fact that many organisations are managing multiple different clouds on the fly, without the

guidance they need to ensure a multi-cloud strategy works for their business and offers the level of security required.'

He added, 'Hyperscalers are still a popular choice with businesses due to their established names. However, as they are so vast, it is impossible to provide all but their largest customers a level of personalised service and support that takes into account the intricate needs of every organisation. In most cases, hyperscalers, will direct customers to their public cloud offering, which in the first instance is fairly cheap. However, this quickly changes when customers are then persuaded to pay extra for a series of add-ons to bolster their service.'

## NEWS IN BRIEF

The Telecommunications Industry Association (TIA) TR-42 TR-42.7 engineering committee on telecommunications copper cabling systems (568) has issued a call for interest for document TIA-568.2-D-2 titled Balanced Twisted-Pair Telecommunications Cabling and Components Standard Addendum 2: Power Delivery Over Balanced Twisted-Pair Cabling.

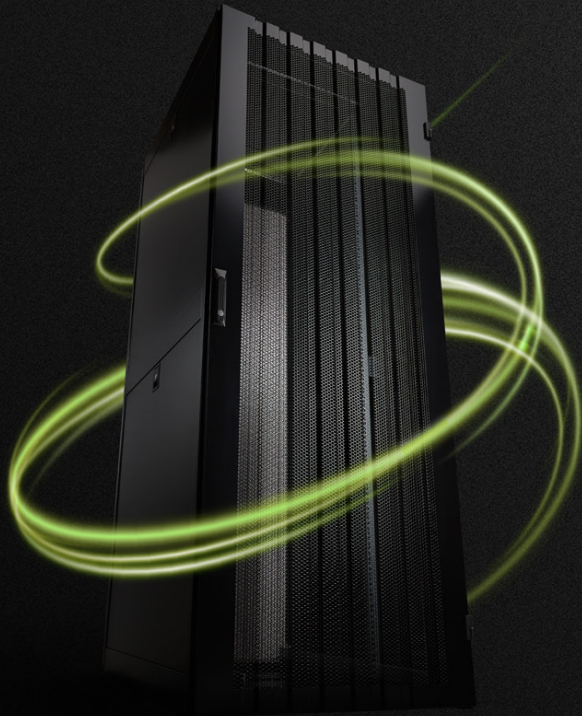
Rittal has received the Rising Star award in the edge computing category from the Information Services Group (ISG).

Paul Finch is to lead Kao Data as interim CEO through the expansion phase of its 43.5MVA campus development.

Global M&A activity in telecoms infrastructure is showing little sign of cooling, with an estimated \$62bn of significant sized deals expected to come to market before the end of 2019, according to TMT Finance.

In the first six months of 2019, artificial intelligence (AI) companies in the UK secured a record breaking £803.9m of investment. This figure surpassed the UK's entire AI funding in 2018, and represents a sixfold increase since 2014.

ZTE Corporation has won The Greatest Commercial Potential for Edge Computing Concept Award at the Edge Computing Congress for its Slice Store for MEC solution.



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# Taking care of business

## Hi Rob

Artificial intelligence (AI) will play a huge role in the future of wireless networks and will impact those who wish to protect, or attack, them. Given the speed at which this landscape is changing, it is important to acknowledge how our not so distant future is likely to be affected by AI.

In our context, AI is the development of computer systems and software that can replicate processes usually requiring human intelligence. In other words, AI imitates fundamental human behaviours using predictive intelligence based on big data, such as movement (robotics), hearing (speech recognition) and vision (object recognition). However, the inevitable future of AI being able to exceed human capabilities is both an exciting and terrifying prospect.

Given that cybercriminals are rapidly becoming more sophisticated and organised, the cybercrime pandemic we

are currently facing will inevitably worsen throughout 2019. The organisation of cybercrime is now so extensive that would-be cybercriminals don't have to be technical experts. AI allows them to use very targeted, automated tools and these may even learn as they go, getting incrementally better at causing harm – AI learns, develops and grows just like a human brain.

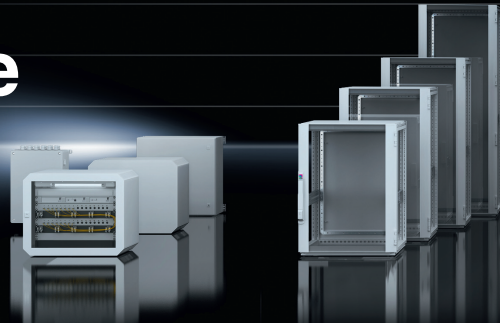
The biggest lesson to be drawn from this is that many traditional network security measures are no longer good enough. No firewall or out-of-the-box virus checker can compete with that. In 2019 we must all move on. Small and medium sized enterprises (SMEs) with limited security resources are likely to be most vulnerable. However, due to the pinpoint accuracy with which AI powered crypto-viruses are being deployed, everyone is at risk of this developing threat.

To combat AI cyberattacks, adoption of advanced threat protection (ATP) will

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increase, as it provides real time monitoring and protection of the network to detect threats before they have any chance of deployment. Cloud computing, combined with a more virtuous application of AI, gives ATP another edge. Machine learning allows it to understand and thus detect evolving threats. Systems are then able to make meaningful predictions and mitigate threats effectively – just like human understanding, the AI protective system will learn and grow.

Sandboxing is another crucial part of ATP. By effectively detecting and blocking malware before it is deployed, the risk to systems and networks is minimal. What's more, current sandboxes use the power of AI to share intelligence with cloud based ATP and associated networks, meaning everybody benefits from almost immediate protection. This machine learning might have occurred a year, a week, a day or even 10 minutes ago – AI can use all of it, fast.

Whilst we are not yet at the point where ATP and sandboxing can replace all other security measures, the advancement in AI driven security means the future is looking brighter for SMEs protecting their networks rather than those attacking them.

**Thorsten Kurpjuhn**  
Zyxel

### Editor's comment

The potential size, scale and impact of cyberattacks cannot be overstated and Thorsten makes this abundantly clear. His point about traditional network security measures often being unfit for purpose is spot on and those that are ignoring the need to tighten up their network security are flirting with disaster. It will be interesting to witness how AI can help with this moving forward.

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# Pack it up!

In light of some high profile companies in the network infrastructure industry launching initiatives to reduce the amount of plastic packaging they use, [Inside\\_Networks](#) has assembled a panel of industry experts to examine whether more could, and should, be done to make this the norm and the benefits of working with companies that operate sustainably

▶ It would finally appear that the message about reducing the use of plastic, and packaging generally, has finally got through to manufacturers and distributors of network infrastructure products and systems. Not only is this great news for the environment, it demonstrates a level of social responsibility that, it could be argued, has been sadly lacking in the past

such a policy is based on the notion that end users of network infrastructures only want to work with companies whose products and services can help them achieve their own environmental objectives.

Another way of looking at it is that companies see being green as a route to winning more business and increasing their profitability. There's nothing wrong with

ARE NETWORK INFRASTRUCTURE MANUFACTURERS AND DISTRIBUTORS DOING ENOUGH TO REDUCE THE AMOUNT OF PLASTIC USED IN THE PACKAGING OF THEIR PRODUCTS? CAN WORKING WITH COMPANIES THAT OPERATE SUSTAINABLY HELP INSTALLERS AND INTEGRATORS WIN BUSINESS, AND ARE END USERS SEEKING OUT EVIDENCE OF ENVIRONMENTAL CREDENTIALS WHEN SELECTING SUPPLY CHAIN PARTNERS?

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– despite the messages about the benefits of a sustainable approach being nothing new.

Fortunately, the number of companies only playing lip service to the issue has started to recede. It also seems that the issue of 'greenwashing' that plagued the network infrastructure industry is no longer as prevalent, as the supply chain increasingly requires demonstrable proof of any sustainable activity. Companies that are actually doing very little in this regard and using what amount to little more than token gestures to overplay their commitment to the environment are getting found out.

Very few businesses choose to be more sustainable purely for altruistic reasons and a significant factor in choosing to adopt

that, but does it actually work in reality? With lowest cost still a dominant factor in the tender process, going the extra mile in terms of being environmentally could be a case of a lot of investment for very little reward.

To assess the current situation and find what more could be done to make the network infrastructure sector reduce waste, and be more environmentally conscious when it comes to the use of plastic, [Inside\\_Networks](#) has assembled a panel of industry experts to discuss the issue.

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.

## SCOTT BAKER

ASSOCIATE DIRECTOR AT MACE GROUP

Social consciousness surrounding single use plastics was awoken with mainstream media coverage and award winning TV programmes like Blue Planet II and Drowning in Plastic. It's worth remembering that it takes approximately 1,000 years for plastic to degrade, 32 per cent of global plastic waste ends up in the ocean and, if nothing changes, by the year 2050 plastic will outweigh fish in the oceans.

In general, manufacturers and distributors were slow to react to the issues with waste packaging, and are now faced with changing and adapting, or risking reputational damage and, ultimately, business revenue.

Working sustainably does not automatically equal more business, however, at a certain level it is expected. Reputable manufacturers, distribution houses and integrators are all focused on sustainable trade and continue to produce annual sustainability reports that prove they are tackling carbon reduction, sustainable material sourcing and corporate social responsibility. However, single use plastic waste is a specific sustainability issue.

Consolidated deliveries, reduced freight, smaller packages and increased productivity are by-products of reducing single use plastic, and benefits that should

be embraced in an industry searching for differentiation and efficiencies to win business. Many distributors offer

professional 'ready' services to reduce packaging and increase productivity for integrators, and these services in the short to medium-term should be embraced whilst manufacturing companies change their packaging and catch up.

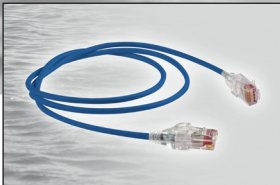
Clients are now demanding that the specific single use plastic issue is tackled. In the last year we have had four clients in differing sectors make positive

procurement decisions based on single use plastic reduction. This client decision making, coupled by influential consultant specifications, will accelerate the required change and set a precedent. In time this will become business as usual.



**'In general, manufacturers and distributors were slow to react to the issues with waste packaging, and are now faced with changing and adapting, or risking reputational damage and, ultimately, business revenue.'**

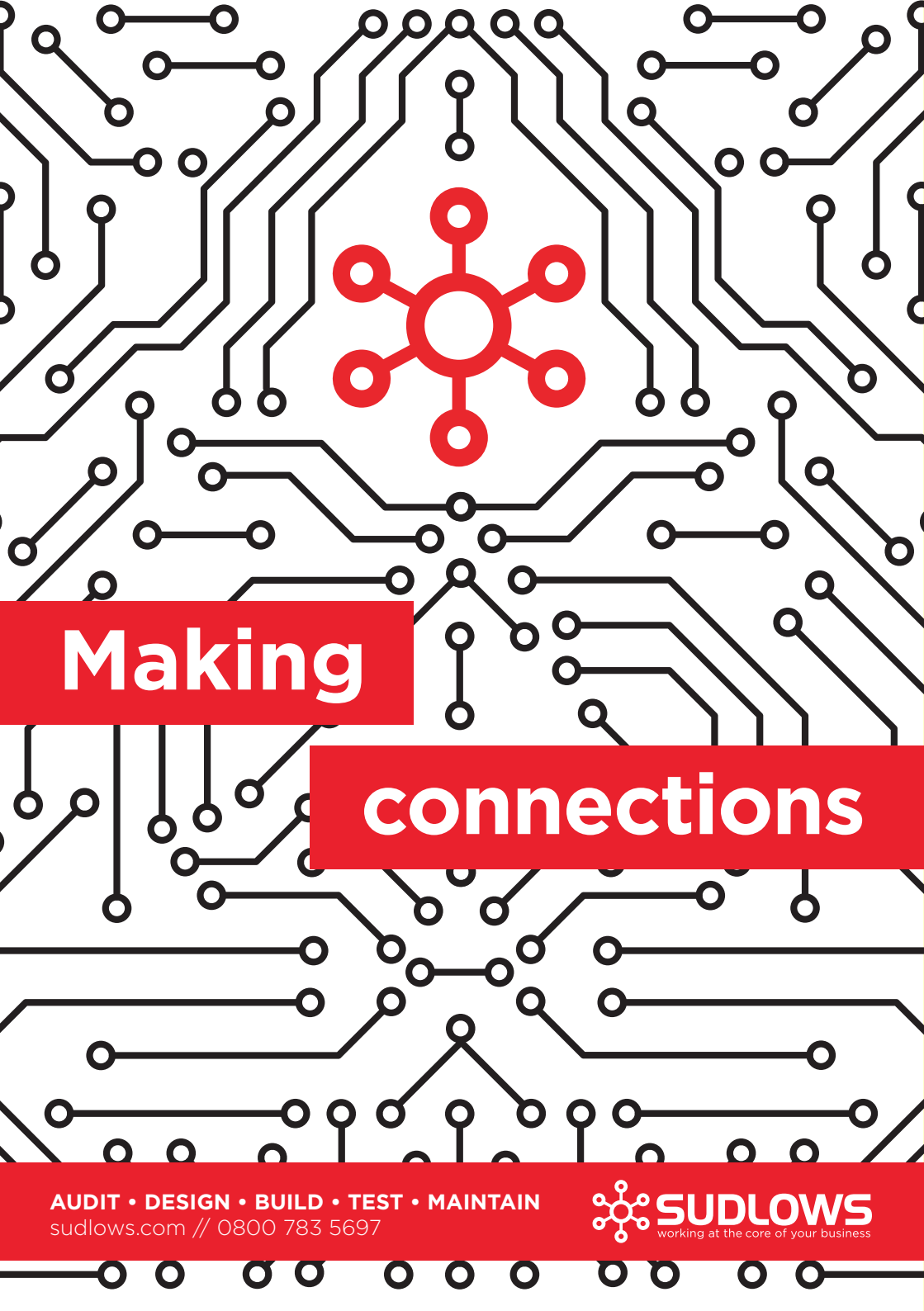
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## JOHN BOOTH

MANAGING DIRECTOR AT CARBON3IT

No, yes, sometimes!

Equipment manufacturers use vast amounts of plastic in their packaging, from tiny little end caps to huge plastic bags, together with formed plastic baffles and boxes. It's therefore high time they reviewed the packaging and transportation of their items, and reusable or recyclable packaging should be the norm not the exception. Some companies offer to recycle printer cartridges via X as a service (XaaS) and perhaps there is a case for using packaging as a service, where items are delivered and returnable in fully recyclable packaging.

It appears that the world is facing up, slowly, to the climate emergency but there is also a resources emergency. Rare earth and other critical raw materials for computing are in short supply or from questionable sources, and it stands to reason that working with companies that operate sustainably will help installers and integrators win business. We can see this with requests in tender documents for ISO 14001 from both the public and private sectors. In the past this may have just been considered to be a tick box exercise, but in the future it is likely to become mandatory.

With respect to environmental credentials, we expect to see a lot more evidence being requested by end users, but this depends on the knowledge of the procurement teams and the support of the senior management. Unfortunately, a lot of senior management come from an

era where considering the earth simply isn't in their DNA, and you can expect pushback from them. The key here is to show financial benefits as well as environmental stewardship in proposals. During the EURECA project we recommended that public sector organisations adopt the 'magnificent seven' standards. These are ISO 9001 and ISO 14001, which in most cases are already mandatory, ISO22301, ISO 27001/ISO 50001, being a participant in the EU Code of Conduct for Data Centres and using the EN 50600 standards for the design and construction of data centres.

In essence, the world is changing its views with respect to environmental credentials and in the future it will either be mandatory or strongly recommended to obtain them. Don't miss out on contracts because you're seen as being environmentally unfriendly!

**'Rare earth and other critical raw materials for computing are in short supply or from questionable sources, and it stands to reason that working with companies that operate sustainably will help installers and integrators win business.'**



## TRACEY CALCUTT

MARKETING MANAGER AT EXCEL NETWORKING SOLUTIONS

Thanks to the increased profile given to the damage that plastic waste causes to the environment, significant progress has been made in many business to consumer (B2C) sectors in significantly reducing or eliminating the use of plastic in packaging and product production.

Unfortunately, this progress has not been as visible in many business to business (B2B) markets, including that of structured cabling. Suppliers use huge volumes of single use plastic packaging to protect the products, keep components

together, allow visibility of the product, and to assist aesthetics and branding. Plastic is used because it's cheap, light and enables high density packaging solutions.

On close review, the significant amount of the plastic currently used is, quite simply, unnecessary – oversized bags, bags in bags, and other ‘over the top’ approaches are common with suppliers. The ownership and responsibility for action lies completely with the factories and suppliers putting product into the market. This sector of the supply chain must stand up the challenge, accept responsibility, stop talking the talk, and start to deliver appropriate alternatives to their customers.

Whilst many suppliers have failed to take the initiative in this area to date, we have noticed increasing specifications/tenders stipulating reductions and, in some cases, total removal of single use plastic before

goods arrive on-site. It seems, therefore, inevitable that those vendors that have not yet acted will need to do so – or start to be excluded from certain tenders.

Aside from the obvious environmental benefits of plastic free packaging, installers and end users adopting these solutions improve their own corporate social responsibility (CSR) position. They can also take advantage of significant time and cost benefits, specifically in on-site product preparation and waste disposal. Our internal research has shown savings of 60 per cent in

connector preparation time can be gained through a change from single plastic bag packaging to plastic free multipacks.

It is clear to us that wider community expectations, environmentally conscious millennials entering the workforce and end user demand will drive the industry to a better place. Installers partnering with companies that have solutions in the market today can lead this positive development.



‘On close review, the significant amount of the plastic currently used is, quite simply, unnecessary – oversized bags, bags in bags, and other “over the top” approaches are common with suppliers.’



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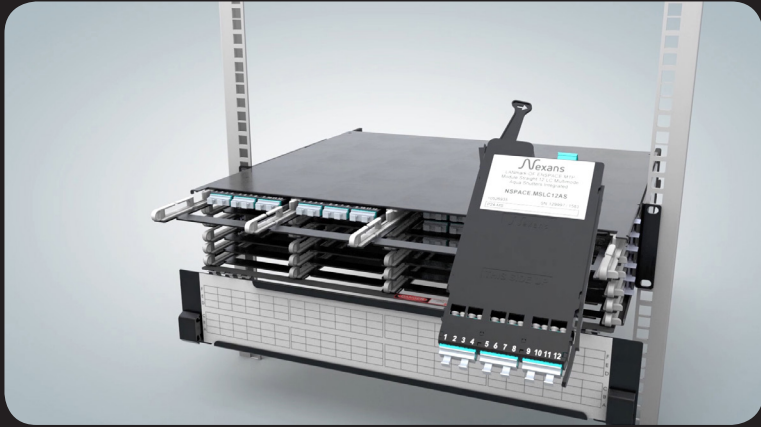
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 **Nexans**  
BRINGS ENERGY TO LIFE

## DARREN GREEN

SENIOR TECHNICAL PROJECT MANAGER

For too long the volume of plastic packaging in the supply of materials from most network infrastructure manufacturers and distributors has gone unquestioned and unchallenged.

Since December 2017, when the devastating impact caused by waste plastics on our environment were first highlighted on Sir David Attenborough's Blue Planet II, companies and industries alike have been leading a revolution in tackling the excessive use of plastics, especially single use plastics. Unfortunately, in my experience, only a small minority of companies in our industry have either historically combatted plastic packaging, or have joined the revolution in taking accountability of their environmental impact and begun to make positive changes in efforts to go plastic free.

Over the last year I have begun to see clients, consultants, main contractors and construction managers introduce specific corporate social responsibility clauses on the removal of plastic within a project's supply chain in their briefs, and with the specification and selection of integration partners. That trend is only set to continue.

Partnering with companies that are leading the way in operating sustainably in our industry will undoubtedly become a significant factor in winning business, especially with those who have already implemented campaigns targeting tangible

reductions. Winning business will obviously never be decided on a sole factor alone. Most companies have a robust selection criteria, but with the requirements of plastic reduction high on the agenda, I see it becoming a prerequisite to working on certain projects. Evidence of environmental credentials when selecting an integration partner and any respective system within a work package are already being sought.

Besides the ethical reasons, which are unarguable, a surprising benefit noted by some integrators is that a reduction of plastic packaging can subsequently decrease the time required to undertake certain tasks. The removal of individually packaged

components such as modules and patch leads, for example, can lead to significant timesavings which ultimately equal cost savings, particularly on large projects.

Don't get left behind. It's time to act, so act now.



**'Only a small minority of companies in our industry have either historically combatted plastic packaging, or have joined the revolution in taking accountability of their environmental impact and begun to make positive changes in efforts to go plastic free.'**

## KEITH STEWART

PRODUCT MARKETING MANAGER AT NETWORKS CENTRE

A distributor's environmental responsibilities and what is achievable are closely coupled to its manufacturing partners regarding packaging reduction. I believe many companies in our industry have grasped the nettle and are making strides. We're no exception and are working with our leading brands.

Holistically viewed, sustainability, of which plastic packaging reduction is one part, includes products, packaging, transport, staging and end of life disposal. We must not lose sight of the fact that many products themselves are largely made of plastic, especially cable. How these are managed end to end is crucial, requiring joined up thinking across the supply chain. In the short to medium-term though, we estimate that a goal of at least 50 per cent reduction in plastic packaging is realistic.

I think product pre-configuring initiatives are where companies like Networks Centre are making a big contribution. This not only reduces waste on-site, but enables greater control of recycling, packaging reduction and reuse. Take a humble 48-port loaded fibre patch panel, for example. We've worked with suppliers to create a rack ready product, reducing plastic bags from over 50 to just two. This is just one initiative taking place across industry and collectively these make a significant impact. It's corporate responsibility – not just something to gain an edge.

Whilst single use plastics and disposal

have rightly gained much publicity, it's crucial not to lose sight of other pollution aspects. Fossil fuel usage and pollutants associated with transport are significant. We can influence this directly. Shipping from a European factory uses less fossil fuel based energy and CO2 than Far East

locations, particularly in terms of sulphur and particulates, which are significant in sea transport.

All pollutants, including plastic, are a serious threat to our planet. Strategies that take into consideration every aspect of sustainable business should be adopted under, for example, the umbrella of ISO 14001.

It makes good business sense and ensures that this is embedded into a company's processes and procedures for the long-term.

End users and installers, through corporate governance, will also play their part and increasingly select products that minimise single use plastic and make the supplier responsible for reusing and recycling responsibly.



**'Holistically viewed, sustainability, of which plastic packaging reduction is one part, includes products, packaging, transport, staging and end of life disposal.'**

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Shaping our industry.  
Enabling business growth.  
Getting you specified.

## KATHRYN AVES

MANAGING DIRECTOR AT BLUEPOINT TECHNOLOGIES

Over the past 12 months, the reduction of plastic packaging and organisations' sustainability practices have become a large part of the network infrastructure industry, with some manufacturers leading the way with recycled and/or plastic free packaging.

As an installer, it's key for us to be able to promote this, especially after having completed a carbon neutral cradle to grave project on an installation in 2018. The installation was declared carbon neutral and produced a reduction in the carbon emissions for the data cabling infrastructure on the customer's site. As far as we're aware, this project was the first of its kind in the UK – which is an indicator in itself that the network infrastructure industry still has a way to go in terms of its impact on the environment, now and into the future.

Are manufacturers doing enough? I do think that all are doing their bit, although my perception is that some manufacturers are definitely doing more than others. This could be more due to their method of marketing, rather than their actual effort, as I do believe every key manufacturer in the industry is working hard to reduce plastic packaging. However, there are always challenges that go hand in hand with this, and the protection of the product in shipping from manufacturing to the end user also has to be of paramount

importance. As a business, we make every effort to understand what our supply chain partners' sustainability practices are so we

can communicate this with, and educate, our end users.

Whilst currently we observe that buying decisions tend to be weighted in favour of functionality, quality or price, over the sustainability efforts of the companies that are manufacturing and distributing the products, we do

anticipate this changing in the near future. In 2019, the use of plastics, especially in product packaging, has garnered a lot of media attention and as more industries and organisations get on board we anticipate a stronger buyer focus on products whose manufacturers have incorporated a strong sustainability culture into their organisations.

‘Whilst currently we observe that buying decisions tend to be weighted in favour of functionality, quality or price, over the sustainability efforts of the companies that are manufacturing and distributing the products, we do anticipate this changing in the near future.’



# Optimise PoE switching with Edgecore Networks

If you are looking to deploy PoE networks, look no further than the Edgecore Networks **ECS4620-52P** switch, which is available from **Mayflex**

▶ With a maximum power budget of 780W, giving full IEEE802.3af PoE on every port, the Edgecore Networks **ECS4620-52P** is a perfect fit for high density deployments where the benefits of PoE technology can be leveraged.

The switch is designed with peace of mind built in, ensuring your PoE system works with optimum performance. Some key features are:

## Control

If a device is connected to a switch port and the switch detects that it requires more than the power budget set for the port or to the overall switch, no power is supplied to the device (i.e. port power remains off).

If a device is connected to a critical or high priority port and would cause the switch to exceed its power budget as determined during boot-up, power is provided to the port only if the switch can drop power to one or more lower priority ports and thereby remain within its overall budget.

If a device is connected to a port after the switch has finished booting-up, and would cause the switch to exceed its budget, power will not be provided to that port regardless of its priority setting.

If priority is not set for any ports, and there is not enough power to supply all of the ports, port priority defaults to Port

1, Port 2, Port 3 and so on, with available power being supplied in that sequence.

If priority is not set for any ports, and PoE consumption exceeds the maximum power provided by the switch, power is shut down in the reverse sequence, starting from Port 48.

You can set the 'priority' per port – this sets the power priority for a port. With the options of low, high or critical. The default setting is low.

## Keep up and running

The IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, ensuring a faster

recovery from failed links and enhancing overall network stability and reliability.

The **ECS4620-52P** switch supports G.8032 Ethernet Ring Protection



# gecore

Switching, with the ability for the network to detect and recover from incidents without impacting users, meeting the most demanding quality and availability requirements. Rapid recovery time when problems do occur is as fast as 50 milliseconds.

## Enhanced security

Port Security limits the total number of devices using a switch port and protects against MAC flooding attacks. IEEE 802.1X port-based or MAC-based access control ensures all users are authorised before being granted access to the network.

## Mayflex Specialist Support Services

If you want to take advantage of these built in features from the moment the unit



is delivered, the Mayflex Specialist Support Services team can pre-configure the unit and set the device up to your desired requirements and

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**E d g e - c o r e**  
**NETWORKS**

configuration.

**CLICK HERE** to watch a short video of this service.

## Edgecore Networks, available from Mayflex

Mayflex distributes the Edgecore Networks range in the UK and leads the way in converged IP solutions.

When dealing with Mayflex installers can be assured of the following:

- Large stock availability – 98 per cent of orders fulfilled from stock
- Online Track and Trace programmes – giving you a quick and easy way of checking on the progress of your delivery
- Access to demo and meeting room facilities in Birmingham, London and St Neots – available free of charge
- Comprehensive infrastructure and security product range
- Access to a team of converged sales specialists

**CLICK HERE** for more information about the full range of Edgecore Networks products.

Contact our team directly on **0800 757565** or **CLICK HERE** send an email.

## CNet Training expands its technical development team

CNet Training has made a further addition to its technical development team with the appointment of Clint Sherratt. As a technical developer, he will focus on developing and maintaining the company's network infrastructure programs and will liaise with manufacturers, consultants and the installer communities to monitor trends and technical developments, seeking opportunities to expand the network infrastructure programs where additional knowledge, education and skills are required.

Sherratt joins CNet Training from the British Army's Royal Corps of Signals,



Clint Sherratt

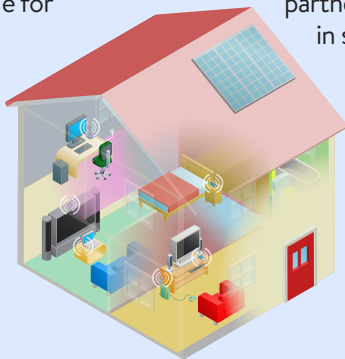
where he served in a variety of telecommunications technical roles, starting as a junior installer and progressing through project management positions, into his final role as a training designer for the British Army.

Andrew Stevens, CEO at CNet Training, commented, 'We are delighted to welcome Clint on board. He has delivered technical projects in a number of operational environments, for which he has received the highest recognition and awards including a Queen's Commendation for Valuable

Service for his role in the design, planning and implementation of a project to move the entire Task Force Helmand to a new site in Afghanistan. His knowledge of all aspects of network infrastructure is outstanding and I'm sure the whole team will benefit greatly from his knowledge and expertise.'

## Prysmian and Comtec join forces to service the FTTH market

Prysmian Telecoms UK has announced an agreement with Comtec for the distribution of its diverse range of connectivity and optical cable for the growing domestic full-fibre market. The deal with Comtec further strengthens an established Prysmian distribution channel to service the rapidly diversifying market of fibre to the home (FTTH) network builders across the country.



Adrian Austin, Prysmian Telecoms UK sales manager for telecoms, said, 'We were looking for an established, forward thinking partner, prepared to invest heavily in stock and expand its sales and key functional teams to support our growth in the UK telecoms sector. This comes at an exciting time, with Prysmian poised to launch a number of new products into a market hungry for innovation.'

## Colt Data Centre Services strengthens commitment to sustainability with new global energy director

Colt Data Centre Services (DCS) has appointed Norbert Szalay as its global energy director. He will play a pivotal role in driving Colt DCS' global energy and sustainability strategy, ensuring that current and new site developments meet the highest energy efficiency standards.

Szalay comes with 20 years of experience in global energy trade and management, having previously worked for Schneider Electric, where he supported clients in over 100 countries to achieve their energy and sustainability goals. His previous experience



Norbert Szalay

also includes setting up energy trading platforms across North and Latin America, India, Thailand and Australia for major clients with energy spend of over \$1bn.

'I'm looking forward to driving the Colt DCS energy and sustainability strategy as it rapidly expands its hyperscale data centre portfolio,' said Szalay. 'The team's commitment to the highest standards of sustainability, alongside its global expansion plans, were key factors in my decision to join the company and I am keen to leverage my previous experience to help the business achieve its goals.'

## Inside Networks

2020 CHARITY GOLF DAY 20th MAY

An opportunity to compete and entertain clients and colleagues at the superb Marriott Hanbury Manor Hotel & Country Club.

[www.marriottgolf.co.uk/club/hanbury-manor](http://www.marriottgolf.co.uk/club/hanbury-manor)

### Playing the Hanbury Manor PGA Championship Course:

This prestigious golf course was the first to be designed by Jack Nicklaus II and still incorporates features from an earlier 9-hole course designed by the great Harry Vardon. The course is now widely recognised as one of the best in England.

The event will ask for 4-ball teams to compete in a 'best 2 from 4' full handicap Stableford competition over 18 holes (with a 2-tee start from 10:30am).

Live Scoring sponsorship is available.

Golf will be preceded by tea, coffee and bacon rolls at registration and will be followed by a 3-course private dinner and prize giving with charity raffle.

There will also be opportunities for sponsorship of all aspects of the day – all raising money for Macmillan Cancer Support – since 2005 this industry event has raised over £78,500 through our charity golf events!

Supporting:

**WE ARE  
MACMILLAN.  
CANCER SUPPORT**



Indoor Simulator Competition

The cost of a 4-ball team will be £595 (+VAT).

There will also be discounted accommodation at Hanbury Manor Hotel & Country Club, which will include breakfast and use of the extensive leisure facilities. Price to be confirmed.

As in previous years – teams will be asked to provide a raffle/auction prize on the day in support of the charity.

Organised by:



Promoted & Supported by:



## Siemon discusses cabling considerations for PoE at GITEX 2019

Siemon will continue its educational programme in the Middle East by participating in a masterclass at this year's GITEX Technology Week in Dubai.

Hosted by BICSI, the masterclass is entitled Four-Pair PoE: Powering the Future of Intelligent Buildings and the IoT. It will focus on the capabilities of remote power delivery to support intelligent buildings and the internet of things (IoT) and provide insight into the cabling considerations for best support of four-pair power over Ethernet (PoE).

In this masterclass, Narender Vasandani,



Prem Rodrigues

technical manager Middle East and India at Siemon, will discuss what designers, installers, and maintainers involved in the implementation of intelligent buildings need to consider when specifying, designing and deploying new cabling infrastructure in order to mitigate the challenges associated with higher power delivery.

‘Ongoing education and development of industry professionals is a solid part of our work in the Middle East,’

said Prem Rodrigues, sales and marketing director for Middle East, India and SAARC at Siemon. ‘The intelligent buildings sector advances all the time and it requires IT infrastructures that not only meet current but also future needs.’

### CHANNEL UPDATE IN BRIEF

James Cushing has been appointed by CityFibre to lead the delivery of its Northampton project, while Steve Holliday has joined the company as non-executive chairman.

AddOn Networks has launched into the EMEA market.

Acuity Unified Communications has become an official Loway reseller partner.

Ivanti has announced three new EMEA channel initiatives – a new Platinum Elite partner status within its Partner Program to recognise and reward success, a deal registration promotional period to maximise partner profitability, and an enhanced partner portal with new resources and integrated IT systems to drive more efficient business.

MicroCare Corporation's Sticklers fibre optic cleaners have been approved for use by Openreach.

Nimans has launched a new security and AV division, spearheaded by a dedicated team of experts to help resellers capture greater levels of sales success.

Iceotope Technologies has appointed Neil Yule as non-executive director.

# Reliable. Easy.

# Versatile.

The REVConnect® system was designed to fill a marketplace gap: Reliable, easy terminations that support IP convergence across many applications.

The system utilizes a single termination method that features a universal "core" for all Category 5e, 6 and 6A RJ45 connections. One termination method is used for every component in the system.

Revolutionizing RJ45 terminations, the system supports next-generation devices: high-definition displays, wireless access points, PoE LED fixtures and surveillance cameras with up to 100W of power.

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Category 6a REVConnect Plugs

Category 6a Loaded  
REVConnect Patch Panels

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# Past, present and future

Marc Garner of Schneider Electric examines the evolution of cloud based data centre infrastructure management (DCIM) software

Like many emerging technologies before it, DCIM has had to endure its passage through a hype cycle in which analysts initially predicted optimistic figures for its acceptance, before revising their projections downwards when expectations were modified by experience. Early predictions found a total market opportunity of \$10bn but, as time went by, those figures declined. Soon a market of \$7.5bn was predicted, followed by a more modest \$3bn, before eventually arriving at an estimate of a mere \$700m worldwide.

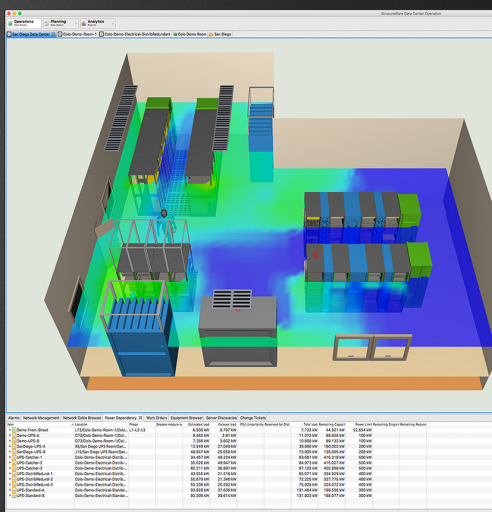
## REASONS BEING

There were a number of reasons for the disappointing take up of DCIM software. Three frequent complaints were that solutions were too hard to install, too complicated to maintain and that they didn't provide operators with the answers they needed to make decisions.

Other issues were a lack of market definition – one analyst encountered more than 200 companies claiming to be DCIM vendors of one sort or another. Then there was the issue of whose problem was to be solved – was it an issue for the IT department or the facilities management people? If there was a question of whose budget was to be sourced to pay for any installations, how could an adequate measure for return on investment (ROI) be prepared for the financial managers,

who ultimately decide on whether an investment in software should proceed?

Finally, there was, and remains, the issue of a continually moving target. DCIM was originally conceived to manage large single data centre deployments typically owned by one organisation. However, as the market continues to evolve into a hybrid model, with large, centralised cloud facilities, supported by smaller, regional or metro data centres and an increasingly growing number of smaller, micro-modular data centres at the edge of the network, the task of managing such an environment has become ever more complex.



## ON THE EDGE

Despite the teething problems, there remains an inherent need for the effective management of data centre assets. This is made all the more pressing by the growth of the edge computing, where permanent on-site staff at every installation is neither a viable, nor a cost effective option.

Gartner predicts that by 2025, 75 per cent of enterprise generated data will be created and processed outside of a traditional data centre or cloud. It follows that a greater proliferation of small widely dispersed data centre installations will require intelligent cloud based management tools to operate effectively.

There are three key enablers for the edge. Firstly, remote management with simplified and secure monitoring, 24/7 visibility and predictive analytics. Secondly, greater physical security to prevent unauthorised access to critical IT equipment. Thirdly, rapid deployment to ensure a standardised, repeatable

and quick to deploy approach. For today's businesses, DCIM software, therefore, remains absolutely crucial and without 24/7 insight into the IT environment, companies cannot hope to become more energy efficient, sustainable or improve costs.

## UP IN THE SKY

Software to manage this complex edge environment has had to adapt and learn key lessons

from traditional DCIM. The issue of being too hard to install, for example, has been addressed by adopting a cloud based approach to software deployment, meaning newer solutions are far quicker to implement and scale than legacy software applications.

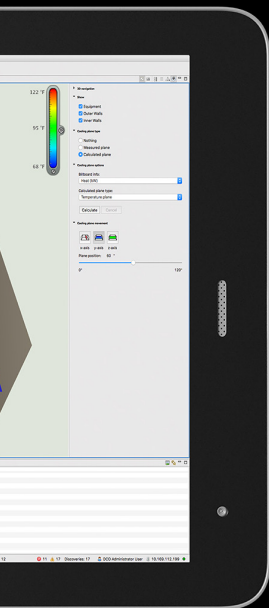
Instead of a large upfront investment in a corporate, site based system, operators can now also choose to utilise a subscription model, which eases the installation of DCIM software and makes it available to as many subscribers, or stakeholders, as needed. This reduces the large upfront capital expenditure and allows companies to manage a larger portfolio of data centre assets – no matter their size or location.

The new and evolved software model also ensures that the user is always running the latest version in a more simplified and structured manor, as updates can be managed centrally via the cloud. Many companies within the market today are running outdated versions of legacy DCIM, so with the cloud based approach, this problem diminishes rapidly.

## NEED FOR SPEED

For many, it also reduces the barrier to deployment. For example, some traditional software installations could take over 60 days to implement and train operators to use. With cloud based DCIM this can be reduced to a just few days, with devices connected in only a matter of hours.

The final issue facing operators in this hybrid environment is the need to engage with specialised service partners or managed service providers, especially when providing maintenance at a number of remote sites. The cloud based DCIM model makes it far easier to deploy software across a greater volume of secure



‘Gartner predicts that by 2025, 75 per cent of enterprise generated data will be created and processed outside of a traditional data centre or cloud. It follows that a greater proliferation of small widely dispersed data centre installations will require intelligent cloud based management tools to operate effectively.’

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devices, so third parties can be provided with the requisite information to react to any critical infrastructure issues in real time.

Overall, this next generation of cloud based DCIM provides simplified remote monitoring, with real time visibility of any internet of things (IoT) enabled infrastructure solution, 24/7, anywhere, on any device. For the owners and operators responsible for a greater number of distributed edge sites, this includes monitoring via smartphone applications.

### **DELIVERING THE GOODS**

Combined with the power of data analytics and artificial intelligence, cloud based data centre infrastructure management software has evolved to deliver predictive insights into IT issues, enabling timely and proactive servicing to be performed. Given the dispersed nature of today’s data centre and edge computing environments, coupled with the move towards digitally driven services, this new and evolved form of DCIM becomes critical when ensuring reliability, uptime and availability for the always-on businesses of today. ■

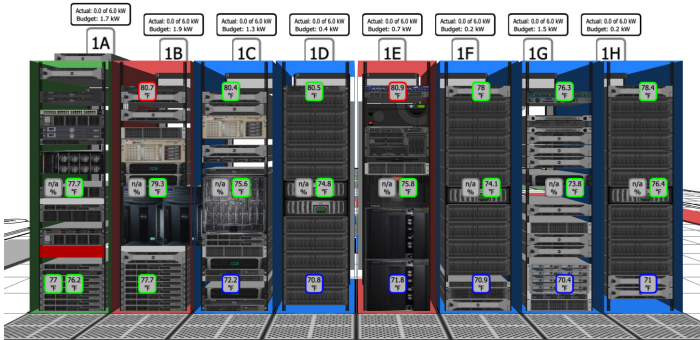




## MARC GARNER

Marc Garner is the vice president of Schneider Electric's Secure Power Division in the UK and Ireland. He is a 13 year veteran of Schneider Electric, having joined the company after graduating from the University of Sunderland. Garner is tasked with continuing the successes of Schneider Electric's integrated power, cooling and software solutions for data centres, server rooms and edge computing installations throughout the UK.

## Sunbird Software



Sunbird Software is the industry leader in second generation DCIM, with a vision to radically simplify data centre management with elegant software that's fast, easy, and complete. Our modern, elegant graphical user interface allows you to manage assets, space, power, cooling and cabling for complete best in class capacity and uptime management.

We've pioneered a customer first,

second generation DCIM solution with zero configuration analytics, superfast deployment times, ease of use, automation via integration and extreme scalability. We offer over 100 free plug-ins for seamless integration to your

existing systems including Raritan, Server Technology, Starline, Legrand, CPI, APC, BMC Remedy, Cherwell, VMware and ServiceNow, just to name a few. To read the full list [CLICK HERE](#).

Sunbird is five-star rated by enterprise customers. To read real testimonials, [CLICK HERE](#).

[www.sunbirddcim.com](http://www.sunbirddcim.com)

## Excel Networking Solutions

40



Excel Networking Solutions offers a range of intelligent power distribution units (iPDUs) that are designed to simplify DCIM.

The Excel iPDU family offers a high specification portfolio of products that are designed to suit any environment, where monitoring or managing of information is required. The iPDUs are a highly flexible solution, with all versions having a built-in environmental centre covering a series of functions for optimum monitoring and measuring, even down to individual socket monitoring and switching.

In a data centre, where security and effective management of the network infrastructure is paramount, the Excel iPDU range offers a [variety of options](#) to provide the most suitable power equipment for the environment. See the [full range here](#).

For more information about Excel Networking Solutions [CLICK HERE](#). To contact the sales team call 0121 326 7557 or [CLICK HERE](#) to send an email.

[www.excel-networking.com](http://www.excel-networking.com)

## EDP Europe

Sensorium DCIM, available from EDP Europe, is a flexible and modular DCIM platform that uses 64bit .NET architecture to deliver unrivalled performance and expandability. Its powerful communications engine delivers real time, historical, and alarm event information from intelligent power, environmental, security and life safety systems to its fully customisable web based, script powered graphical user interface.



The resulting real time and historical data, when combined with Sensorium's asset

and patching register database information, can be used for available space and power based capacity planning and, uniquely, for regression analysis based cooling capacity forecasting. The functionality and information from which is crucial for identifying opportunities for operating cost reductions for data centre operators, and additional revenue streams for their clients.

Bespoke dashboards and home screens are custom built to meet customer, department or operator's requirements so that critical information can be quickly displayed.

**CLICK HERE** to find out more, call our sales team on 01376 501337 or **CLICK HERE** to send us an email. [www.edpeurope.com](http://www.edpeurope.com)

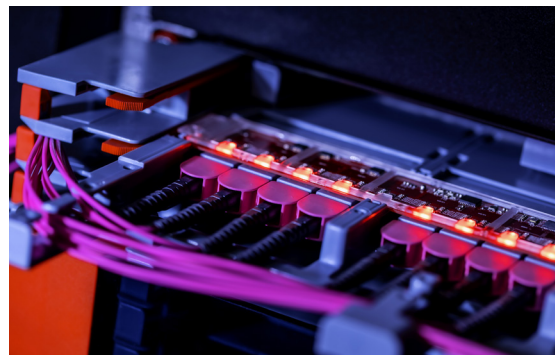
## R&M

R&M has extended its range of high density distributors and infrastructure management systems for data centres. A new fibre optic distribution platform, Netscale 72 natively supports Base 8 and Base 12 parallel optical cabling. Distribution modules for both applications fit in the same system drawers and data centres can adapt trunk cabling within existing racks and housing. In this way, Netscale 72 facilitates fast migration to new network generations.

R&M inteliPhy net is an easy to operate DCIM solution for asset, capacity and change management. Users organise and document the entire network infrastructure digitally. The program bundles and visualises all information on capacities, cabling, patch panels, racks, PDUs and IT equipment in a single


database. Component representations can be added and moved by dragging and dropping. Together with an RFID based monitoring system, R&MinteliPhy monitors all ports and patch cords in real time. Network managers can ensure they are utilising resources and satisfying quality, compliance and service requirements.

For more information **CLICK HERE**. [rdm.com](http://rdm.com)



# One step beyond

Stu Redshaw of EkkoSense explains why organisations need to look beyond DCIM if they're serious about optimising their energy performance

 We frequently criticise over complex DCIM suites and expensive, non-real time computational fluid dynamics (CFD) consultancy methods, believing it's much more useful for organisations to have a real time dynamic view of their mission critical IT estate's power, cooling and space performance. That's no doubt because we have a data centre view that's predominantly energy, thermal risk and capacity based. We believe that – as an industry – data centres still aren't doing enough to optimise their energy performance and that too many operators are simply hiding behind their critical facilities status to avoid serious scrutiny of their energy usage.

## LESS IS MORE

While it's perhaps understandable that data centre teams should prioritise risk avoidance for their critical services, the standard practice of simply adding more and more expensive cooling hardware to handle their escalating IT capacity demands is now unsustainable. With the renewed focus on climate issues, areas of excess energy consumption such as data centres are increasingly coming under the spotlight. And for the growing number of organisations making clear commitments towards net zero emissions, energy inefficient data centres are storing up a serious carbon issue for their transition towards net zero.

Today's data centre infrastructure has never been under more pressure, with increasing IT load demands placing an ever more onerous requirement on operators to run their critical facilities more efficiently. Perhaps it's time to stop treating efficient data centre operation as a black art. You shouldn't need over complex DCIM suites or often imprecise external CFD consultancy to tell you what's actually going on in your data centre.

## KEEPING IT REAL

DCIM itself can take years to implement, and often ends up costing more than originally quoted. And while CFD can be valuable, it's more suited as a tool to support the design process – certainly not for use in a live dynamic environment. Data centres operate in real time, so it's really important that the systems supporting them also need to operate in real time.

Some organisations remain solely reliant on their building management systems (BMS) to help manage their critical facilities, but BMS systems don't have the required datapoint density to optimise the critical space, and are certainly not dense enough to manage an optimised site in a risk free way. Because BMS sensors typically report on a blend of hot and cold average temperatures, it's easy to be lulled into a sense of false security, as things generally look great. But that's not rigorous enough for true optimisation and



- A
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‘By combining software driven thermal optimisation with much higher levels of real time sensing there’s now an opportunity to provide data centre teams with exactly the kind of data driven decision making and scenario planning insight that **DCIM** customers have always been looking for.’

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reduced risk operation, particularly if you need to be certain that all of your different racks are performing within precise temperature and power parameters.

### **BUILDING A BRIDGE**

While approaches such as DCIM and CFD have clear issues when it comes to optimising data centre energy performance, is it fair to blame them for this shortfall? Realistically, DCIM has always been the preserve of the IT function and the subject of expensive deployments designed to provide in-depth insights into the performance of their IT platforms.

Encouraging DCIM to actually cover off both the requirements of the IT manager and the facilities manager has, possibly, been too much of a utopian vision. For pure IT performance management, DCIM offers great functionality but it is much less successful at providing real time visibility of an organisation’s physical infrastructure. That’s probably because there’s never really been the operational or financial will to make this happen, with organisations content to keep on adding more and more cooling hardware to keep their systems working within their risk guidelines.

The problem here is that this approach isn’t really working well enough anymore. The combination of rising climate temperatures, uncertain data centre

capacity levels due to a continued shift towards public cloud services, and the move towards less efficient edge centres has made optimising performance much harder to achieve. According to the Uptime Institute, average Power Usage Effectiveness (PUE) has actually gone up over the last 12 months, with a rise from 1.58 in 2018 to 1.67.

### **DEAL OR NO DEAL**

You could say that DCIM vendors and their implementation partners have had over 10 years to sort this out, but with PUE going up it’s looking like their infrastructure management suites aren’t effective at dealing with the critical issue of energy optimisation. DCIM is great at analysing IT systems, just less good at dealing with their risk and energy aspects.

The good news is that by combining software driven thermal optimisation with much higher levels of real time sensing there’s now an opportunity to provide data centre teams with exactly the kind of data driven decision making and scenario planning insight that DCIM customers have always been looking for. For example, we recently worked with an organisation on a thermal optimisation project where the client was able to turn off several computer room air conditioning (CRAC) units, while simultaneously reducing a

number of worrying hotspot temperature across the data hall. This simply wouldn't have been possible without live data from across the estate.

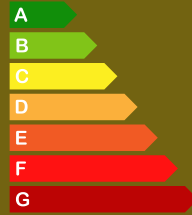
### TIGHTER INTEGRATION

It's now vital that there's an increased emphasis on greater integration between facilities management operations and their IT counterparts. It's certainly an area of interest for ASHRAE, whose commitment to sustainable solutions for the built environment encourages members to consider all aspects of their data centre performance including energy efficiency.

This is reflected in the publication of an ASHRAE Datacom series book – Advancing DCIM with IT Equipment Integration – that outlines how a well implemented data centre needs to account for the hundreds, if not thousands, of connected devices and sensors that make up today's data centres. Recognising the need for teams to more intelligently manage, control and optimise their data centre operations, the publication notes the requirement for a range of ASHRAE recommended data centre monitoring bands, from basic whitespace issues and IT focused metrics to more plant focused facility measures.

### SMART THINKING

So, at a time when data centre performance optimisation has never been more important, it's great that industry bodies such as ASHRAE are leading the thinking in this area. Perhaps by applying the kind of software driven performance optimisation that allows you to monitor, manage and maximise your data centre operations in real time, there will be an opportunity to really bridge the traditional facilities management/IT divide? ■



### STU REDSHAW

Stu Redshaw is chief technology officer of EkkoSense. He holds a doctorate in heat transfer and thermodynamics from Nottingham University and specialises in revolutionary clean tech and energy efficient systems. In addressing today's data centre thermal challenges, his goal has always been to look at technical problems from first principles and challenge the status quo.

# Short term thinking equals long term loss – how to create a sustainable business

Axis' commitment to sustainable business values

by Jens Strinsjö, Business Development Manager Architecture & Engineering Program, Nordics

 **Jens Strinsjö:** [www.linkedin.com/in/jensstrinsjo/](http://www.linkedin.com/in/jensstrinsjo/)

*Short term thinking equals long term loss.* That's the lesson our Western business culture must understand to effectively operate in our modern world. It is still the view of many, especially within mid-sized and large enterprise, that values come second to pragmatism. High-minded goals regarding sustainability shouldn't interfere with profit-making activities. However, in a rapidly changing market driven by innovative technologies that are disrupting every industry, there are only two truly long-term markers of competitive advantage: competence and values.

Competence, of course, ensures that products stay relevant and are trusted by customers; a commitment to excellence in a market that rapidly matures and becomes commoditised will always be a key differentiator for Axis. This is only possible, however, with a commitment to values. Developing a cohesive company culture that always looks to long-term sustainability over short-term gain is what underpins the decision-making process, which is important in a market that is constantly providing us with new challenges. That is why, underpinning Axis' sustainability strategy, is a commitment to the UN Global Compact and its 10 principles on human rights, anti-corruption, the environment and labour.

## Developing technology with integrity

Sustainability is about more than just environmental concerns and today, as awareness grows of poorly implemented cybersecurity practices in light of GDPR, the IoT world in which we operate is at risk of being caught up in a public backlash.

Operating with integrity, of which sustainability is a crucial part, is the key to retaining a customer's trust.

Regarding security, we work closely with our partners to help them understand the nuances of – for example – video surveillance technology and how it is utilised. This includes maintaining regular dialogue around the correct use of cameras and recording equipment, and the storage of data generated. To that end, there has only been one vulnerability that could affect privacy detected in Axis products last year, which was swiftly remedied, according to the vulnerability management processes that Axis has implemented as part of its cybersecurity focus. In both 2015 and 2016 there were none.

In terms of the environment, we work hard to reduce the impact of our operations, both those generated as a direct result of our business and the indirect impact related to manufacturing and energy use. We aim to reduce CO<sub>2</sub> per unit sold by 20% between 2016 and 2021. Progress towards this goal is being achieved through initiatives such as moving manufacturing closer to our largest market, and a reduction in the amount of materials used in packaging.

In our manufacturing process, we aim to reduce the use of virgin and toxic materials. New product designs are scored using a Green Design Evaluations Form, which makes clear and encourages progress towards our overall goals. The result is that 95% of materials used in Axis products can be recycled or combusted at their end of life. 93% of Axis network cameras that were sold during 2017, was PVC-free.



**Jens Strinsjö, Business Development Manager, A&E, Nordics**

## Satisfied employees and customers

A crucial part of achieving a sustainable advantage is retaining customer trust and creating a healthy working environment. Our values must be cascaded down to and shared by our team, helping ensure we address our customers' requirement of working with a business that utilises sustainable business values to create market leading technology. That is why we are pleased to have achieved a very high customer satisfaction rate of 80.8% within Northern Europe. This wouldn't have been possible without our employees, of which 91% believe Axis is a very good workplace.

For all our efforts, we, and other companies who are on the same journey towards a more compassionate and sustainable way of doing business, are still at the beginning of the process. It is important for us not to just pursue a sustainable business model, but to be seen to do so. Only once we can measure and show the value that is added through well executed sustainability programmes will they become common to all business.



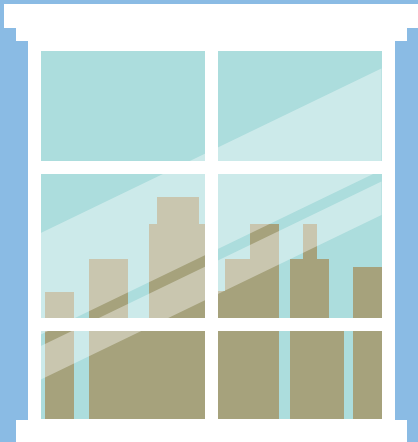
Do you want to learn more about how Axis works with sustainability, creating long term sustainable advantage and how the strategy is implemented through the "Axis pillars of sustainability"?

**Download this White Paper:**  
[www.axis-communications.com/sustainability-wp](http://www.axis-communications.com/sustainability-wp)



# Quickclicks

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

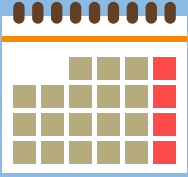


How Will Smart Buildings Help Solve the Challenges of Today and Tomorrow? is the question posed in a blog by Andreas Reckers of **Nexans**. [CLICK HERE](#) to read his answer.

The Use of Plastic Cable Ties and Fixings at High Level is a technical note by Paul Cave of **Excel Networking Solutions**. [CLICK HERE](#) to read it.

**Schneider Electric** has introduced a Prefabricated vs Traditional Data Center Cost Calculator, providing users with a cost analysis for considering the best approach to deploying new IT infrastructure and delivering key insights into procurement decisions. [CLICK HERE](#) to see it.



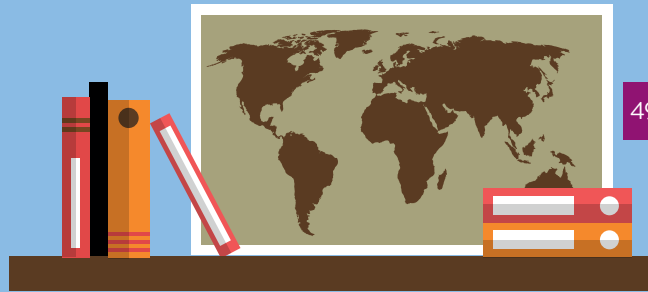


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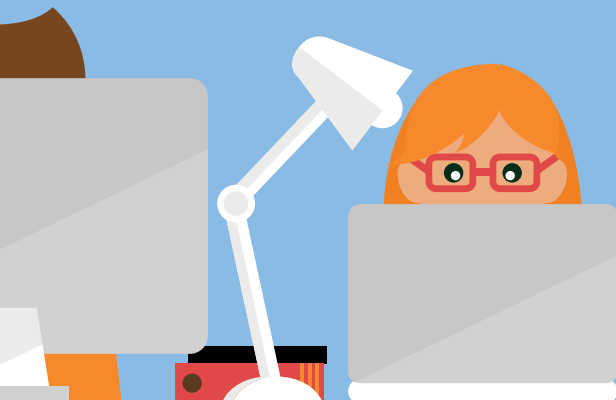
Quantifying Risk in Today's Computing Infrastructures is an on-demand webinar from the **Uptime Institute**.  
**CLICK HERE** to watch it.

10 Steps to Smart Building Success – Part 3: Technology and Evolution is a blog from Matt Salter of **ExcelRedstone**.  
**CLICK HERE** to read it.

Lighting the Way for Visible Light Communications is blog from Mark Mullins of **Fluke Networks**.  
**CLICK HERE** to read it.



The Emerging Role of Single-Pair Cabling in Enterprise Networks is a white paper from **Siemon**.  
**CLICK HERE** to download a copy.



# Put the pedal to the metal

**Kennedy Miller** of Leviton Network Solutions Europe explains why using environmentally friendly strategies and implementing a circular economy creates a smarter, greener business model



**▶** Network cabling manufacturers need to look holistically at reducing their carbon footprints. All too often a company will seek to use more sustainable or green materials here and there, but such efforts will not actually move the needle. Progressive companies have embraced several excellent green cabling practices within recent years and are exploring and championing innovative ways to do business, such as using a circular economic model for buildings and products, thus bypassing future needs for mining and natural resource exploitation.

## GREEN CABLING PRACTICES

Sustainable cabling practices that are currently in use include:

- **Cable diameters optimised to improve density in cable trays**

Slimmer diameter cable is important in existing pathways where channels may be added and lack of space can become problematic. They also reduce the need for extra trays and associated mounting materials. Additionally, smaller diameter cables are helpful in data centres, where

they improve airflow in racks and cabinets for better cooling and less energy consumption.

- **Blown fibre used for exceptional flexibility and longevity, with a high return on investment**

Air blown fibre (ABF) systems increase design flexibility, enhance longevity and reduce costs, compared with conventional optical fibre cables. They consist of a network of protected microducts installed between locations, with fibre blown into the microducts only as needed. In this way, the decision to purchase fibre can be postponed until it's determined that buying fibre is actually needed. Blown fibre also eliminates the need for splicing and interconnection points.

Additionally, blown fibre products for indoor use connect buildings and campus infrastructure in a unique, environmentally friendly way. This solution involves blowing multiple individual fibres, where a special coating is applied in order to install in a small diameter microduct. This is a particularly sustainable solution since it uses less material than a standard blown

cable product, and so takes less energy to make. The protected microducts themselves are also low smoke and halogen free – all making the product uniquely environmentally friendly.

#### • Pre-terminated solutions

Leading companies ensure that pre-terminated cables are made to order, so that extra materials are not unnecessarily wasted in the process. While it can be tempting for manufacturers to purposefully supply orders with more material than what's needed in order to appease the customer, progressive organisations guarantee that all pre-terminated cabling solutions are built to fit, protecting the environment from waste.

### CIRCULAR ECONOMIES

Traditionally, the cabling economy – like most other industries – has been linear, where organisations use natural resources to make their products, and then those products are discarded once they've reached the end of their useful life. This format involves constant exploitation of natural resources and is unsustainable.

However, industry leaders are now looking to replace this model with a circular economy – one in which end of life products can be reused, remanufactured or recycled back into the supply chain. This is done by recovering copper, gold and other materials from unused buildings and end of life products. Buildings made in this way are called circular buildings, and offer enormous value to the environment, businesses and customers.

A massive amount of raw materials can be harvested from old buildings. Old data centres, offices, factories, hospitals and other commercial public buildings easily provide millions of tons of unused copper that often lie within formerly used cable pathways. A decommissioned data centre, for example, could generate 500kg of pure copper from one ton of harvested cables. And while cabling companies are increasingly using fibre in their products, copper is still in high demand.

### MATERIAL GAIN

According to a report published in *Metal Stocks in Society: Scientific Synthesis of the International Resource Panel of the*

**‘Old data centres, offices, factories, hospitals and other commercial public buildings easily provide millions of tons of unused copper that often lie within formerly used cable pathways.’**

United Nations Environment Programme, for every person on Earth, there is up to 55kg of copper and 80kg of aluminium above the ground. Additionally, there is 2,200kg of iron per capita.

The quantity of materials that can be acquired from old buildings is staggering already, but the low percentage of carbon emitted from recycled materials versus virgin materials adds more to the story. With conventional mining, it typically takes an entire ton of ore to produce just 1kg of pure virgin copper. That’s a ton of material that has to be extracted from the ground, processed and purified. The rest of it, 950-990kg of material, is mainly wasted. It’s hardly surprising then that recycled copper has a 40 per cent lower carbon factor than virgin materials.

### TOP QUALITY

At this point, one might question whether the quality of the products made out of recycled copper will be inferior. This is a fair question, but the reality is the complete opposite. Metals are easy to melt and reform, and zero quality is lost in the process – recycled copper can be easily upscaled, resulting in products of an even higher value.

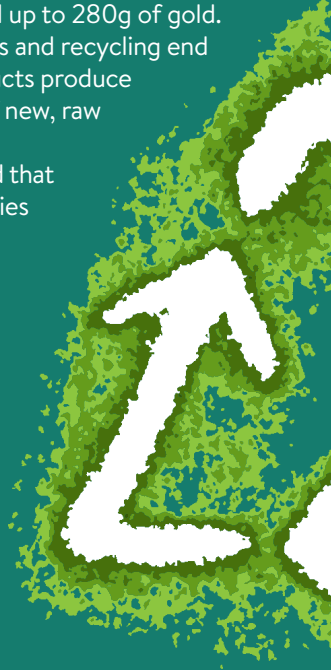
Recycling old products and moving towards circular manufacturing can also make an even a bigger difference than circular buildings. One tonne of printed circuit boards, for example, can generate up to 180g of gold, and various other precious materials. One tonne of old

cellphones can yield up to 280g of gold. Harvesting materials and recycling end of life cabling products produce massive amounts of new, raw materials.

It should be noted that while many companies see a circular economy as their future, not all of them are jumping on the bandwagon quite yet. But these organisations are nonetheless taking small steps forward, as well as forming collaborative partnerships with other organisations and entities, with the goal of fully integrating into a circular economy as time goes on.

### NOT JUST A DREAM

Leviton recently partnered with large energy, food production and health insurance companies on circular building initiatives. In collaboration with Leviton, these companies were able to remove old cable, work with a specialist company which extracted the metals and incinerated the plastic for energy, and then either buy cable for the new installation



made with copper recycled from the old cable or use the dollars earned to offset those new cable costs.

Around 92 per cent of the products retrieved – mainly consisting of power cables, cabinets, twisted pair copper cable and patch cords – were successfully recovered and returned to the material supply chain. The remaining eight percent was diverted to landfill. This additionally created a positive revenue stream, benefiting both the environment and these companies' bottom lines. This illustrates that recycling copper is profitable, and not only creates a commercial benefit for the building owner, but can provide recycled copper at a competitive price back into the manufacturing process. It's a win-win for everyone involved.

## AN EXCITING FUTURE

With the population of the planet currently over seven billion people and expected to reach nine billion by 2030, the strain on natural resources and need for cleaner energy continues to skyrocket. Progressive cabling organisations understand this and are making huge strides at identifying the root cause of environmental impact, implementing new strategies and turning the industry green. This is not only good for the environment, but it's also good for

business – it creates a more successful business model, higher quality products and ultimately offers more value to customers. ■



### KENNEDY MILLER

Kennedy Miller is technology and sustainability manager at Leviton Network Solutions Europe. He is responsible for leading materials research and testing, including laboratory strategies, fire science and Construction Products Regulation (CPR) initiatives. With more than 20 years of experience in the field, Miller is passionate about developing new environmentally conscientious cabling technologies.

## Excel Networking Solutions

Excel Networking Solutions is making significant changes to the packaging of its copper and fibre optic components, which is forecast to save over 40 tonnes (40,000kg) of single use plastic each year.

The changes mean that keystone jacks will no longer be supplied in individual single use plastic bags. Rather, they will be sold in packs of 24, presented in a 100 per cent recycled and recyclable natural cardboard box, which features no plastic at all. Similarly, individual patch leads are secured and labelled with a natural and recyclable paper based



wrapping.

For more information about Excel Networking Solutions [CLICK HERE](#). To contact the sales team call 0121 326 7557 or [CLICK](#)

[HERE](#) to send an email

For further details about the #plasticfree initiative and to discover alternative plastic free

packaging solutions, keep an eye on the [website](#) and [Excel's LinkedIn](#) page, where there will be regular updates about the company's environmental efforts.

[www.excel-networking.com](http://www.excel-networking.com)

## Leviton

Leviton's new Category 6A U/UTP cables in Euroclass Eca and Dca, LSHF/LSZH and CMR, have been added to the company's extensive selection of Category

6A cabling systems.

The cables are compatible with Atlas-X1 and eXtreme connectivity, providing complete end-to-end systems all from a single provider.

The new cable design maximises installation efficiency, enabling installers to terminate the cable with Leviton connectivity more than twice as quickly as leading competitive products that incorporate pair separators and foils in their UTP cable designs. It is also third party tested and certified for component, channel and permanent link compliance.

Leviton Dca Euroclass cable includes an s1a smoke rating, the best smoke emissions rating available. Internationally, the Dca cable is also UL Riser listed for those customers requiring CMR cable, while the Eca cable provides a cost competitive Leviton made LSHF/LSZH solution.

Leviton has specifically designed these cables for power over Ethernet applications (PoE), with excellent thermal dissipation characteristics, exceeding industry standards for PoE up to 100W.

The packaging is 100 per cent recyclable, and the 305m reels allow for greater shipping densities – further reducing shipping costs and carbon footprint.

To find out more [CLICK HERE](#). [www.leviton.com](http://www.leviton.com)

## HellermannTyton

At HellermannTyton we work hard to be a greener company. In addition to achieving ISO 14001 accreditation for environmental management, we continually assess our performance as a business and the impact we have on the environment.

Since we began seeking to reduce our environmental footprint, we have reduced our energy and solvent usage and have greatly increased our recycling activities – thereby reducing the amount of waste sent to landfill.

The HellermannTyton RapidNet solution carries its very own environmental credentials as a pre-terminated system. At the factory, each cable is pre-terminated and cut to its specified length, minimising



bulk cable waste. On-site, RapidNet is ready to be installed and can be supplied on re-usable plastic drums, resulting in minimal packaging waste.

HellermannTyton has been working closely with a number of core customers, taking the necessary steps to reduce and eliminate single use plastics in packaging where possible.

Our products are also manufactured in the UK and therefore we have shorter logistics paths resulting in a reduced carbon footprint and less environmental impact.

For more information [CLICK HERE](http://www.htdata.co.uk).  
[www.htdata.co.uk](http://www.htdata.co.uk)

## Stulz

Stulz has taken energy efficiency to the next level with the launch of the [CyberAir 3PRO DX](#) series. Offering exceptional energy efficiency ratios (EER) and airflow efficiency ratios (AER), this range of precision cooling units ensures maximum reliability, as well as achieving significant savings in energy and costs.

Providing the energy saving advantages of indirect free cooling, the Stulz GES hybrid systems are available with outputs in excess of 100kW. These new developments offer all output levels from 30kW-130kW and the provision of cooling systems with tandem compressors, potentially increasing further energy savings.



The key design benefits of the CyberAir 3PRO DX series include higher cooling capacities with a minimum footprint and lower refrigerant requirements. In addition, the units also boast the largest possible heat exchanger and filter surface areas for minimal pressure drops.

Flexibility is another significant advantage – the size, cooling capacity, air conduction and control system can be tailored to meet the precise requirements of mission critical facilities. As the supply air temperatures of the cooling systems lie within the recommended range of between 18°C and 27°C, they are fully ASHRAE compliant.

For further information [CLICK HERE](http://www.stulz.co.uk).  
[www.stulz.co.uk](http://www.stulz.co.uk)

# Taking the lead

## ► RS: Tell us a bit about yourself – who are you and what do you do?

EBH: I joined Equinix in 2013, as the senior vice president of sales for Europe, Middle East and Africa (EMEA). Over the subsequent six years we, as a team, tripled Equinix's revenue. This year, I was appointed president for the region, overseeing the management, strategy, and growth for Equinix in EMEA. Prior to joining Equinix, I worked at Syniverse, a technology and business services firm for the telecoms industry, as executive vice president and managing director for EMEA.

## RS: What attracted you to working in the data centre sector?

EBH: One of the most alluring aspects of the data centre industry is that we witness, and are often a part of, many of the silent revolutions occurring across the different industries throughout the world.

For example, in the insurance industry we have been directly privy to a shift towards big data and collaboration across firms, enabling the identification and prevention of mishaps or, more

Having worked at a senior level for a number of international organisations, Eugene Bergen Henegouwen knows what drives people and what makes teams excel. Rob Shepherd recently caught up with him to find out more about his life and career, and what he thinks are the big issues affecting the data centre sector

critically, catastrophes, before they occur. Similarly, we have a part to play in how the automotive industry is changing and how businesses are working with each other to enable connected cars. This industry is driving huge innovations as a result of collaboration – it's fascinating!

## RS: What excites you about it at present?

EBH: It's really exciting to work in an industry that is right at the cross section of so many others. Where does the internet live? In data centres! We connect the digital world and that's powerful. As such we are right at the centre of global innovation.

Equinix has been growing in a way I have never witnessed before and, to me, that is exciting. For example, under my predecessor, Eric Schwartz's leadership, we grew revenues to \$1.7bn and being a part of the drive to take the business to the next level, while staying firmly grounded, is a challenge I am looking forward to undertaking.

## RS: What impact will the implementation of 5G have on the way

'5G is likely to mean data centres of all kinds will become increasingly vital to the global economy – the hubs through which the world's most valuable information passes, and on which the digital economy itself is built.'

## that data centres are designed, specified and operated?

EBH: There is no question that 5G holds tremendous promise, delivering major advances in data transfer speeds, latency, connectivity, capacity, reliability and mobility. Indeed, 5G will provide users with access to much higher bandwidth levels, which people will quite quickly learn to consume.

But none of this will be effective without data centres in place to support this proliferation of data. An increased consumption of data will ultimately lead to increased interconnection bandwidth, as

people take advantage of higher download speeds and, therefore, require increased levels of interconnection to at times bypass the public internet for speed.

As the demand for interconnected ecosystems increases, the data centre market will also attract new and different partners into its systems. For example, mobile and connected

devices companies, integral to the infrastructure involved in the rollout of 5G, will be connected with new and different companies than previously required – perhaps a healthcare provider to support

**‘There is still a long way to go in our industry when it comes to tackling sustainability issues, but many projects are underway to drive an accelerated improvement.’**



**‘It’s really exciting to work in an industry that is right at the cross section of so many others. Where does the internet live? In data centres! We connect the digital world and that’s powerful.’**

medtech, or an automotive manufacturer to enable connected cars.

5G is likely to mean data centres of all kinds will become increasingly vital to the global economy – the hubs through which the world’s most valuable information passes, and on which the digital economy itself is built.

Data will need to be hosted and streamed in larger volumes, and at significantly higher speeds and lower latencies, with data centres ensuring this low latency and an abundance of bandwidth to manage the high volume of 5G data.

**RS: What opportunities is the Open Compute Project (OCP) offering in terms of how data centres are designed and configured?**

EBH: OCP offers a proven model for innovation and has the potential to move an entire industry toward the next wave of software and hardware capabilities.

Being a member of the OCP community aligns us with some of our leading customers as they push boundaries and develop next generation interconnection solutions. It also enables us to tap into the industry’s formidable resources and brain power, and share our own data centre and interconnection expertise, as we commit to a future where constant innovation is both possible and necessary, and where we can continue to bring people together to find new ways to connect and grow.

**RS: Has the introduction of the General Data Protection Regulation (GDPR) been positive?**

EBH: It has been over a year since GDPR went into effect. Overall, it has been positive, with Europe taking the lead on protecting the information associated with consumers. Indeed, other countries, such as the United States, are looking at it as an example of best practice. At the national level, regulatory bodies in Washington DC. have divided responsibility to probe the activities of the largest tech firms. And this could just be the tip of the digital iceberg, with debates on online privacy protection to remain high on the policy agenda on both sides of the Atlantic.

However, the regulation is not without its critics, and the requirements have not been met by all. In the year that GDPR has taken effect, several leading companies have come under scrutiny from both European Union (EU) and member states’ regulators for possible violations of this sweeping data privacy regulation, with fines amounting to €56m in the first



year. With this in mind, further scrutiny is likely, with Europe's recommended implementation of the EU's ePrivacy Regulation in the coming months.

**RS: Is the data centre sector doing enough to reduce its environmental impact?**

EBH: There is still a long way to go in our industry when it comes to tackling sustainability issues, but many projects

are underway to drive an accelerated improvement. Equinix, for example, has appointed a worldwide leader in our team to drive environmental improvement. This is because the topic of sustainability has high visibility in our company, and we are actively building a partner network to move the needle on environmental impact. It is

widely recognised that continuing to build robust facilities that look to tackle the challenges of today, whilst also preparing for the future, is critical to the long-term success of the data centre industry and needs to remain our focus in the months and years to come.

Since the early 2000s, energy efficiency has underpinned our entire design process. In every data centre we implement energy efficient components and utilise

construction materials that complement our long-term sustainability goal of using 100 per cent clean and renewable energy for our global platform – a commitment referred to by Greenpeace as 'a giant step forward for building a renewably powered internet'. Applying these sustainability methods from the ground up when designing and building new data centres has had a massive impact in reducing our carbon footprint in the last 20 years.

It should be noted here that converting existing buildings with sustainability in mind is far more challenging than building one from scratch. But we are committed to making the change. Since 2011, Equinix has invested over \$86m in energy efficiency upgrades, retrofits, and improvements across its portfolio of data centres.

**RS: If you could change one thing about the industry that you work in, what would it be?**

EBH: With the vast change and growth of our industry, an increasing number of top talent will be required. This, ultimately, is driving innovation and growth. So I would like to be able to attract even more top talent to the digital transformation process. This will, in turn, help to accelerate the change and bring digital benefits to the world even faster.

**RS: What's the most useful piece of advice you've been given and how has it helped you during your career?**

EBH: A while ago, I had the privilege of working with Paul Allen who was the co-founder of Microsoft. Paul asked me what the biggest mistake in my life had been, and what I had learned from it, adding, 'if (I) didn't learn anything, then (I) didn't do anything worth it in the first place'. I thought it was a very insightful comment, and I've used that question when hiring ever since! ■



## Siemon designs future proof cabling infrastructure for Sasol's head office

Siemon's technology has been installed throughout Sasol's new 11-storey, 70,000m<sup>2</sup> head office complex – Sasol Place – in Sandton, South Africa.

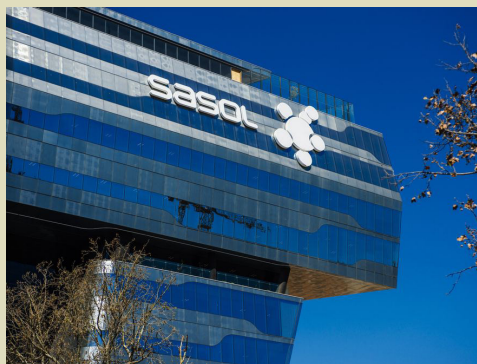
Complementing its state-of-the-art design, Siemon's structured cabling provides a 10 Gigabit Ethernet ready solution that future proofs Sasol Place and has helped to create an intelligent building described by Business Insider as one of the 'most awe-inspiring new office buildings in South Africa'.

Home to a 3,500 strong workforce, Sasol Place is an S-shaped glass structure that boasts a specially designed glass façade, as well as balconies and bridges that link various areas within the complex. To encourage collaboration and efficient

working practices, open and transparent workspaces have been created, while employees also benefit from a wellness

centre and gym. Approximately 240,000m of Siemon's Category 7A shielded cable and 3,750 Category 6A Z-MAX connections were installed across 10 floors. This solution supports all typical data and voice applications and will be able to

handle higher bandwidth next generation technology. With a range of building services able to converge on the network, saturated wireless, audiovisual (AV) and telepresence technologies will benefit from the new cabling infrastructure, which also facilitates power over Ethernet (PoE) enabled devices including phones, wireless access points and security.



## Pinacl Solutions scores public sector success

Pinacl Solutions has been named as a supplier on the Crown Commercial Service's RM3808 Network Services 2 framework. It covers the provision of telecommunications and network services and can be used by the whole of the UK public sector and any associated bodies and agencies. It also includes the voluntary sector, charities, and other private organisations procuring on behalf of the public sector.

Pinacl has gained places covering data access services, local connectivity services and video conferencing services.

Working again with the Crown Commercial Service on this new framework offers the opportunity for Pinacl Solutions to continue working closely with customers and provides access to new and exciting opportunities.

As a leading systems integrator, Pinacl has worked extensively within the public sector, delivering innovation for over 30 years. Its success on the previous Network Services 1 framework gives the company unique experience and technical expertise to continue delivering innovative solutions to the public sector.

# Leviton supplies cabling for new Type 26 frigates

Leviton has secured a supply contract with BAE Systems to provide cabling for Batch 1 Type 26 frigates. The Brand-Rex High Performance Cables will support a variety of communication, power, and mission critical systems onboard the vessels.



Leviton has already delivered approximately 490km of cable for the first order from BAE Systems for the Type 26 frigates.

The Type 26 frigate will replace existing Type 23 frigates as a versatile multi-mission warship designed to support anti-submarine warfare, air defence, humanitarian aid and disaster relief work. At 150m long, the frigates accommodate up

to 208 crew members and employ modular design and open systems architecture to handle technology upgrades in the future.

Leviton is an approved supplier of copper and fibre optic cables for military and maritime applications, offering custom cables and hybrid constructions with high performance insulating and outer materials optimised for military systems and infrastructure.

## PROJECTS & CONTRACTS IN BRIEF

Stowe Valley Multi-Academy Trust will be the first organisation of its kind in the UK to implement TalkTalk Business' multiprotocol label switching (MPLS) network across all eight of its sites to reduce costs and improve efficiency.

Leaseweb has selected the maincubes AMS01 data centre as a strategic location for further expanding its Amsterdam presence.

ANSecurity has delivered a project with New College Oxford to streamline its network architecture and strengthen its security by moving to a Zero Trust model.

As the Official Wi-Fi Solutions Provider to the NFL, Extreme Networks will provide Wi-Fi and Wi-Fi analytics solutions for the next three football seasons and two Super Bowls. Extreme Networks currently provides Wi-Fi or Wi-Fi analytics solutions to 24 stadiums, servicing 25 teams in the NFL.

Kao Data has signed a new customer contract with EMBL-EBI.

## Draka/Prysmian

Prysmian's new Draka UC400 23 Category 6 U/UTP LSHF D65 B2ca data cable is fully compliant with the Construction Products Regulation (CPR). The new UK manufactured cable has a Euroclass B2ca s1a d1 a1 fire performance rating for full CPR compliance without compromising data transmission levels, and delivers full Category 6/Class E compliant electrical performance.

Prysmian has invested considerable resources in developing the new cable, with success achieved through a range of material engineering developments, optimisation of the cable construction design and fine tuning of the manufacturing processes. At the same time, the new cable remains compact, with a high degree of flexibility for easy installation.



The Draka UC400 23 Category 6 U/UTP LSHF D65 B2ca data cable has been introduced following the recently launched D64 Cca rated version, which is CPR compliant even when deployed from a 305m Reelex box. While working on the new Category 6 U/UTP cable design, Prysmian discovered that cable which

runs off the production line straight onto a reel retains its 'as manufactured' structure and integrity, but the treatment of the cable to load it into a box

without a reel can have a negative impact on the Euroclass classification. As a result, the new D65 product is only available in reel format.

For information [CLICK HERE](https://uk.prysmiangroup.com).  
[uk.prysmiangroup.com](https://uk.prysmiangroup.com)

## Excel Networking Solutions

Excel's comprehensive range of [Environ](#) racks, cabinets and open frames offers exceptional quality. They are suitable for a wide range of applications in the enterprise, data centre and security markets, as well as for everyday cabling systems.

To complement the Environ range, Excel offers the [Environ Locking Solution](#) to provide an ergonomic and stylish solution for environments where security is paramount. Bringing intelligence and monitoring right down to the lock level of a rack, the Environ Locking Solution



provides ultimate access control.

The full range, which is available for free next day UK delivery, can be viewed in the dedicated Environ [digital catalogue](#).

Excel's [Specialist Support Services](#) include [pre-configured cabinets](#) and [on-site rack assembly](#) to offer customers a flexible service which is proven to reduce installation cost and time whilst providing a fully tested, fully traceable,

100 per cent inspected product.

[CLICK HERE](#) for further details.  
[www.excel-networking.com](https://www.excel-networking.com)

## Leviton

The new Leviton Cat 6 Flat Unshielded 110-Style Panels are



designed for use in high Mb applications such as Gigabit Ethernet, and include numerous features to improve installation and performance.

Retention Force Technology (RFT) in each port protects against tine damage and increases system longevity. The included Cable Management Clip secures cables quickly – 40 per cent faster than traditional methods – without the need for user

supplied ties or wraps.

The jumper, which is also included, uses spade terminal for faster earthing time. Additionally, panels are tested to support 100W power over Ethernet (PoE). They are available in 1RU 24-port (69586-B24) and 2RU 48-port (69586-B48) options.

[CLICK HERE](#) to learn more.  
[www.leviton.com](http://www.leviton.com)

## Comtec

Network cabling has become the central nervous system of the smart building – a single infrastructure providing voice, data, security, audiovisual, automation and now, intelligent lighting.

Comtec introduces the latest centralised drive LED lighting technology from IST. The intelligent way to illuminate your smart building.

LED lights have been available for many years but intelligent LED lighting incorporates several new technologies. It utilises low voltage DC distributed across a standard Category6/6A structured cabling system, removing the need for 230VAC in the ceiling.

Fast and easy to install with plug and



play RJ-45 connectivity means there is no need for qualified electrical technicians. Centralised drivers significantly reduce operational expenditure and maintenance costs by up to 82 per cent compared to 230VAC

installations, whilst an integrated control system provides the information to drive efficiency improvement and can reduce energy consumption by up to 85 per cent.

[CLICK HERE](#) to learn more or call 01480 415000.

[www.comtecdirect.co.uk](http://www.comtecdirect.co.uk)

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# And now for something completely different...

Neil Ferguson of Opsview explains why successful digital transformation is an aspiration few will achieve without going back to basics

▶ It's very easy to get caught up in the hype of digital transformation and the benefits of technologies such as artificial intelligence (AI) and the internet of things (IoT) – and why not? For many, it promises to improve productivity, efficiency and drive better digital practices throughout businesses. They are all certainly hot topics, and whilst AI and IoT are still a few years off in terms of effective integration, digital transformation, on the other hand, has moved over the past few years from a 'nice to have' to an essential driver of strategic business growth and productivity.

## MONEY MATTERS

According to IDC, global spending on digital experiences (DX) will reach a staggering \$1.7tn globally by the end of 2019, showing the clear demand for digital frameworks that support business goals. However, achieving this outcome for some businesses is easier said than done.

According to IDC, firms aren't always getting the results they want. Over half (59 per cent) of organisations questioned for the report were described as being stuck in the early stages of DX maturity, or what IDC calls a 'digital impasse'. In many

cases, this may well come down to their inability to manage the IT infrastructure effectively.

The problem for many firms is that the technology they want to implement this great change and innovation is not compatible with their current IT infrastructure, which means they won't achieve the desired end goal. Whilst big data, IoT, machine learning and data analytics sound incredible and will no doubt have a huge part to play in achieving digital transformation now and in the future, what underpins this function – centralised IT monitoring – might be a blocker before the project gets off the ground.

## SUPPORT STRUCTURE

This is because to support all this innovation, the foundations of any IT infrastructure needs to be fast, resilient and capable of supporting new, digital workstreams, which were not present before. For many, this is the issue – legacy systems make up the bulk of their digital infrastructure. If the bonnet were lifted, you'd see a mess of disparate, decentralised systems that neither

‘Only by monitoring all aspects of applications and systems from a single pane of glass will businesses have the full picture of system health, availability and capacity at all times in near real time.’

integrate nor communicate with each other.

This not only makes it harder to understand operational health but encourages system failure. What’s more, it makes it hard for IT to catch and fix issues before they cause downtime, which impacts performance and the balance sheet. Poor operational performance triggered by system bottlenecks frustrate users and harm their productivity, but without effective monitoring, which can provide this much needed data, it is impossible to know how much time is being lost.

## REAL LIFE

But what needs to change to help the aspiration become a reality? If firms want to implement successful digital transformation projects, they need to get a holistic view of the system, that is, what is functioning and how well.

This needs to be visible across all parts of the system, and in the process destroy historic data islands by bringing everything together into one, single operation. However, as many firms have tried to unite disparate technologies, they have made this utopia impossible due to the sheer volume of monitoring tools used to keep everything in check. In fact, research from Enterprise Management Associates revealed that a vast number

of organisations have 10 or more monitoring tools, meaning it takes businesses between three and six hours to pinpoint the source of an IT performance

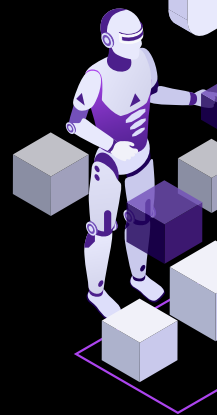
issue, which is clearly unsustainable.

Only by monitoring all aspects of applications and systems from a single pane of glass will businesses have the full picture of system health, availability and capacity at all times in near real time. This will then enable business value from digital transformation operations.

## THINKING AHEAD

It’s also vital for firms to stop putting plasters over bullet holes with regard to IT systems. For example, it’s common for some businesses to make one or two tool selections before a project kicks off, with others then added in along the way – selecting a range of vendors that deliver best practice solutions for each individual piece of the project.

This should not be the





case – all selections should be made upfront, thereby establishing a coherent and unified network view that works as one. By not doing this, firms are causing an integration problem, as the network is made up of decentralised products that don't work intuitively together – there's no one solution.

This siloed approach not only means businesses are buying more solutions to try and fix the initial problem, which should not have been triggered in the first place, but it fails to enable the one, clear, holistic view I mentioned earlier. It segments findings into pockets, taking time and effort to analyse and bring into the wider operational landscape. This approach may have given the false impression of saving time, but will cost the business later on down the line when a big consolidation programme is then necessary.

### FOOD FOR THOUGHT

For many companies, IT management has previously been an afterthought – a necessity but one of little strategic worth. Now, thanks to the value seen in digital transformation and operational efficiency, IT is getting the seat at the top table it deserves and can finally start to integrate itself more coherently with other departments. However, to do this effectively, IT must go back to basics and make life easy for itself, by having a clear view of operational health. From a digital transformation perspective, visibility and control means organisations can have the confidence to invest in projects and not fear the outcome, as they're giving themselves every chance of success. That lights the way to innovation, growth and success – all made possible by

strategic use of IT monitoring and operations management from a single pane of glass. ■



### NEIL FERGUSON

Neil Ferguson is director of customer success at Opsview. His background is in infrastructure consultancy and he joined Opsview in its early years as the third employee, and has worked in several technical roles through the significant growth that the company has seen since that time. In his current role he has responsibility for the worldwide technical presales, support, training and professional services operations.

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