Inside_Networks

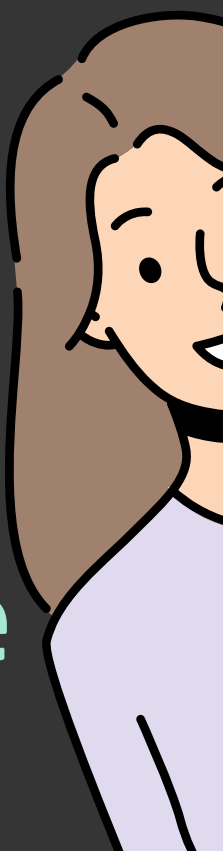
THE NETWORK INFRASTRUCTURE E-M

People pow

RETHINKING HOW WE DEVE

Clever by design

SPECIFYING CABLING FOR AN INTELLIGENT BUILDING



Size and scale

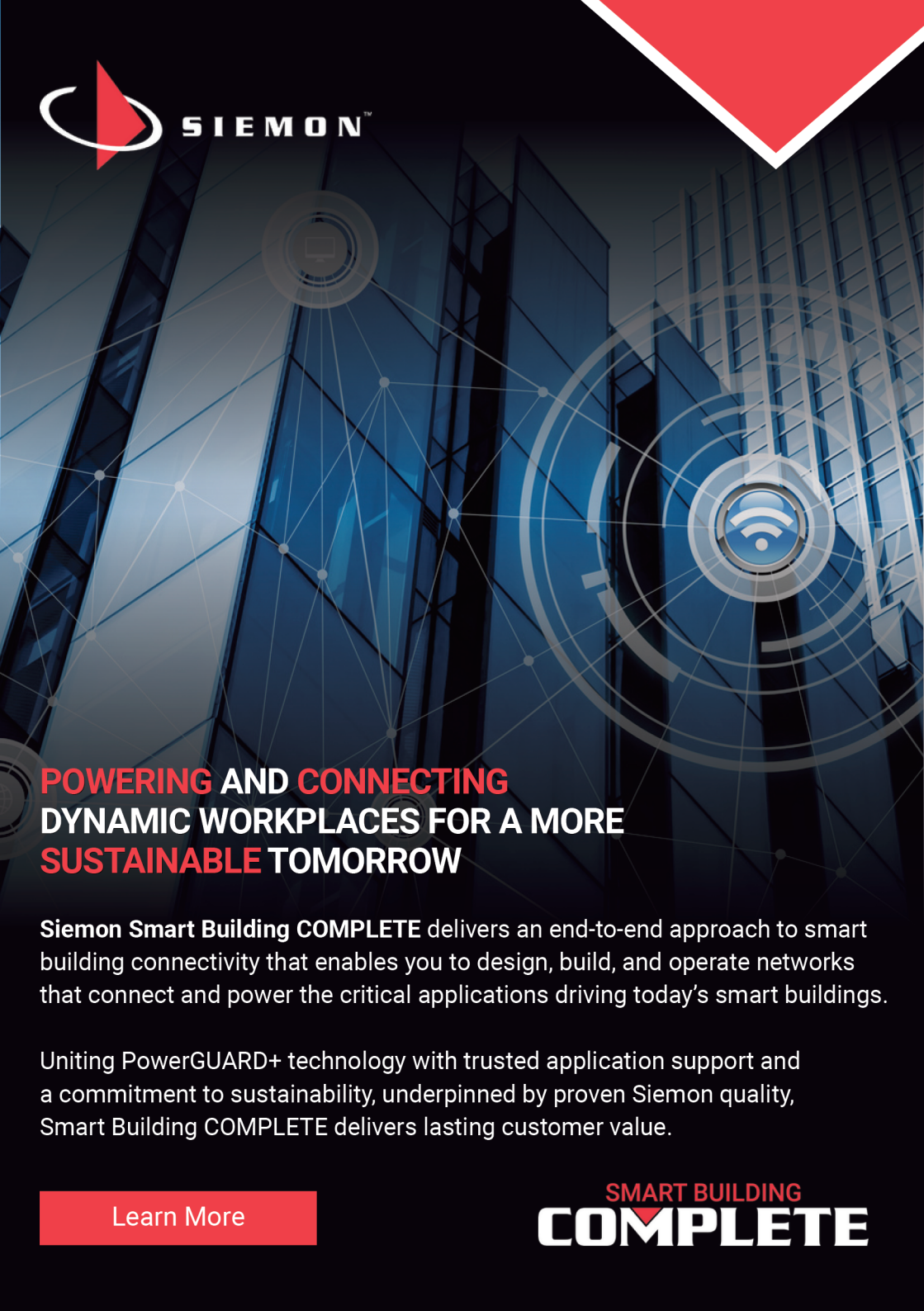
WHY SMALLER DIAMETER OPTICAL FIBRE MATTERS

AGAZINE WWW.INSIDENETWORKS.CO.UK

MAR
26

wered progress

LOP TALENT FOR THE DATA CENTRE INDUSTRY


SIEMON™
POWERING AND CONNECTING
DYNAMIC WORKPLACES FOR A MORE
SUSTAINABLE TOMORROW
Siemon Smart Building COMPLETE delivers an end-to-end approach to smart building connectivity that enables you to design, build, and operate networks that connect and power the critical applications driving today's smart buildings.
Uniting PowerGUARD+ technology with trusted application support and a commitment to sustainability, underpinned by proven Siemon quality, Smart Building COMPLETE delivers lasting customer value.
Learn More
SMART BUILDING
COMPLETE

Building Smarter, Stronger Networks

Enterprise Structured Cabling Solutions

For over 40 years, Molex has helped organizations rethink structured cabling as a strategic asset, not a commodity.

With proven global expertise and end-to-end support, Molex turns infrastructure into advantage, backed by a 25-year System Performance and Application Assurance Warranty.

Design for what's next
Infrastructure built to handle tomorrow's bandwidth and power demands

Global reach
Technical experts and certified installers in 50 + countries

Tailored collaboration
Custom solutions engineered around your environment and objectives

molex

creating connections for life

Working smarter

EDITOR
Rob Shepherd
07708 972170

SUB-EDITOR
Chris Marsland

ADVERTISING MANAGER
Kate Paxton
01603 610265

CREATIVE DIRECTOR
Vishnu Joory

TECHNOLOGY CONSULTANT
James Abrahams

CIRCULATION MANAGER
Debbie King

ACCOUNTS
Billy Gallop

Today's intelligent buildings rely on smart technologies, real time data and seamless connectivity to operate efficiently and sustainably. As a result, network infrastructure is the backbone of modern design, with a wide range of building services relying on high performance connectivity to function as an integrated whole.

To minimise downtime, maximise reliability and ensure long-term adaptability, a cabling system must be resilient, scalable and standards compliant. As choosing the right configuration today is critical to protecting performance, reducing risk and future proofing for years to come, in this month's Question Time we've asked a specially selected panel of industry experts to examine the key factors involved in specifying cabling for intelligent buildings.

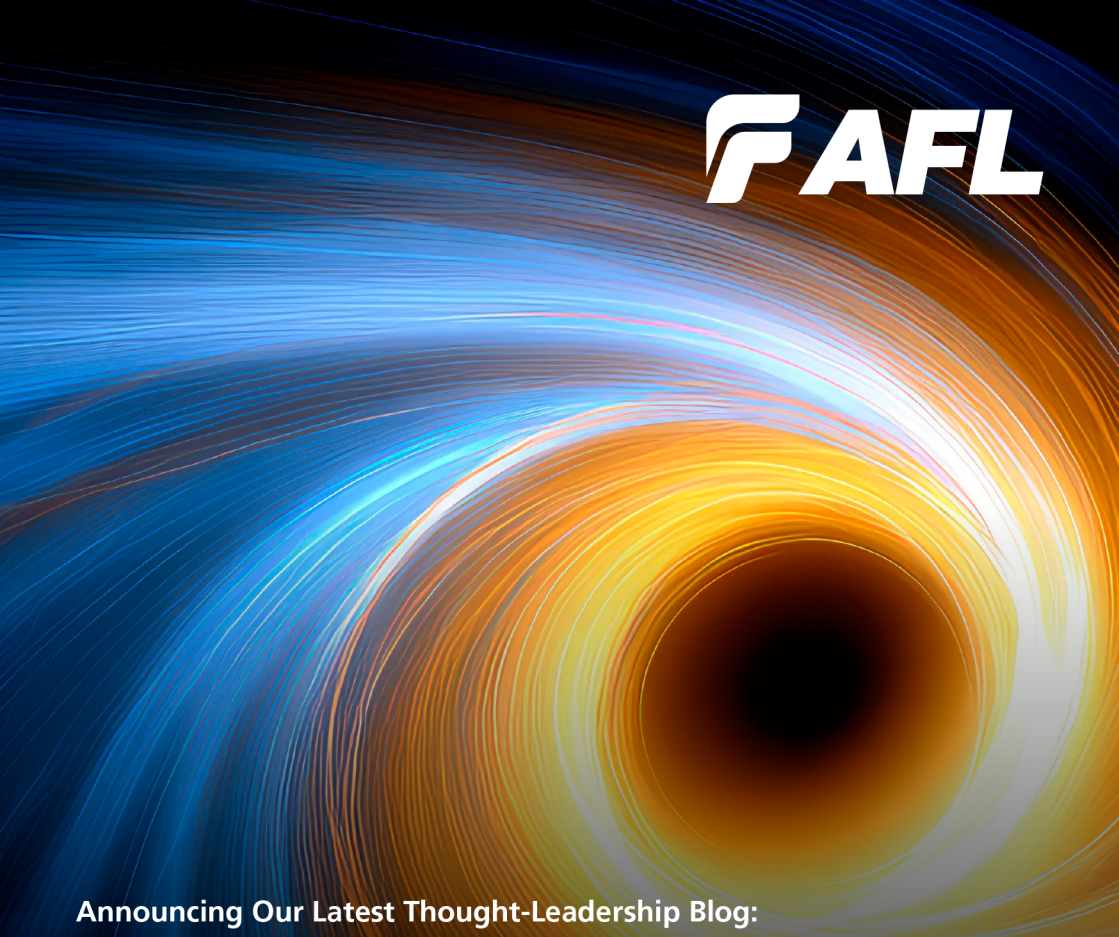
We also take an in depth look at training and skills development, with two excellent articles on this subject. First up, Kalay Moodley of Kao Data argues that the UK's ambition to become a global AI superpower will not be achieved through infrastructure and investment alone but will require a fundamental rethink of how talent for the data centre industry is developed. Kalay's followed by our old friend Andrew Stevens of Traverse, who explains why human judgement, especially under pressure, remains critical in today's digital infrastructure.

This issue also contains a special feature on fibre optic cabling standards. Ian Griffiths of Prysmian looks at why smaller diameter optical fibre matters and what it takes to get there, while Sitaramaiah Alamuri of STL - Sterlite Technologies examines TIA TSB-6000 and explains why it is so important for data centre design. They are joined by Lars Züllig of R&M, who explains why freedom of choice is so important when it comes to specifying singlemode optical fibre in building networks.

While traditional metrics such as PUE and annual renewable energy matching have long been used to demonstrate efficiency and sustainability, rising scrutiny and surging AI-driven energy demand are exposing their limitations. Francesco Marasco of nLighten highlights the growing need for hourly carbon measurement in the data centre industry.

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



Announcing Our Latest Thought-Leadership Blog:

Polarity in High-Density Data Center Networks: Understanding the Growing Challenges in High-Density Fiber Environments

Unprecedented AI-driven workloads are driving massive cloud adoption across globally distributed hyperscale data centers. The combination of rising interconnect density and increasingly advanced optical modules pushes polarity to the forefront of data center design.

This paper introduces polarity in clear, data-center-focused terms and explains why legacy practices struggle in high-density, multi-vendor networks.

Read the blog now:
Polarity in High-Density Data Center Networks

HellermannTyton

GigaDuct
Fibre Raceway

RAPIDNET®
ULTRA

Next-gen Solutions for the Data Centre

Join us at Data Centre World 2026 to see RAPIDNET® ULTRA and GigaDuct in action.

Stand F55, 4-5 March, Excel London

MADE TO CONNECT

OECD and Cisco research finds stark geographical and generational divides in AI uptake and digital wellbeing

Cisco has partnered with the Organisation for Economic Cooperation and Development (OECD) on the Digital Well-being Hub to study the relationship between technology's risks and benefits, and how AI is impacting people's lives. Beneath the headlines of youthful enthusiasm for AI, geographic and generational divides are emerging, shaping who benefits from AI, who bears the risks and how digital life can affect wellbeing.


Guy Diedrich

According to current research, young adults across the world are voracious consumers of digital content, with under-35s showing the highest use of social media, online devices and active use of GenAI. But the real standouts are people in emerging economies, particularly India, Brazil, Mexico and South Africa. They lead AI adoption globally with the highest usage rates, greatest trust levels and most active engagement in AI training. In contrast, those surveyed in European countries show less trust and more uncertainty.

People in India, Brazil, Mexico and South Africa also report the highest recreational screen time, greatest reliance on digital only socialising, and the most pronounced emotional highs and lows from tech use when compared to those in other countries. The research shows that more than five hours of daily recreational screen time is associated with decreased wellbeing and lower life satisfaction.

'Empowering emerging economies with AI skills is not just about technology, it's about unlocking the potential of every individual to shape their future,' said Guy Diedrich, senior vice president and global innovation officer at Cisco. 'With the rapid integration of AI into our daily lives and workplaces, we must ensure that these tools are designed responsibly, with transparency, fairness and privacy at their core. AI's greatest potential can be realised if it enhances wellbeing by streamlining tasks, improving collaboration, and creating opportunities for growth and learning.'

Generational splits are equally stark, tracking existing trends in digitalisation. Younger adults worldwide report that most or all of their social interaction takes place online and they express higher confidence in AI's usefulness. More than 50 per cent of under-35s surveyed actively use AI, more than 75 per cent say it is useful and almost half of 26-35 year olds surveyed have completed some training.

In contrast, adults over 45 are less likely to view AI as useful and more than half do not use it at all. Among over-55s, many say they 'don't know' if they trust AI, suggesting their uncertainty may be driven by a lack of familiarity rather than outright rejection. This familiarity gap also mirrors differences in expectations for AI's impact on jobs, with under-35s and those in emerging economies anticipating the highest impact.

Diedrich concluded, 'Generational divides in digital and AI adoption are not inevitable, they are challenges we can all address through targeted action. A key measure of AI's success should not be speed of adoption, but whether people across all ages, skill levels and geographies can use AI to genuinely improve their lives.'

Utilities professionals avoid leading change in case it doesn't succeed

Experts in the utilities sector say senior managers are avoiding leading major change within their company, fearing it will derail their career. In fact, according to new research by Capability for Change, 21 per cent say senior managers feel it is safer leaving projects, such as rolling out AI in the business or restructuring, to someone else than risk being tainted by association if anything goes wrong.


Melanie Franklin

According to The Capability for Change Report 2025, 44 per cent of projects involving major change in the utilities industry don't succeed, with a quarter saying their company's most recent project was a failure. Furthermore, just 19 per cent of managers are given specialist training to help them lead or manage change, meaning they're ill equipped to cope.

Melanie Franklin, CEO of Capability for Change, commented, 'With so many change initiatives failing, and so little support on offer, it is easy to see why senior utilities managers may be reluctant to put their professional reputations on the line. The risk is deemed far too high for something that could seriously jeopardise their careers.'

AI's hidden costs are becoming a systemic risk for business

Arthur D Little's Blue Shift institute has published findings, involving more than 50 experts, that explore AI's resource dependencies and the consequent direct systemic vulnerabilities for businesses.

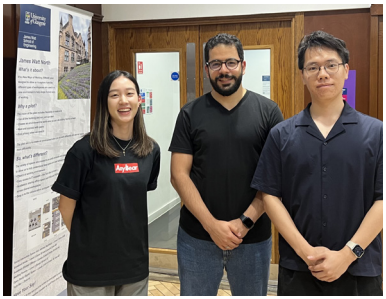
It identifies three main areas of dependency. These are environmental impacts including emissions due to AI's heavy energy usage and the manufacture of related hardware, energy supply, and compute infrastructure including supply chain choke points and dependencies on dominant providers. It anticipates that these dependencies will increasingly expose businesses to economic instability as the real costs of AI become apparent.


Albert Meige

Albert Meige, global director of Arthur D Little's Blue Shift institute, commented, 'AI feels cheap today because its real economic and environmental costs are essentially hidden. Once dependence sets in, those costs will surface. And companies should be strategically prepared.'

Digital twin tech could help slash 'phantom load' waste

Adopting digital twin technology to manage the power consumption of idle devices could save organisations thousands of pounds a year and help reduce their carbon footprint. Engineers from the University of Glasgow's James Watt School of Engineering have developed a prototype of a digital tool which can monitor and manage 'phantom load' – the electricity consumed by devices like computers or office equipment when they are plugged into mains power but are not in active use.



L-R Yuwen Wang, Ahmad Taha and Zhihong Xu

Previous research has shown that up to a third of the electricity used in office buildings can be accounted for by phantom power. The research team set out to use their expertise to develop a more intelligent, behaviour adaptive approach to managing the phantom load.

Ahmad Taha of the University of Glasgow's James Watt School of Engineering is leading the work with his team – Yuwen Wang, Zhihong Xu and Shilong Yan. He said, 'The edge enabled digital twin system we've developed is designed to help organisations reduce their power waste in two different ways. Firstly, it can help identify power management efficiencies in real time, cutting power consumption and reducing carbon emissions. Secondly, by reducing devices' use of electricity, it could help reduce the need to replace older devices with newer, more power efficient ones.'

Vantage Data Centers joins OCP Foundation Advisory Board

Vantage Data Centers has been appointed to the Open Compute Project (OCP) Foundation Advisory Board. Vantage will join hyperscale enterprise infrastructure leaders to support common standards for AI infrastructure and efficiency through cross-ecosystem collaboration. It will represent the perspective of the global data centre operator, bringing real world facility experience into OCP's comprehensive work.

Robin Balen, chief product officer at Vantage Data Centers, will represent the company on the OCP Foundation Advisory Board, bringing practical experience in designing and operating large scale AI and cloud campuses globally. Balen said, 'By supporting open, efficient AI infrastructure and bringing actual facility experience into OCP's work on power, cooling and grid integrated data centres, we can help ensure that emerging standards are not only innovative, but deployable at scale in a way that is also highly efficient and sustainable.'

Global digital entrepreneurship ecosystem index reveals gap between digital readiness and scaling capacity

The Vienna Institute for Global Studies (VIGS) has looked at how digitalisation translates into entrepreneurial and economic outcomes across 170 economies. While digital infrastructure, connectivity and basic digital skills have expanded rapidly worldwide, the ability of countries to convert these foundations into scalable entrepreneurial activity remains uneven, creating a widening gap between digital readiness and economic impact.


Zoltán Ács

Although global digital capabilities have improved markedly, start-up scaling, access to venture finance and innovation commercialisation continue to lag. High income economies lead the global rankings, benefiting from balanced ecosystems that combine strong institutions, deep capital markets and mature digital platforms. Several emerging regions, including Sub-Saharan Africa and Central Asia, recorded the fastest relative growth, driven by foundational investments in connectivity and digital skills.

'We are at a turning point in the global digital economy,' said Zoltán Ács, director VIGS. 'Digital access is no longer the main constraint. The real challenge is enabling entrepreneurship – particularly scaling, finance and institutional coordination – so digital readiness can be transformed into economic value.'

NEWS IN BRIEF

The Police Digital Service (PDS) has launched a partnership with BCS, The Chartered Institute for IT, to raise the standard of digital and data skills across police forces. PDS has allocated 470 BCS membership places to forces nationwide to help standardise technical roles.

BCS Consultancy has announced that Chris Coward is its new chief operating officer. This transition represents a development in the company's strategic leadership and long-term growth objectives.

Rackspace Technology's UK Sovereign Services has achieved the VMware Sovereign Cloud certification, reinforcing its ability to store, process and protect UK organisations' most sensitive data.

Kao Data has promoted Fraser Clarke to vice president of operations, where he will oversee data centre operations, customer implementation, contracts and procurement in life projects and service management. His appointment comes as Kao Data prepares for a landmark 2026, with KLON-03 in Harlow coming online.

Vantage Data Centers has raised an additional £254mn in securitised term notes. £200mn was raised through a tap of the existing Class A-2 Notes while £54mn was raised from the new Class B Tranche.

STL

stl.tech

Scan QR Code to know more

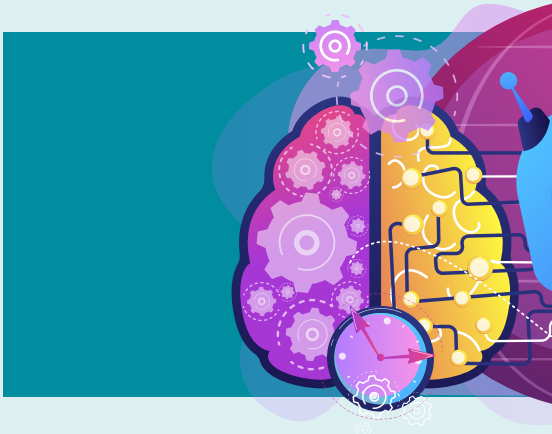
Looking for

High Fiber Count Rollable Ribbon for Data Center Interconnect?

- 12-288F
- 432F
- 864F
- 1728F
- 3456F
- 6912F

AI Growth Zones are rede infrastructure and talent

Hi Rob



The government plans to inject investment across north eastern England to cement its position as a hub for AI development. The North East AI Growth Zone has generated waves of excitement, as it's set to have cascading impacts across the country.

The AI boom has triggered an overwhelming need for robust and scalable data centre infrastructure to meet rising demand. However, this race to rapid deployment raises operational, financial and sustainability risks. Yes, we need more data centres to power these AI Growth Zones, but the speed at which these need to be built is putting enormous pressure on the industry. Data centres are critical infrastructure, which means rushing the design and build could do more harm than good.

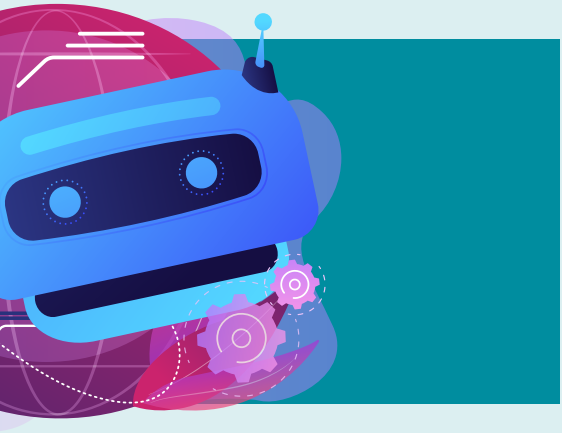
One way to ease this pressure is through early coordination, bringing operators, local authorities and suppliers together from the outset to streamline planning and delivery. Smarter design ideas, such as modular builds and modern cooling technologies, can also help speed things up without compromising quality or safety.

The International Energy Agency's Energy and AI report projects that electricity demand from data centres worldwide is set to more than double by 2030 to around 945TWh – slightly more than the current total electricity consumption in Japan. As AI applications expand, the carbon footprint of the systems powering them will also increase. For AI Growth Zones to succeed, they must be founded on robust sustainability measures, or the UK risks clashing with its climate goals and undermining its credibility as a leader in sustainable innovation.

More options are available now including modular construction, advanced cooling technologies and renewable energy sources. The industry is making huge strides in these areas, with some hyperscalers already pushing commissioning teams to validate new liquid cooling designs. Working closely with specialist partners and experienced delivery teams can help balance speed with sustainability, safety and long-term reliability, ensuring progress doesn't come at the expense of performance.

While much attention is on the infrastructure, there's another critical piece of the puzzle – people. Yes, we need sufficient power, land and investment, but how confident are we that there are enough skilled people to deliver and

fining data centre



operate the infrastructure that AI depends on? AI data centres require both robust infrastructure and a workforce capable of standing the test of time to make the government's ambitions a reality.

If AI Growth Zones are to succeed, investment in infrastructure must go hand in hand with investment in people. We need to put as much energy into upskilling and training people on the ground as we do into the data centres themselves. The industry has long faced a shortage of skilled operators and providers have struggled to ramp commissioning agents fast enough, with training cycles that normally take months being compressed.

We're calling for greater collaboration between operators, universities and local governments to build a solid foundation of courses, apprenticeships and entry level roles that help enrol people directly into data centre operations and engineering positions. There's also real value in learning from proven training models, such as those that draw on the discipline and continuous learning mindset found in the military.

Salute's own experience in helping veterans transition into technical careers shows how these skills can translate directly into the precision, accountability and resilience needed to operate mission critical environments. Nurturing talent from the ground-up will ensure that these critical AI data centres are in the hands of people who understand the infrastructure inside out, boosting their long-term resilience.

AI Growth Zones are more than just the technology they run on. They are ecosystems of talent and opportunity that can sustain these facilities for decades. By developing people alongside infrastructure, the UK can ensure that AI growth is not only fast but also responsible, resilient and built to last.

Jon Healy
Salute

Editor's comment

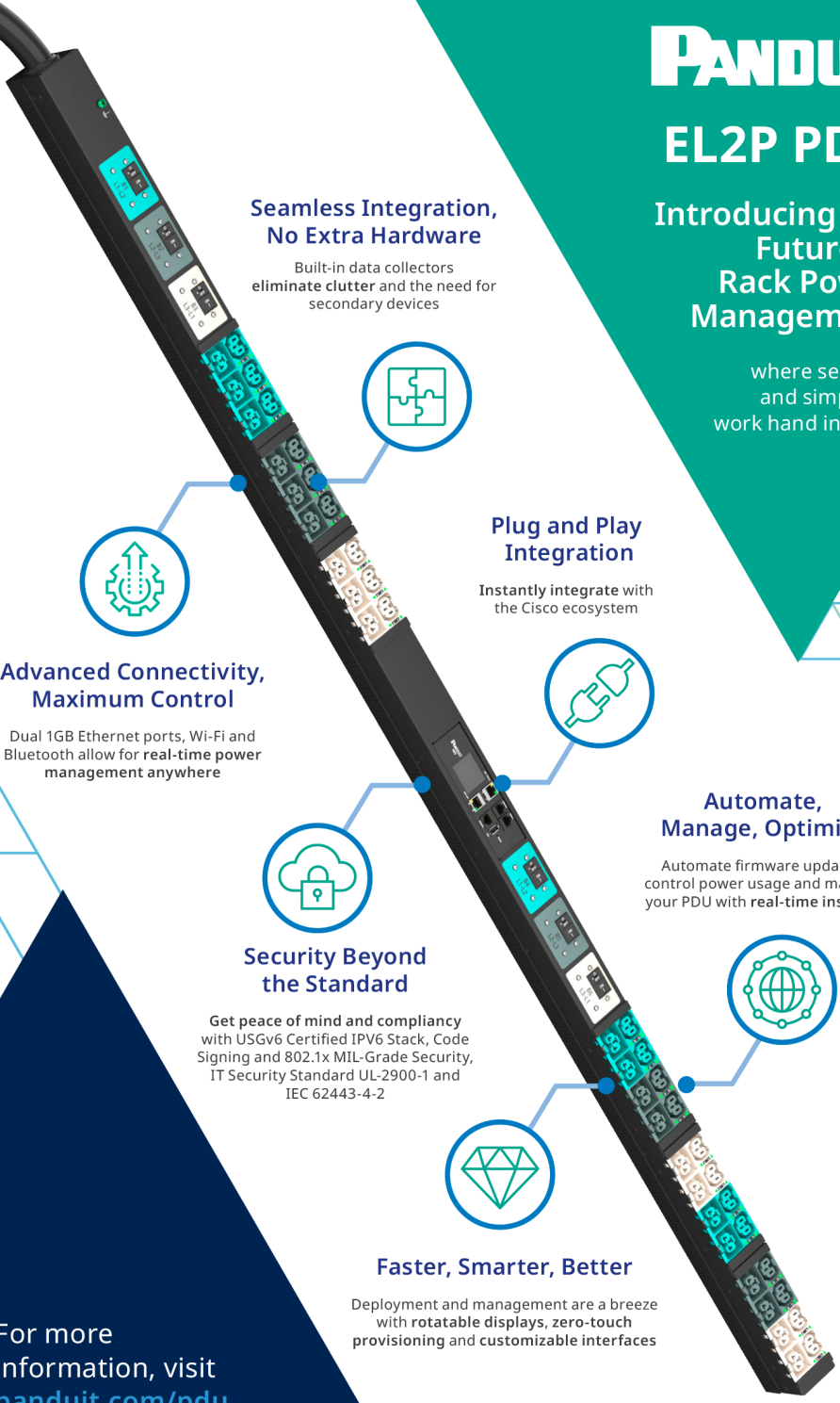
The government claims that the North East AI Growth Zone will attract £30bn in private investment and create over 5,000 jobs. This is impressive, not just for the region but for the country as a whole. However, as Jon makes clear, turning the goal into reality involves a wide variety of factors, with investment in people a vital part of the strategy. For an industry that already has a skills shortage this won't be easy.

PANDUIT™

EL2P PDU

Introducing the Future of Rack Power Management

where security and simplicity work hand in hand



Seamless Integration, No Extra Hardware

Built-in data collectors **eliminate clutter** and the need for secondary devices

Plug and Play Integration

Instantly integrate with the Cisco ecosystem

Advanced Connectivity, Maximum Control

Dual 1GB Ethernet ports, Wi-Fi and Bluetooth allow for **real-time power management anywhere**

Automate, Manage, Optimize

Automate firmware updates, control power usage and manage your PDU with **real-time insights**

Security Beyond the Standard

Get peace of mind and compliancy with USGv6 Certified IPV6 Stack, Code Signing and 802.1x MIL-Grade Security, IT Security Standard UL-2900-1 and IEC 62443-4-2

Faster, Smarter, Better

Deployment and management are a breeze with **rotatable displays**, **zero-touch provisioning** and **customizable interfaces**

For more information, visit **panduit.com/pdu**

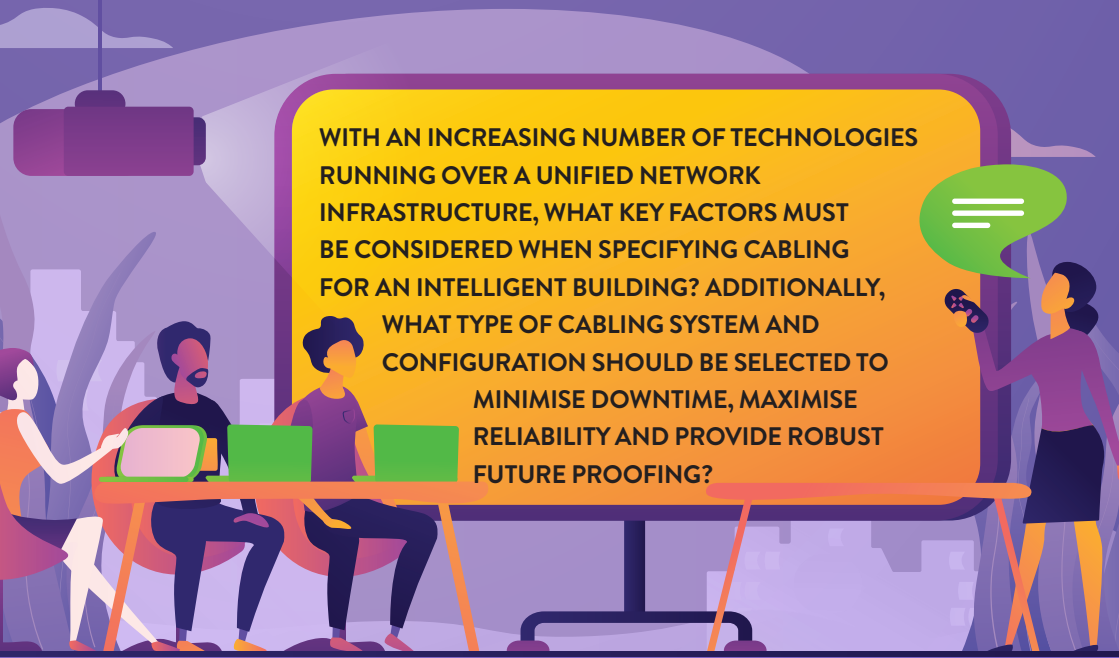
Joined up thinking

Commercial buildings have changed considerably over the past decade or so and this evolution shows no sign of slowing down. Inside_Networks has assembled a panel of industry experts to identify what type of cabling system and configuration should be selected to minimise downtime, maximise reliability and provide robust future proofing

The era of the intelligent building has truly arrived, placing network infrastructure at the heart of modern design. A robust and reliable network is now essential to ensure that a wide range of building services including audiovisual (AV), security, access control, building management systems (BMS) and lighting can operate effectively.

At the core of this intelligence is the convergence of all building services on to a single, unified network infrastructure. This approach also supports the integration of low voltage technologies including power over Ethernet (PoE). As a result, forward thinking organisations are increasingly adopting intelligent building concepts, recognising that interconnected systems enhance operational efficiency, create optimal comfort conditions and improve occupant wellbeing.

So, as more technologies rely on a shared network infrastructure, careful consideration must be given to the underlying cabling system. To address this, Inside_Networks has brought together a panel of industry experts to highlight the key factors involved in specifying cabling for intelligent buildings.



MICHAEL AKINLA

BUSINESS MANAGER NORTHERN EUROPE AT PANDUIT

As building systems converge on to a unified IP network, cabling for an intelligent building now should be specified as critical, shared infrastructure that carries both data and power to an ever faster growing mix of devices. This bewildering array includes lighting, security, AV, sensors and workplace technology, as well as heating, ventilation and air conditioning (HVAC) controls.

I believe the first factor to consider is bandwidth headroom. Planners must specify media and connectivity that comfortably support today's multigigabit and 10Gb/s links, as well as the higher device densities that smart buildings generate, without requiring premature re-cabling.

Second, power delivery over PoE must be planned alongside data. With PoE, Single Pair PoE and fault managed power increasingly used to run edge devices, cable categories, conductor quality, resistance and thermal pathways all affect safe, efficient power distribution.

Third, electromagnetic interference (EMI) resilience and grounding matter more as low voltage systems sit near electrical services and building machinery. Structured cabling that is correctly installed, bonded and grounded reduces noise risk and improves reliability for critical services.

Fourth, installation quality and manageability are design requirements. Pathways, cable management, labelling and a standards-based topology ensure that moves, adds and changes (MACs) can be executed quickly and accurately, preventing disruption across multiple building services. Finally, choose a platform that supports sustainability and lifecycle value, aligning with energy efficient operations and a long service life.

To minimise downtime, maximise reliability and future proof the building, I recommend an end-to-end structured cabling system using a standards compliant topology from floor and zone to telecom room, with zone cabling where device churn is high. This modular approach localises change, reduces the extent of any damage caused by faults and speeds restoration.

Selecting Category 6A (or higher) copper for horizontal PoE links and high density optical fibre for backbone and aggregation provides deterministic performance today and a clear upgrade path tomorrow. Combined with robust physical management, this architecture creates a resilient digital building foundation that stays ready for whatever smart technologies come next.

'TO MINIMISE DOWNTIME, MAXIMISE RELIABILITY AND FUTURE PROOF THE BUILDING, I RECOMMEND AN END-TO-END STRUCTURED CABLING SYSTEM USING A STANDARDS COMPLIANT TOPOLOGY FROM FLOOR AND ZONE TO TELECOM ROOM, WITH ZONE CABLING WHERE DEVICE CHURN IS HIGH.'

prysmian

BENDBRIGHT^{XS} 160 µm

The world's first 160 µm bend-insensitive fibre

Higher capacity. Smaller footprint. **BendBright^{XS}** 160 µm single-mode delivers faster, more cost-effective deployments in space-constrained ducts, buildings, and data centres without disrupting established field practices.

Reduced-diameter coating with a 125 µm glass diameter and full G.652/G.657.A2 compliance.

- Enables slimmer, lighter, high-count cables that install faster and travel further when blown
- Significant increase in fibres thanks to a >50% cross-sectional area reduction versus 250 µm fibres
- Full backward-compatibility with legacy single-mode fibres for seamless splicing and upgrades
- Superior bend performance and mechanical reliability with Prysmian's **ColorLock^{XS}** coating system
- Ideal for FTTH/X access, metro densification, and hyperscale/data centre interconnects where every millimetre counts

Ready to boost capacity and shrink your network footprint?

Connect with our experts, request samples, or download the **BendBright^{XS}** 160 µm technical data today.

CHRIS FRAZER

PRINCIPAL CONSULTANT AT LAYER ZERO SERVICES

Intelligent building cabling must support day one and anticipated future requirements, and to achieve this, intelligent building cabling designs must consider the following:

- Devices virtually anywhere in the building
- Changes to intelligent building requirements over time
- Devices to be connected, from small sensors to wireless access points
- PoE support
- Cable route planning
- Field terminated plugs and future Single Pair Ethernet
- How the intelligent building system will return tangible benefits to the owner/landlord/tenant

The type and configuration of intelligent building cabling is critical in providing the optimum medium to support an increasingly wide range of devices. Category 6A is more expensive than Category 5e, but it's worth the cost in the long-term just based on its greater support of PoE due to the larger core size. Optical fibre cabling is usually required to link local comms rooms or cabinets to a main comms room and a small amount of backbone Category 6A could support anything requiring a copper connection, where distances permit.

More structured cabling system manufacturers are now supporting increased data rates over distances greater than 100m. This can be particularly useful in intelligent building designs, allowing longer cable distances from the network switch to device where a supported data rate is used.

It's usually neither practical nor desirable to create multiple, small IT equipment rooms just to support intelligent building cabling. I've employed many zone based intelligent building cabling solutions using small, strategically located tertiary equipment cabinets (TECs). Separate networks for intelligent building and corporate can be considered where there is a desire to keep corporate networks separate.

Even 10 years ago, intelligent building cabling was seen as something niche. However, with the introduction of many more intelligent building devices and software to control, report and manage devices, this is an exciting area of building development, greatly improving environments for landlords and tenants alike.

Cabling systems have developed significantly over the past 50 years and that's just one thing which makes this industry one of the most enjoyable to be involved in. Intelligent buildings are just one more change.

'MORE STRUCTURED CABLING SYSTEM MANUFACTURERS ARE NOW SUPPORTING INCREASED DATA RATES OVER DISTANCES GREATER THAN 100M. THIS CAN BE PARTICULARLY USEFUL IN INTELLIGENT BUILDING DESIGNS.'

NIKOLAY EFIMOV

TECHNICAL PROJECTS MANAGER UK, IRELAND AND CENTRAL ASIA AT SIEMON

As smart buildings continue to evolve, we are seeing a clear shift towards fully converged networks. Lighting, HVAC, access control, AV, Wi-Fi, security and BMS are increasingly running over a single infrastructure. That convergence brings efficiency, but it also means the cabling system is now mission critical. If it fails, large parts of the building fail with it.

One of the most important factors when specifying cabling for smart buildings is power delivery. PoE Type 3 and Type 4 are seeing increasingly widespread adoption, as their additional functionality enables more efficient power management and helps improve the overall energy efficiency of the system. This allows a wide range of devices to be powered directly over the network – and in some cases over longer distances.

We are also seeing growing recognition that meeting minimum standards is no longer enough. Smart buildings operate in dense, real world environments rather than controlled test conditions. Specifying cabling systems that exceed ISO/IEC and TIA requirements provides valuable performance headroom and helps maintain stability as device density, bandwidth and power demands increase. Fire safety remains equally critical, with Construction Products Regulation (CPR) compliant solutions playing an important role in protecting people and infrastructure.

When it comes to cabling system design and configuration, a zoned cabling architecture is increasingly central to minimising downtime and improving resilience. By bringing network connections closer to endpoints, zoned cabling reduces cable lengths, limits failure domains and makes faults easier to isolate. When combined with planned redundancy between zones, this approach simplifies maintenance and supports flexibility as buildings evolve.

For copper infrastructure, Category 6A remains the most practical long-term choice for smart buildings, supporting 10Gb/s applications alongside high power PoE. For backbone networks, OM4 or OS2 fibre with modular MPO configurations provides a clear upgrade path towards higher speeds.

Finally, we are seeing customers increasingly favour complete, end-to-end cabling systems from a single manufacturer. Consistent design, predictable performance and full system warranties all contribute to higher reliability, reduced risk and stronger long-term future proofing.

‘A ZONED CABLING ARCHITECTURE IS INCREASINGLY CENTRAL TO MINIMISING DOWNTIME AND IMPROVING RESILIENCE. BY BRINGING NETWORK CONNECTIONS CLOSER TO ENDPOINTS, ZONED CABLING REDUCES CABLE LENGTHS, LIMITS FAILURE DOMAINS AND MAKES FAULTS EASIER TO ISOLATE.’

MATTHIAS GERBER

MARKET MANAGER LAN CABLING AT R&M

As more building technologies converge on to a single, unified network incorporating lighting, HVAC, security, AV, sensors, space management and IoT, cabling infrastructure becomes the foundation for performance, safety and long-term flexibility. When specifying cabling for intelligent buildings, it's important to focus on delivering consistent bandwidth and power, while reducing risk and avoiding disruptive upgrades later.

A first priority is bandwidth in the digital ceiling. With data hungry endpoints and aggregation points moving closer to the ceiling space, 10Gb/s copper should be treated as the absolute minimum baseline, subject to channel length and topology.

Where higher throughput is expected, or wherever you want to extend the useful life of the installation, planning should also account for 25Gb/s and 40Gb/s ready options such as Cat 8.1 or hybrid fibre/power (FO/PWR) solutions. This approach helps ensure that new applications can be added without needing to pull out cabling during a building's operational lifetime.

In parallel, PoE is becoming central to intelligent building design, powering luminaires, sensors, cameras, access points and controllers. PoE turns the cabling plant into an electrical system as well as a data system.

That shifts attention to cabling and component quality – safe, PoE-capable connectivity matters, as do design details that are easy to overlook. Bundle heating needs to be managed through appropriate installation practices and remote powering (RP) category design. Specifications should address resistance unbalance, which can affect both data integrity and power delivery.

To minimise downtime and maximise reliability, select a structured, standards based system – Cat 6A as the core network cabling, complemented where appropriate by hybrid FO/PWR for higher speeds, longer runs or challenging environments. Target RP3 rated designs with warranty backed performance and favour branded, end-to-end system solutions so components are validated together and covered as a complete channel. Use application specific cabling only as a problem solver for unique cases and avoid relying on extended lengths outside standard practices.

Finally, future proofing is largely about margin. Install sufficient links, in the right places, with ample performance headroom, so that the building can evolve without re-cabling and without unplanned downtime.

'WITH DATA HUNGRY ENDPOINTS AND AGGREGATION POINTS MOVING CLOSER TO THE CEILING SPACE, 10GB/S COPPER SHOULD BE TREATED AS THE ABSOLUTE MINIMUM BASELINE, SUBJECT TO CHANNEL LENGTH AND TOPOLOGY.'

BUSINESS ISN'T GETTING ANY EASIER.

BUT WITH ECA ON YOUR SIDE, THE FUTURE LOOKS REFRESHINGLY SIMPLE.

As the UK's leading membership body for electrical contractors, we help businesses like yours prepare for whatever's next.

Become an ECA Member and unlock the tools you need to win contracts, grow stronger and get your voice heard.

Enjoy tailored support across your business for...

- Technical issues
- Safety, health and environment
- Employee relations
- Legal and business
- Education and skills

scan me

SECURE YOUR SUCCESS

REGISTER TODAY

PLATFORM UK

Powering the future

Investment, energy and risk in the race for UK AI sovereignty

The premier annual investment forum for energy, digital infrastucture and real estate, across the four nations.

25 FEBRUARY 2026, CONVENE, 22 BISHOPGATE, LONDON, UK

NICK EDWARDS

PRODUCT MARKETING MANAGER LAN AT HELLERMANNTYTON

According to a Nokia 2025 report, enterprise and industrial traffic is forecast to more than double by 2034, with aggressive scenarios reaching 913EB per month, driven by automation, high resolution video, AI analytics and remote access. IoT traffic will grow at a five per cent CAGR, while extended reality traffic will surge by 50 per cent CAGR. This all requires robust, high speed infrastructure.

Buildings evolve. A system that enables easy expansion and rapid moves, adds and changes (MACs) reduces disruption and lifecycle costs. When it comes to environmental resilience, cables should withstand temperature fluctuations, electromagnetic interference (EMI) and moisture, with proper shielding and installation practices to maintain signal integrity. Furthermore, adherence to fire safety, electromagnetic compatibility (EMC) and sustainability standards is critical for legal compliance and occupant protection.

A structured cabling system based on a hierarchical star topology remains best practice, centralising connectivity for simplified troubleshooting and modular upgrades. To enhance this foundation, there are two advanced approaches that deliver added value to the network owner:

- Zone cabling architecture. Intermediate consolidation points closer to work areas enable faster MACs, reduced disruption during reconfiguration and lower lifecycle costs.
- Passive optical LAN (POLAN). Optical fibre based architecture with passive splitters offers high bandwidth, long distance capability, reduced telecom room space, lower energy consumption and simplified management.

A recommended future proofing strategy is a hybrid approach. Category 6A copper for endpoints combined with a fibre backbone cabling ensures reliability and scalability for emerging technologies like immersive extended reality and AI-driven analytics.

Even the best cabling products cannot deliver peak performance without skilled installation. Certified engineers ensure compliance, quality workmanship with handling and termination of cabling and connectivity, alongside thorough certification testing. This prevents costly downtime and maximises network lifespan.

By combining standards based design, advanced architectures and expert installation, intelligent buildings can achieve robust performance today while remaining prepared for tomorrow's demands.

'EVEN THE BEST CABLING PRODUCTS CANNOT DELIVER PEAK PERFORMANCE WITHOUT SKILLED INSTALLATION. CERTIFIED ENGINEERS ENSURE COMPLIANCE, QUALITY WORKMANSHIP WITH HANDLING AND TERMINATION OF CABLING AND CONNECTIVITY, ALONGSIDE THOROUGH CERTIFICATION TESTING.'

BARRY ELLIOTT
DIRECTOR AT CAPITOLINE

Intelligent building cabling traditionally takes in many more services than local area network communications and includes a whole range of media. We already have two standards that define what cabling should be used:

- EN 50173-6:2018 Information Technology - Generic Cabling Systems Part 6: Distributed Building Services
- ANSI/TIA-862-C June 2022 Structured Cabling Infrastructure, Standard for Intelligent Building Systems

The unification between LAN traffic and many other services is reflected in the coming merger of the TIA-862 standard. TIA-568 is to become ANSI/TIA-568.1-F, which will be published early 2027. The current version of TIA-862 had already dropped the terminology 'building automation services' from its title and adopts the term 'intelligent buildings'.

The standards already tell us what cables to use. EN50173-6 requires balanced Category 6A, 7, 7A, 8.1 and 8.2 cables and optical fibre cables of OM3, OM4, OM5, OS1a and OS2. TIA862 requires 4-pair balanced twisted pair cabling in compliance with ANSI/TIA-568.2, with Category 6A minimum, but it also adds balanced single twisted pair cabling in compliance with ANSI/TIA-568.5.

For optical fibre it requires multimode optical fibre cabling in compliance with ANSI/TIA-568.3, two fibres minimum, with OM4 or OM5 recommended. Singlemode optical fibre cabling should comply with ANSI/TIA-568.3, with two fibres minimum.

Category 6A offers a 500MHz channel optimised for 10Gb/s transmission. That's a lot of bandwidth for a thermostat that might need a data rate of a few bits per minute.

A big advantage of Category 6A, however, is the bigger conductor size, which allows more current for PoE and less derating in the number of cables allowed in a bundle. The standards allow for 22-24AWG wire, which is 0.325mm^2 for 22AWG, 0.2582mm^2 for 23AWG and 0.205mm^2 for 22AWG. That's 58 per cent more cross sectional area for 22AWG compared to a 24AWG.

In practice, anything from Category 5 to Category 6 will do for the bandwidth requirements of intelligent building control systems but the additional size of Category 6A will be of big help in terms of power transmission over the same cable. Finally, don't forget the fire performance of the cable. If it's indoors then it needs to meet European Construction Products Regulation (CPR), which in the UK is defined within BS 6701:2017.

'IN PRACTICE ANYTHING FROM CATEGORY 5 TO CATEGORY 6 WILL DO FOR THE BANDWIDTH REQUIREMENTS OF INTELLIGENT BUILDING CONTROL SYSTEMS BUT THE ADDITIONAL SIZE OF CATEGORY 6A WILL BE OF BIG HELP IN TERMS OF POWER TRANSMISSION OVER THE SAME CABLE.'

«Connecting the Planet»

For us, connectivity is not just defined by product solutions. It is about actively shaping society and promoting its sustainable progress through the exchange of data and knowledge.

«Connecting the Planet» is our company-wide sustainability program. It connects our vision of «unlimited communication» and our mission «Connectivity that matters» with corporate responsibility.

Reichle & De-Massari AG
Binzstrasse 32, 8620 Wetzikon
+41 (0)44 933 81 11, hq@rdm.com

www.rdm.com

GOLD | Top 5%
ecovadis
Sustainability Rating
SEP 2025

R&M

Guide and seek

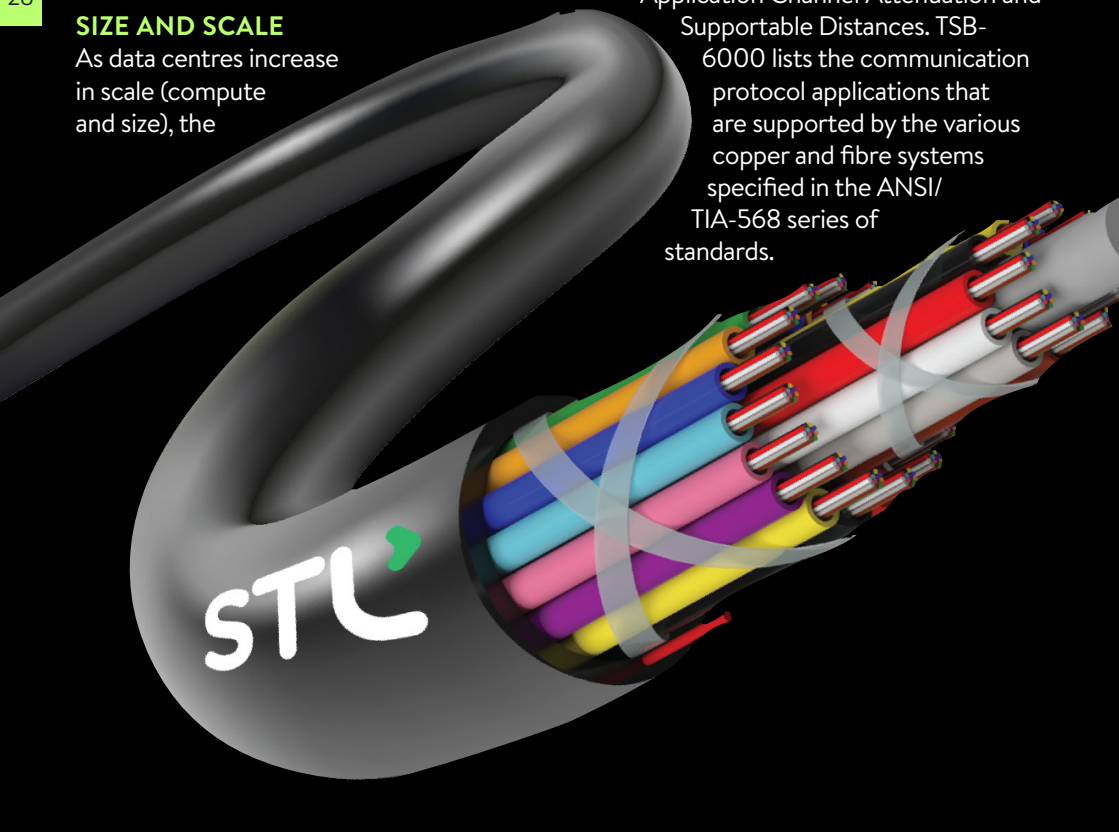
Sitaramaiah Alamuri of STL - Sterlite Technologies examines TIA TSB-6000 and explains why it is so important for data centre design

The rapid increase in the volume of data being collected and processed, coupled with the increasing demand for fast and reliable connectivity, has made the modern data centre a key hub of the AI led digital age. The use of the graphics processing unit (GPU), with its parallel processing capability, as the primary compute processor within the data centre, in conjunction with a spine and leaf network design, has necessitated the evolution of cabling solutions and practices.

SIZE AND SCALE

As data centres increase in scale (compute and size), the requirements for robust, efficient and future proofed cabling solutions have intensified. Cabling infrastructure must now accommodate higher capacities, provide reliable and fast connectivity across larger spaces, and support the operational needs of the increasingly optical fibre rich, complex data centre environment.

In January 2025, the Telecommunications Industry Association (TIA) released a new telecommunications systems bulletin (TSB), designated TSB-6000 and titled Application Channel Attenuation and Supportable Distances. TSB-6000 lists the communication protocol applications that are supported by the various copper and fibre systems specified in the ANSI/TIA-568 series of standards.



‘By focusing on applications and associated cabling infrastructure, TSB-6000 helps professionals to design efficient and scalable cabling solutions that meet the stringent requirements of the modern data centre.’

Unlike published standards, TSBs only serve as guidelines or recommendations that address emerging technologies and practices. Application standards and cabling manufacturers’ guidelines should still be considered for any practical system implementation.

GOING THE DISTANCE

The focus of TSB-6000 on applications and associated cabling requirements is particularly useful when addressing the quickly evolving data centre market.

TSB-6000 lists maximum support distances for various communication protocol applications deployed over copper and fibre media including:

- Balanced twisted pair copper cables (Category 3, 5e, 6, 6A and 8). The maximum supporting distances for applications using balanced twisted pair copper cabling are listed.
- Optical fibre cables. The maximum supportable distances and channel attenuation for Ethernet, InfiniBand and Fibre Channel applications using multimode and singlemode fibre cables are listed. Maximum supportable distances and minimum and maximum channel attenuation for singlemode fibre passive optical network (PON) applications are presented.
- Broadband coaxial cables. Maximum supportable distances for broadband applications using coaxial cabling are listed.

The main emphasis of TSB-6000 is on applications and recommended cabling distances that support the applications. By focusing on applications and associated cabling infrastructure, TSB-6000 helps professionals to design efficient and scalable cabling solutions that meet the requirements of modern data centres.

SEE THE LIGHT

The traditional three tier (core, distribution, access) data centre architecture is being supplanted by two tier spine and leaf architecture offering low and predictable latency and higher resilience. This is critical for the quality of service offered by data centre operators.

Endpoint capacity can also easily be added by inserting more leaf switches, or bandwidth can be increased by adding more spine switches, without costly changes to the architecture. Resilience is inherently improved by the mesh connection between the leaf and spine layers – every leaf switch is directly connected to every spine switch. This provides built-in redundancy and high availability.

Spine and leaf architecture naturally

‘Whether planning a new data centre or upgrading an existing one, understanding the guidelines within TSB-6000 helps ensure a cabling infrastructure can support the next generation of digital services.’

requires more fibre cabling and a very high number of fibre connections per rack because of the high server density and the use of high speed optical devices. Fibre cabling offers advantages when deployed in data centres, especially in large facilities where high bandwidth, low latency and minimal signal degradation are critical. Key benefits include:

- Support for ultra-high data rates (40/100/400/800Gb/s and beyond).
- Long distance transmission without significant loss.
- Immunity to electromagnetic interference.
- Reduced size and weight, facilitating dense installations.

MEETING THE CHALLENGE

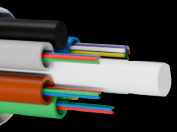
Data centres house thousands or tens of thousands of servers, storage devices and networking devices, all interconnected by an intricate web of cabling. The scale and complexity of the data centre environment present ongoing challenges including:

- High port densities requiring advanced cable management solutions.
- Long distances between equipment necessitating robust transmission capabilities.

‘TSB-6000 lists the communication protocol applications that are supported by the various copper and fibre systems specified in the ANSI/TIA-568 series of standards.’

- Stringent requirements for scalability, reliability and ease of maintenance.
- Rapid technological change demanding future ready infrastructure.

While TSB-6000 provides application/distance guidance, data centre architects must also consider other factors such as:

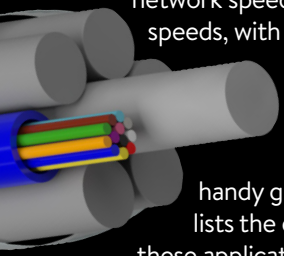


- Vendor compatibility and interoperability of fibre and hardware.
- Environmental conditions including temperature and humidity control.
- Security and access management for cabling infrastructure.
- Compliance with regional and international standards.

Continuous training and awareness for installation and maintenance teams are also essential to ensure consistent adherence to best practices.

PLAN OF ACTION

Whether planning a new data centre or upgrading an existing one, understanding the guidelines within TSB-6000 helps ensure a cabling infrastructure can support the next generation of digital services. As network speeds gallop towards terabit speeds, with multiple applications specified by the IEEE standards, it is very important for network architects to have a handy guide like TSB-6000 that lists the distances supported by these applications.



By providing a design framework, TIA TSB-6000 helps data centre architects, engineers and IT professionals ensure that their cabling infrastructure meets the expectations of data centre operators. ■

SITARAMAIAH ALAMURI

Sitaramaiah Alamuri is data centre solutions portfolio consultant at STL – Sterlite Technologies. He has a successful track record, having led several businesses in network infrastructure products and solutions, and held market leadership positions in India. He is an expert at taking new technologies and solutions to market and managing sales breakthroughs.

Fit for purpose

When it comes to specifying singlemode optical fibre in building networks, Lars Züllig of R&M explains why freedom of choice is so important

In 2024 the European Parliament and European Council adopted Regulation (EU) 2024/1309, which introduced measures intended to reduce the cost of deploying gigabit networks. This amended Regulation (EU) 2015/2120 and repealed Directive 2014/61/EU (the Gigabit Infrastructure Act).

HOME RUN

To support targeted cost reduction, some national and local regulatory committees are moving toward specifying ITU-T G.657.A2 fibre for fibre to the home (FTTH) cabling. The rationale is straightforward – if one already prescribed bend insensitive fibre type is used consistently in passive infrastructure, planning and installation may be simpler, thereby reducing complexity and cost.

In at least one European country, the government has asked the relevant standards body to create a cabling regulation for all non-residential buildings. The intention is to keep the same basic fibre characteristics already used in residential deployments. In practice, this means G.657.A2 would remain the required

'Standardisation committees' drive to define one specific fibre for all building types is understandable. However, we can't simply assume that the defined fibre will bring about the desired network cost savings.'

fibre for residential installations and would also be mandated for network access and building distribution in new projects.

WHAT'S THE PROBLEM?

This approach would effectively exclude ITU-T G.657.A1 fibre – even though it is fully compliant and compatible with existing infrastructure. It should not be dismissed so easily.

G.657.A1 is typically used instead of G.652.D in many new access and indoor installations. It is designed for tighter routing in buildings, while remaining compatible with connectors and splicing methods for G.652.D fibre links. In practical terms, it delivers low macrobending loss at smaller bend radii than standard singlemode fibre, while maintaining transmission performance across the usual access wavelengths – 1310nm and 1550nm and beyond.

G.652.D has a very broad installation base and is widely regarded as the 'standard' singlemode fibre. It is optimised for 1310nm and 1550nm operation, with reduced hydroxyl (OH) absorption that enables use across 1260-1625nm for coarse wavelength division multiplexing (CWDM) and dense wavelength division multiplexing (DWDM) applications. It also has well known geometry and attenuation characteristics, making it a common choice for metro and long haul links.

FEATURES AND BENEFITS

G.657.A1 maintains low macrobending loss at small bend radii – typically down to ~10mm – compared with standard singlemode fibre. Optical performance covers 1310nm and 1550nm and beyond, supporting FTTH, patch cords and crowded cabinets. It bends much tighter (down to ~10mm design radius) while essentially retaining the mode field diameter (MFD) and C-band attenuation limits of G.652.D in ITU-T tables.

The two fibres are not only compatible in terms of mechanical and transmission properties but also in terms of geometrical properties – especially taking MFD into consideration. Overall, G657.A1 can be considered as the better choice simply by the fact of allowing tighter bending radii.

These fibres can usually be spliced together. Although G.657 fibres with a trench have been known to cause problems during splicing, splicer manufacturers' software updates now take refraction of light through the trench into account. This allows G.652.D and G.657 fibres to be spliced without problems.

MONEY MATTERS

G.657.A2 has clear advantages in very tight routing and fibre management, for example, inside termination units and outlets where bend radius constraints are strict. More robust bend performance can also simplify handling and reduce installation time. However, it's important to understand that G657.A2 fibres are some

‘Of course, cable manufacturers are happy to produce multi-fibre cables with G657.A2 fibres. However, they need to be reimbursed for material costs and can't expect to sell cables will at the same prices as G657.A1 fibres.’

30 per cent more expensive than G657.A1 fibres and not necessary for every type of application.

For FTTH cabling to the outlet, Europe relies on the two fibre or maximum four fibre model. A four fibre cable is slightly more expensive than a standard fibre but offers the installer the added value of tighter bend radii. It does not significantly impact the total cost of ownership calculation.

However, if the number of fibres in the cable is increased and the advantages of the more expensive fibres offer no added value, then this has an impact on the cost calculation. It's worth noting that the material for the passive infrastructure only accounts for approximately 20 per cent of the total cost of a gigabit capable building network. The question then arises whether the attempted reduction in complexity will result in cost savings.

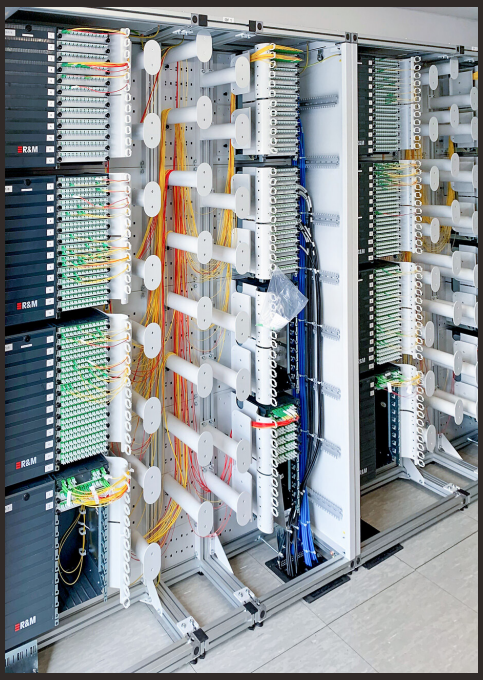
SPECIFY PERFORMANCE

Standardisation committees' drive to define one specific fibre for all building types is understandable. It reduces complexity of the network as well as the logistics and warehousing for installers and their distributors. However, we can't simply assume that the defined fibre will bring about the desired network cost savings, as

the share of these costs is too small in the overall context.

As mentioned, higher material costs are to be expected and the cables used are more expensive due to the higher fibre count and I don't expect them to become cheaper. On the contrary, if the market mechanism plays out correctly, demand for G657.A2 fibres will increase slightly but available supply won't change significantly. This will drive fibre shortages and ultimately lead to further cost increases.

Of course, cable manufacturers are



happy to produce multi-fibre cables with G657.A2 fibres. However, they need to be reimbursed for material costs and can't expect to sell cables will at the same prices as G657.A1 fibres. So, defining a specific singlemode fibre might not be such a great idea and we might even say it borders on over-regulation. If the specific type remains freely selectable, even where singlemode fibre is promoted, manufacturers and installers can flexibly react to changes in the market, as well as application driven challenges.

DEFINING MOMENT

A more robust approach would be to define performance requirements, such as bend radius, attenuation and compatibility, and allow freedom of choice between compliant options such as G.657.A1 and G.657.A2. This would ensure that decisions are based on the real current and future needs of the installation. ■

LARS ZÜLLIG

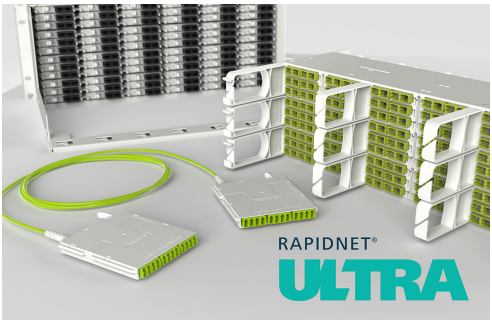
As global product manager for fibre optic cables, Lars Züllig is responsible for defining and managing a profitable fibre optic cable portfolio for R&M. Züllig has been in the fibre business for over 25 years, as product manager for passive components such as connectors, splice boxes and closures, racks, panels, outlets and cables.

HellermannTyton

For 20 years HellermannTyton has been a pioneer in pre-terminated infrastructure with its RapidNet solution. RapidNet is the pre-terminated, pre-tested cassette based plug and play system developed by HellermannTyton that is designed to deliver high performance and improve the ease and speed of infrastructure deployments.

HellermannTyton has now launched RapidNet ULTRA. Taking the existing data centre optical fibre solution beyond today's requirement, it offers an even greater fibre density while accommodating very small form factor (VSFF) connectivity. RapidNet ULTRA supports tomorrow's requirements for high bandwidth, advanced network architectures and Ultra Ethernet.

With a range of cassette formats and fibre assemblies, RapidNet ULTRA delivers high performance and fibre capacity to meet the demands of the modern day data centre. To see the range of RapidNet ULTRA solutions, along with the new GigaDuct fibre raceway from HellermannTyton, visit us on **Stand F55** at this year's **Data Centre World.**

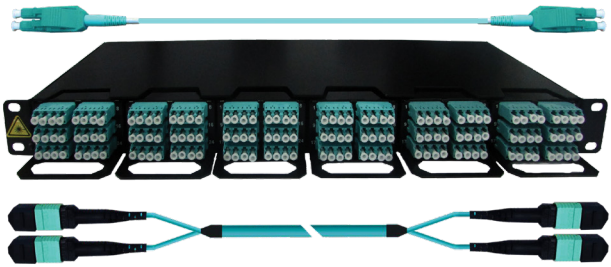


To find out more about RapidNet ULTRA **CLICK HERE.**

www.htdata.co.uk

STL - Sterlite Technologies

STL delivers high performance, end-to-end optical fibre cabling systems that are tailored for data centre inside plant (ISP) applications, especially in the white space area.



STL's solutions are designed to simplify complexity and support seamless network upgrades. The company offers a complete range of LC and MPO connectivity in singlemode and multimode (OM3/OM4) variants. Low loss assemblies enable cost effective edge deployments, while ultra-low loss options ensure superior performance in high speed core applications. All MPO assemblies and cassettes follow Method B polarity for consistency and ease of use.

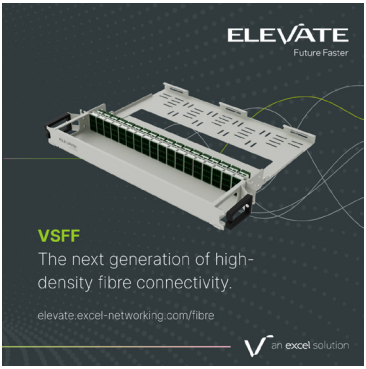
Our structured cabling systems are fully compliant with global standards – ANSI/TIA-942, TIA-568 and ISO/IEC 11801 – and are backed by a 25-year performance warranty. STL's structured cabling solutions are engineered for scalability, performance and long-term reliability.

To find out more **CLICK HERE.**

stl.tech

Elevate

As data centre demands intensify, the Elevate very small form factor (VSFF) solution delivers next generation high density optical fibre connectivity, engineered for scalability and performance. Leveraging industry leading SENKO SN and SN-MT technology, Elevate enables up to 3,456 fibres in a single 1U rack space – maximising capacity while minimising footprint.



Designed for hyperscale, edge and enterprise environments, Elevate VSFF ensures robust, low loss connectivity for mission critical applications. Its modular design supports seamless migration paths, with integrated cable management and clear labelling for simplified installation and maintenance.

Whether you're consolidating servers, deploying AI clusters or future proofing your infrastructure, Elevate VSFF offers cost effective scalability and flexibility. The solution includes patch panels, cassettes and cable assemblies, which are all optimised for high performance and easy integration.

Discover how Elevate VSFF can transform your white space. **CLICK HERE** to visit the Elevate website and download the latest VSFF Family Brochure or **CLICK HERE** to send an email.

elevate.excel-networking.com

Excel Networking Solutions

Excel Networking Solutions' Enbeam optical fibre cabling systems provide fast, reliable and future ready connectivity for today's data driven environments. Designed for enterprise networks, data centres and industrial applications, the range includes singlemode and multimode options across OM3, OM4 and OS2 to support high performance transmission over long distances.

Engineered for resilience and scalability, Enbeam products undergo extensive third-party testing and meet Construction Products Regulation (CPR) Euroclass requirements, ensuring consistent quality and compliance. Installers can also benefit from pre-terminated fibre assemblies, which reduce installation time and minimise disruption on-site.

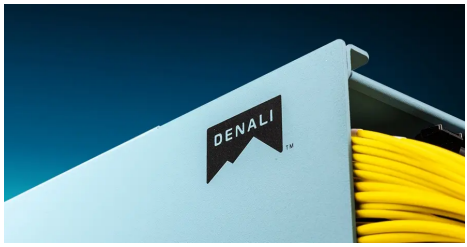
Available in loose tube, tight buffered and indoor/outdoor constructions, the Enbeam portfolio is built for durability in even the most demanding environments. Every solution is backed by a 25-year warranty when installed by an accredited partner, reflecting Excel's commitment to performance, sustainability and long-term value.

CLICK HERE to discover the full Enbeam fibre range or contact the sales team on 0121 326 7557.

www.excel-networking.com

AFL

AFL's DENALI is a modular optical fibre platform specifically engineered for high growth graphics processing unit (GPU) environments with minimal infrastructure upgrades. The DENALI platform delivers leading edge data centre performance today, while positioning the facilities of tomorrow to scale with the increasing complexity and volume of hyperscale and AI workloads.



With its modular design, the DENALI platform adapts as networks grow, featuring advanced rackmount hardware, cassettes and pre-terminated customisable assemblies. This platform delivers up to 288 LC duplex ports (576-fibres) in 4RU of rack space and supports speeds from 10Gb/s to 800Gb/s and beyond.

The platform's design reduces the number of components required for installation, streamlining inventory management and reducing potential points of failure. DENALI also ensures seamless integration with existing infrastructure, minimising disruption during upgrades and expansions, while cable management solutions reduce maintenance requirements and improve long-term network reliability.

To find out more **CLICK HERE.**

www.aflglobal.com

Siemon

Siemon's LightStack and LightStack 8 ultra-high density fibre plug and play system delivers superior density, port access and cable management in a sleek, modern platform. This makes it ideal for today's advanced data centre or enterprise networking environments.

The black LightStack enclosure and connectivity range is the Base-12 format, while the grey LightStack 8 enclosure and connectivity range is the Base-8 format. Both configurations support singlemode and multimode fibre.

Siemon's innovative solution supports up to 144 fibres per rack unit in a 1U enclosure and enables easy access and management of connectivity from the front or rear. It offers various mounting options and high capacity management clips that are designed to support the maximum capacity of cables as well as simple access. It also includes a range of plug and play transition modules and pass-through adaptor plates designed to deliver a level of performance exceeding today's standards.

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

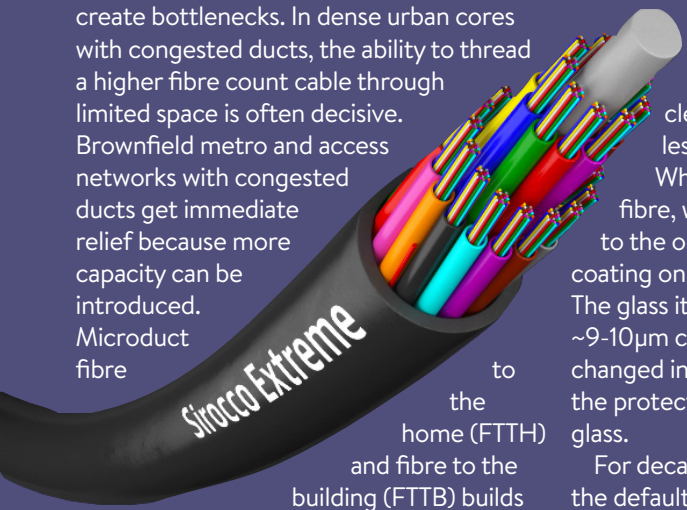
A little goes a lon

Ian Griffiths of Prysmian looks at why smaller diameter optical fibre matters and what it takes to get there

Shrinking the coating around standard 125µm fibres unlocks big gains wherever space is scarce, from crammed ducts and microduct runs to data centre trays, pushing higher fibre counts farther with easier blowing. But it isn't just about 'making it thinner', it takes bend insensitive glass, coatings and cable designs that tame microbends and macrobends, so density soars without sacrificing loss budgets or long-term reliability.

SPACE RACE

Reduced diameter fibres offer vast benefits wherever pathways or passive hardware create bottlenecks. In dense urban cores with congested ducts, the ability to thread a higher fibre count cable through limited space is often decisive. Brownfield metro and access networks with congested ducts get immediate relief because more capacity can be introduced. Microduct fibre to the home (FTTH) and fibre to the building (FTTB) builds benefit because smaller, lighter cables blow further, so you reach more premises per shot and avoid intermediate handholes.



In greenfield microduct builds, improved jetting behaviour and smaller diameters make construction faster, more cost efficient and more environmentally friendly, as smaller microducts can be installed. In rural builds with ample ducting and gentle routes, the gains may be more about future proofing and cabinet and closure density.

LESS IS MORE

High fibre count data centre interconnects and central office feeders often move to lower diameter fibre to get hundreds or thousands of fibres through limited ducts and patching fields while keeping bend radii and routing manageable. Densification projects such as 5G fronthaul and midhaul in tight urban corridors also see practical gains because closures, trays and splitters pack cleaner when each fibre takes up less real estate.

When we talk about lower diameter fibre, we're almost always referring to the outside diameter of the polymer coating on a standard singlemode fibre. The glass itself – the 125µm cladding with a ~9-10µm core – doesn't change. What has changed in recent years is the thickness of the protective coating that surrounds the glass.

For decades, 250µm coated fibre was the default. Today, singlemode 200µm fibre has become the default where cable diameter matters and, as pressure is applied to find even more efficiencies in density, slimmer fibres such as 180µm or 160µm are already available. That may sound like a minor difference, but small shifts in diameter have vast effects for ducts,

g way

'Reduced diameter fibres offer vast benefits wherever pathways or passive hardware create bottlenecks. In dense urban cores with congested ducts, the ability to thread a higher fibre count cable through limited space is often decisive.'

microducts, closures and splice trays.

FEATURES AND BENEFITS

In a buffer tube or ribbon stack, reduced diameter fibre translates into significantly higher fibre counts in the same space, or the same count in a slimmer tube. In turn, this means smaller diameter cables leading to more capacity through congested ducts, easier overbuilds without more civil works, and opportunities to reuse existing infrastructure instead of trenching or adding new pathways.

Thinner and lighter cabling also means improved cable handling and increased jetting distances in blown installations by reducing friction and drag. Minimum bend radius is usually specified as a multiple of a cable's outside diameter, so reducing that diameter can yield a tighter allowed bend. At the network edge, smaller fibres and smaller tubes allow higher density in splice closures and distribution cabinets, which raises the number of terminations you can fit in each footprint, simplifying expansion plans in space constrained handholes or manholes.

There are knock-on cost effects as well. A smaller cable for the same fibre count generally means less sheath and filling compound, smaller reels and easier transport and installation logistics, providing savings in carbon footprint. Those savings might not look dramatic at first, but across a large rollout they compound. Even if the fibre itself comes at a premium cost, duct reuse and reduced construction frequently outweigh this.

ENGINEERING CHALLENGES

Thinning the coating of the fibre changes the mechanical 'cushion' that protects the glass from real world issues – surface roughness inside buffer tubes, pressures from neighbouring fibres, thermal expansion and contraction, and bends induced during handling.

A key challenge is microbend sensitivity. The coating distributes localised stress before it reaches the glass. When that layer is thinner, stresses can couple more readily into the cladding, adding loss, particularly at longer wavelengths. Modern dual layer coatings with tuned moduli help, as does specifying bend insensitive glass such as ITU-T G.657 variants. However, the cable design still must be optimised, as tube materials, excess fibre length and gels or dry water blocking elements all matter.

LIGHT WORK

Tiny, irregular pressures along the fibre cause microbends that couple light out of the guided mode. A soft, low elastic modulus inner primary coating acts like a cushion, spreading those point loads so the

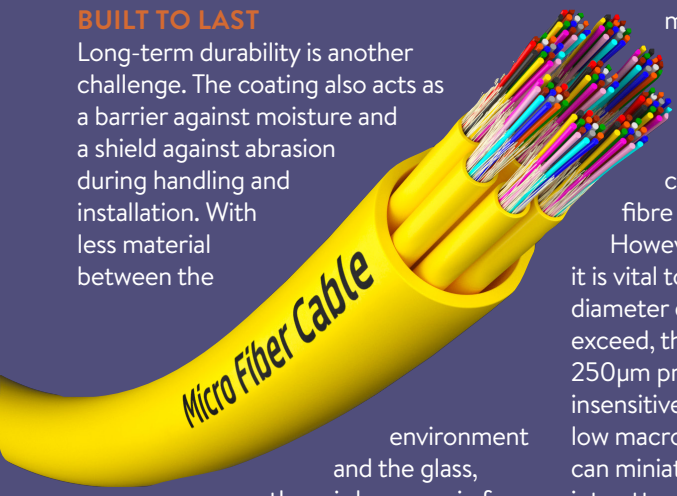
'Smaller diameter coated fibres unlock capacity where space is tight – blowing further, fitting tighter bends and packing more terminations into ducts, closures and trays without extra civil works.'

glass doesn't follow the tiny corrugations. A tougher outer coating gives handling strength, while keeping the inner coating soft across temperature is key – if it stiffens in the cold, microbend loss rises.

Tight bends change the mode's effective index and let light 'tunnel' into the cladding. A depressed index 'trench' in the cladding increases confinement – essentially a barrier that reflects/leads weakly guided field back toward the core – so bend induced radiation drops sharply even at small radii. Performance depends on trench depth, width and distance from the core.

BUILT TO LAST

Long-term durability is another challenge. The coating also acts as a barrier against moisture and a shield against abrasion during handling and installation. With less material between the environment and the glass, there is less margin for aging mechanisms. That is why serious qualification, including temperature cycling, humidity exposure, mechanical impact, crush and torsion testing, is essential when adopting reduced diameter fibres.



Manufacturing tolerances tighten as the coating shrinks. Diameter uniformity, coating concentricity and strip force variability that would be inconsequential at 250µm loom larger at 200µm because the same absolute deviation represents a bigger fraction of the thickness. Good process control solves this but it is another reason to favour suppliers with mature high density lines and to insist on real statistical data, not a single nominal value.

WHAT TO LOOK FOR

By pairing reduced coating with bend insensitive performance, fibres can make it possible to shrink outside plant cable size and boost fibre density while staying within standard loss/compatibility limits. This is perfect for space constrained deployments and high fibre count trunk cables.

However, with the points above in mind, it is vital to remember that any reduced diameter design should meet, or possibly exceed, the same reliability standards as its 250µm predecessor. A well specified bend insensitive design (G.657-class) maintains low macrobending loss at small radii, so you can miniaturise the cable without eating into attenuation margins and still splice/connectorise like G.652.D.

The challenges of thinner coatings can be countered with cable and coating choices that preserve installability and reliability. For handling, the fibre can be packaged in microduct cables explicitly designed

for blowing, which makes field installation faster and easier in tight pathways. For splicing compatibility, compliance with ITU-T G.652.D/G.657.A2 is key, making it possible to splice with legacy standard singlemode fibre using conventional tools.

SIZE MATTERS

Smaller diameter coated fibres unlock capacity where space is tight – blowing further, fitting tighter bends and packing more terminations into ducts, closures and trays without extra civil works. When looking for a solution, make sure it pairs a slim coating with bend insensitive glass, well-tuned dual layer coatings to tame microbends and rigorously qualified cable designs, while holding up to real world stress and tight manufacturing tolerances. ■

IAN GRIFFITHS

Ian Griffiths is the global research and development vice president at Prysmian's Digital Solutions division. He has over 30 years' experience in the telecommunications industry and has held a variety of different roles during this time. Specialising in both optical connectivity and optical cabling solutions, he holds multiple patents for product development and has more than 50 publications in the field.

Schneider Electric appoints Matthew Baynes as vice president of its Secure Power and Data Centre Division UK&I


Matthew Baynes

Schneider Electric has appointed Matthew Baynes as vice president for its Secure Power and Data Centre division in the UK and Ireland. Baynes brings extensive experience across global and regional leadership roles including global ecosystem management, colocation strategy, multi-country account development and data centre focused commercial growth.

In his new role, Baynes will work closely with Schneider Electric's EcoXpert partners, the IT channel, local authorities and ecosystem stakeholders. He will ensure the zone is strategically positioned to meet the rapidly increasing requirements for a sustainable, resilient and AI-ready data centre infrastructure.

Baynes said, 'Data centres are engines for jobs and competitiveness, supporting growth that benefits the digital economy and local communities. This is a pivotal moment to shape their role in the UK and Ireland's digital future and I'm delighted to accept this new role at such a crucial time.'

Virtus Data Centres names Adam Eaton as new CEO


Adam Eaton

Virtus Data Centres has appointed Adam Eaton as its chief executive officer (CEO). With over 20 years of experience spanning the data centre, cloud and managed services sectors, he brings a proven track record of strategic leadership, business transformation and operational excellence from some of the industry's most respected organisations.

Under Eaton's leadership, Virtus will continue to expand its portfolio of high efficiency, sustainable data centres, building on a decade of rapid growth across the UK and mainland Europe. Supported by its shareholders, the company remains committed to its vision to deliver world class, energy efficient infrastructure that supports the growth of the digital economy.

Eaton said, 'I've watched Virtus evolve into one of Europe's leading data centre operators. Helping the company scale and support its next phase of growth is an exciting opportunity. I'm privileged to build on the foundations laid by the existing team, embracing one of the most exciting leadership roles in the industry today.'

Panduit announces key executive appointments to support its strategic growth and innovation

Panduit has announced a series of executive appointments designed to strengthen leadership alignment, accelerate innovation and support the company's long-term growth strategy.


Shannon McDaniel

Shannon McDaniel will now serve solely as chief executive officer (CEO), further sharpening the company's growth and direction. Marc Naese has been named president of the company, expanding his leadership responsibilities as it continues to execute against its corporate strategic pillars of market innovation, manufacturing excellence and customer affinity.

Tom Kelly is now chief technology officer (CTO), bringing deep technical expertise and a strong understanding of the business to the position. He will lead the company's global technology and innovation strategy. Meanwhile, Rebecca Hulse has been named director of AI and digital strategy, a newly expanded role reflecting the company's commitment to digital transformation and responsible AI adoption. Hulse will lead the company's enterprise-wide AI strategy and guide the responsible implementation of AI across the organisation.

'These appointments reflect our continued investment in people and leadership as we prepare Panduit for its next phase of growth,' explained McDaniel. 'These leaders represent the best of Panduit – deep expertise, strong values and a shared commitment to our customers and our people. Together, they will help us shape the future of connected infrastructure.'

CHANNEL UPDATE IN BRIEF

Vertiv has announced the successful acquisition of Purge Rite Intermediate (PurgeRite). The approximately $1bn acquisition enhances Vertiv's thermal management services capabilities and strengthens its position as a global leader in next generation thermal chain services for liquid cooling systems.

LFB Group's Data Centre Solutions division has expanded its capabilities with a multi-million euro investment into its advanced testing and manufacturing facilities in Lyon.

The Association for Consultancy and Engineering (ACE) has announced that Darren Reed has become chair of its Large Consultancy Advisory Council. Reed is executive managing director for transport and infrastructure UK and Ireland at WSP, and brings more than 25 years' experience delivering complex, multi-disciplinary infrastructure projects.

Communicate Technology has appointed Paul Bryce to drive its next stage of growth and value creation. Joining as group CEO, Bryce brings more than 30 years of experience in the channel, including being a founding member of Node4.

One step beyond

Francesco Marasco of nLighten explains why the data centre industry needs hourly carbon measurement

For over a decade, the data centre industry has relied on established metrics to communicate efficiency and environmental performance. Power Usage Effectiveness (PUE) became the gold standard for measuring energy efficiency, whilst annual carbon matching through renewable energy certificates (RECs) or power purchase agreements (PPAs) offered a way to claim renewable energy procurement.

SEEING MORE CLEARLY

As digital infrastructure faces mounting scrutiny, especially with AI workloads driving unprecedented energy demand, these conventional approaches are revealing some blind spots. Stakeholders now want more than efficiency ratios – they want transparency on how facilities interact with the broader energy system.

PUE measures the ratio of total facility energy to IT equipment energy, providing a useful benchmark for operational efficiency. A lower PUE means less energy wasted on cooling and overhead. However, PUE says nothing about the carbon intensity of that energy. A highly efficient facility powered by coal can score better than an inefficient one running on solar, but clearly not with a better environmental outcome.

Annual carbon matching helps address emissions but introduces its own limitations. Buying RECs or signing PPAs that cover yearly consumption supports renewable projects, but it doesn't guarantee that a facility is powered by clean energy at any given moment. A data centre might purchase solar credits equivalent to its annual usage yet still draw heavily from a coal heavy grid at night.

Heat recovery, one of the most promising sustainability innovations, can

'What ICFEn adds is real-time granularity and environmental context. It provides transparency on how renewable energy is actually used, hour by hour, and how facilities contribute to system-wide decarbonisation.'

even be penalised under PUE. Exporting thermal energy to district heating networks displaces fossil fuel use elsewhere, but under PUE accounting this looks like increased facility energy consumption, worsening the ratio.

A DIFFERENT APPROACH

nLighten, which operates 30 data centres across Europe, developed the Integrated Carbon-Free Energy (ICFEn) score in collaboration with the Fondazione Eni Enrico Mattei (FEEM). Published under a Creative Commons licence, ICFEn is already being calculated for nLighten's facilities in the UK, Germany and Spain, where scores like 94.61 per cent in the UK exceed regional CFE grid averages over April to June 2025.

ICFEn goes beyond annual averages and efficiency ratios. It measures three components. First, hourly matched renewable electricity, aligning consumption with generation on an hourly basis, revealing how well operations match the clean energy supply curve. Next, heat recovery utilisation – quantifying thermal energy exported to local heating systems, displacing fossil fuel use in the community. Lastly, grid stabilisation contributes, which recognise how data centres support renewable heavy grids through flexible loads, on-site generation and storage. This holistic approach positions data centres as active participants in decarbonisation.

COMPLEMENTING STANDARDS

ICFEn isn't intended to replace PUE or annual carbon reporting. PUE remains valuable for benchmarking efficiency and annual reporting is essential for long-term procurement strategy, investor reporting and alignment with net-zero

'As digital services scale and AI accelerates demand, energy consumption and carbon emissions must be managed with precision and transparency. Existing metrics have served the sector well, but they no longer tell the full story.'

commitments.

What ICFEn adds is real-time granularity for the whole integrated data centre energy context. It provides transparency on how renewable energy is actually used, hour by hour, and how facilities contribute to system-wide decarbonisation. This is particularly relevant as the GHG Protocol moves toward hourly based renewable matching for more forward thinking organisations.

Other metrics like Water Usage Effectiveness (WUE) remain relevant too. Whilst ICFEn doesn't track water use, operators deploying advanced cooling can improve PUE and enhance ICFEn scores through better heat recovery.

DRIVING INDUSTRY ADOPTION

One of the most promising aspects of ICFEn's development is its publication under a Creative Commons licence. By making the methodology freely available, it invites broader industry participation, peer review and refinement.

For adoption to accelerate, several factors will be critical. Operators need access to the data infrastructure required for hourly measurement, such as real-time monitoring of consumption, PPA generation profiles, grid carbon intensity and heat export. Many modern facilities already collect this data – the challenge lies in integrating and reporting it consistently. Third-party verification is also essential,

as independent audits of hourly energy and heat recovery data build trust with stakeholders and align the methodology with established environmental, social and governance (ESG) reporting standards.

Industry associations, policymakers and certification bodies can all play a role by endorsing hourly measurement as a credible complement to existing standards. Regulatory frameworks that recognise real-time renewable matching and sector coupling contributions will further incentivise adoption.

THE PATH FORWARD

The data centre industry's environmental footprint is under unprecedented scrutiny. As digital services scale and AI accelerates demand, energy consumption and carbon emissions must be managed with precision and transparency. Existing metrics have served the sector well, but they no longer tell the full story.

Frameworks like ICFEn offer a new lens – one that measures impact by the hour and beyond the facility's walls. They encourage operators to align consumption with renewable generation in real-time, recover and export heat to benefit local communities, and actively support grid stability as renewable penetration increases. For enterprise customers, investors and regulators, this means access to granular, verifiable data that reflects genuine environmental performance rather than annual averages.

Success will require collaboration. Operators, technology providers, policymakers and researchers must work together to refine methodologies, share best practices and build the infrastructure for real-time reporting. The goal is not to create yet another siloed metric, but to establish a holistic, interoperable approach that complements existing standards and drives continuous improvement.

TIME TO GET REAL

The transition to 24/7 carbon free operations is not a distant aspiration, it is an emerging reality. With the right tools, transparency and commitment, the data centre industry can lead by example, demonstrating that digital infrastructure and environmental responsibility are not just compatible, but mutually reinforcing. ■

FRANCESCO MARASCO

Francesco Marasco is vice president of energy operations and sustainability at nLighten, where he leads the company's energy strategy across its European edge data centre platform, driving innovation in sustainable energy procurement, operational efficiency and integration with local energy systems. He has over 20 years of international experience across the energy value chain, from oil and gas to renewables and distributed energy. Marasco held senior roles at Shell, BG Group and Cube Infrastructure Managers before joining nLighten.

Quick clicks

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

Flexible Data Centers To The Rescue Of An AI-Induced Power Crunch is a blog by Steven Carlini of **Schneider Electric.**
CLICK HERE to read it.

A Brief Evolution Of Field-Terminated Fiber Connectors is a blog by Seamus Hamrin of **Panduit.**
CLICK HERE to read it.

The Smart Building Revolution: Necessity, Drivers and Deployment is a blog by Mike Boisseau of **Siemon.**
CLICK HERE to read it.

The Association for Smarter Homes & Buildings (ASHB) has published its 2025 Smart Building Trends & Technology Adoption document.
To download a copy **CLICK HERE.**

Polarity In High-Density Data Center Networks: Understanding The Growing Challenges In High-Density Fiber Environments is a blog by Keith Sullivan of **AFL.**
CLICK HERE to read it.

Sustainability: Strategy Or Standstill? is the question addressed in a blog by Jonas Güresir of **R&M.**
CLICK HERE to read it.

The Future Will Be Written In Light: Fiber As The Backbone Of The AI Economy is a blog by Vijay Agashe and Jimi Barker of **STL – Sterlite Technologies.**
CLICK HERE to read it.

It's time to get on a le

In this month's Knowledge Bank, Carrie Goetz examines what needs to be done to address the data centre skills shortage

We are seeing a shortage of applicants for data centre jobs and, OK, we partially caused this. For years, we were hush-hush about data centres, as knowing the location of a data centre introduced risk. Little did we know that the real risk years later would be the impact on college programs, skilled trades training, apprenticeship programs and internships.

TALENT SCOUT

When I was updating my book for 2025, a search revealed over 500,000 open jobs with the words data centre in the title on one job board. There is no telling how many open jobs we have supporting our industry across that spectrum of employers. What we do know is that talent shortages are everywhere. What led to these shortages, and how do we rectify the situation?

For starters, it never ceases to amaze me how few educators know about data centres. Educators that teach the trades rarely know about this industry as a career destination for tradesologists working in tandem with technologists. While there are many resources for coding and technology usage, we have very few materials that address where the code 'lives'.

FRONT AND CENTRE

Starting with early awareness, perhaps one of the biggest hurdles we face is that kids decide what they want to be when they grow up by around 7-8 years of age. If we aren't talking to kids about data centres, how will these careers ever be in their purview?

We typically introduce technology to students through early coding classes but what if a student doesn't love coding? Unfortunately, we have found that they often write off all technology based on one exposure, despite the fact that there are 1,000s of jobs that don't involve writing code.

As kids, we hear from our parents that college is the only way to a great career. We tell our kids, and so on. College curriculum development is an extremely slow process that varies from country to country, state to state etc. But if you were to open most college catalogues, you won't see a data centre major. It is easier to build on what exists than to develop new programs. So oftentimes, data centre subjects end up being a capstone project for another degree, if data centres are taught at all.

JOB SEARCH

More often than not, students with other degrees adapt to data centre jobs after graduation. Most have never heard of a

earning curve

data centre when they go on their first interview. If they have heard of data centres, the topic isn't always presented in the best light, either, which is translating to the image our industry has in communities. And this also hurts recruitment.

Some folks enter our workforces through certifications, which for many years supplied the only data centre education available outside of on the job training. To take advantage of a certification pathway, one first needs to recognise an opportunity in the mission critical space and, secondly, visualise themselves in that role. And here we are right back to the exposure problem.

CALL TO ACTION

How do we expect teachers to teach about data centres if they don't know what they are? We need more books and people in schools talking to classrooms, and must normalise talking about data centres. Kids know that digital bits go to the cloud but they don't understand that the cloud is a data centre. Why don't we tell our kids we are sending something to the data centre where pictures (or whatever) are stored?

Lastly, and a bit of a soapbox moment, we must get out of our own way and stop talking about the problem – we have to solve it. We need more apprenticeships. An apprentice becomes productive, on average, measurably faster than a graduate, as their efforts are concentrated on tasks at hand. In the last six years, I have worked extensively with groups to stand-up apprenticeships. Most require an employer sponsor. For less than an employer pays to reimburse tuition for electives or sponsor a trade show and talk about the problem, they can generally start up or participate in an apprenticeship program.

VILLAGE PEOPLE

Consortia of operators and service providers can commit to joint programs that cover the basics. On the job training will always be needed, so use shadow talent for knowledge transfer. Use AI programs that take operations manuals and create standard operating procedure and accountable apprentice training. We need to add data centres to other trade and college programs. In this case, yes, it does take a village – our village! ■

Putting people fir

The UK's aspirations to become a global AI superpower depend on more than infrastructure and investment – they require a fundamental rethink of how we develop talent for the data centre industry. Kalay Moodley of Kao Data explains why

The AI Opportunities Action Plan, launched in January 2025, set out an ambitious vision for the UK to seize a potential £400bn international AI prize. Central to this vision is the goal of positioning the UK as an 'AI maker, not an AI taker' – a nation that develops and exports AI capabilities rather than simply consumes them. Yet amid the discussions about energy availability, grid capacity and regulatory frameworks, one critical success factor receives far less attention than it deserves, and that's the people who will design, build and operate the infrastructure that makes AI possible.

WIDENING SKILLS GAP

The data centre industry stands at an inflection point. The computational demands of AI workloads are fundamentally different from traditional enterprise computing.

Training large language models and running inference at scale requires specialised knowledge that spans electrical engineering, advanced cooling systems, high performance networking and, increasingly, an understanding of the unique characteristics of graphics processing unit (GPU) intensive computing. The skills that served the industry well during the era of general purpose cloud computing are still essential but no longer sufficient on their own.

Industry projections suggest that data centres currently account for around 2-3 per cent of Britain's total electricity demand, with some forecasts indicating this could quadruple by 2030. Meeting this growth requires not only new infrastructure but a dramatically expanded workforce with increasingly sophisticated capabilities.

SUPPLY AND DEMAND

The challenge is that talent pipelines have not kept pace with demand. Traditional pathways into the industry – often through electrical or mechanical engineering backgrounds, telecommunications or IT operations – remain valuable but increasingly need

'Building the workforce that the UK's AI ambitions demand is not something any single organisation can achieve alone. It requires collaboration between data centre operators, equipment manufacturers, technology companies, educational institutions and the government.'

rst

augmentation.

Today's data centre professionals must understand power distribution at megawatt scales and liquid cooling technologies that were once exotic but are now essential for high density AI deployments. They also need to understand the operational characteristics of accelerated computing hardware that behaves quite differently from conventional servers.

This creates both a challenge and an opportunity. The challenge is immediate, as without sufficiently skilled workers, the ambitious infrastructure buildout envisioned in national AI strategies cannot happen. The opportunity lies in establishing the UK as a centre of excellence for data centre skills development, creating a competitive advantage that extends beyond any single technology generation.

RETHINKING TRAINING

Addressing this skills gap requires action across multiple fronts. First, the industry must work more closely with educational institutions to ensure curriculums reflect current and emerging requirements. University engineering programmes provide excellent foundational knowledge but graduates often lack exposure to the specific technologies and operational practices that define modern data centre environments. Industry placements, collaborative research projects and guest lectures from

'The challenge is immediate – without sufficiently skilled workers, the ambitious infrastructure buildout envisioned in national AI strategies cannot happen.'

practitioners can help bridge this gap.

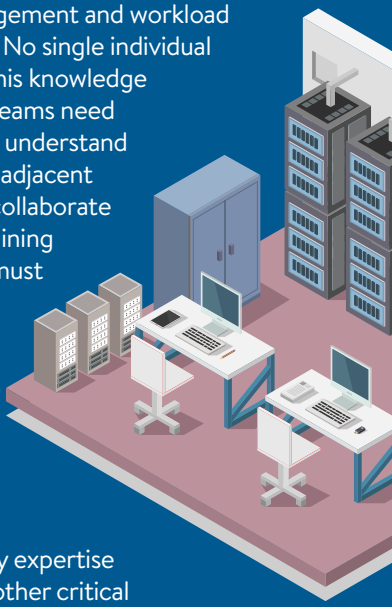
Equally important is the development of robust apprenticeship and vocational pathways. Not every role in a data centre requires a university degree, but all roles require structured training and clear progression routes. The UK has historically underinvested in technical apprenticeships compared to countries like Germany, and the data centre sector has an opportunity to lead a broader renewal of this approach. Apprenticeship programmes that combine hands-on experience with theoretical learning can produce competent professionals while opening doors to individuals from diverse backgrounds.

For the existing workforce, continuing professional development (CPD) becomes essential. The pace of technological change means that skills acquired even five years ago may need significant updating. Operators who built their expertise around air cooled facilities must now understand direct to chip liquid cooling. Engineers familiar with traditional uninterruptible power supply (UPS) systems need to grasp the complexities of battery energy storage systems and behind the meter generation. This upskilling cannot be left to chance – it requires deliberate investment in training programmes, vendor certifications and cross-functional learning opportunities.

INTERDISCIPLINARY IMPERATIVE

Perhaps the most significant shift in skills requirements relates to the increasingly interdisciplinary nature of data centre work. The boundaries between IT and facilities, between electrical and mechanical systems, and between operations and development are blurring. AI-optimised data centres require professionals who can think across these traditional silos.

Consider the challenge of deploying a large scale AI training cluster. This requires coordinated expertise in high speed networking, power distribution, thermal management and workload orchestration. No single individual possesses all this knowledge but effective teams need members who understand enough about adjacent disciplines to collaborate effectively. Training programmes must evolve to develop this broader perspective alongside deep technical specialisation.



Sustainability expertise represents another critical dimension. As data centres face increasing scrutiny over their energy consumption and environmental impact, professionals who understand carbon accounting, renewable energy integration and efficiency optimisation become invaluable. The government's clean power ambitions and net zero commitments create both obligations and opportunities for the sector, but realising these requires a workforce equipped with the relevant knowledge.

WORKING TOGETHER

Building the workforce that the UK's AI ambitions demand is not something any single organisation can achieve alone. It requires collaboration between data centre operators, equipment manufacturers, technology companies, educational institutions and the government. Industry associations such as techUK have a role in coordinating these efforts, developing shared standards for competencies and qualifications, and advocating for supportive policy frameworks.

The government's ongoing AI Growth Zones initiative could serve as a catalyst for skills development and infrastructure investment. Concentrating development in specific locations creates opportunities for education and training ecosystems to develop in parallel, with local colleges and universities tailoring programmes to meet nearby industry needs. This geographic clustering can accelerate knowledge sharing and create career pathways that keep talent growing within regional economies.

MAKING IT COUNT

Ultimately, the UK's ability to compete in the global AI race depends on its people as much as its power supply. The nation has a strong foundation – world class universities, a tradition of engineering excellence and one of the richest AI research communities anywhere. Translating these advantages into a thriving AI infrastructure sector requires deliberate investment in developing, attracting and retaining the skilled professionals who will make it possible. Without this human infrastructure, even the most ambitious national strategies will remain unfulfilled promises. ■

KALAY MOODLEY

Kalay Moodley is chief people officer (CPO) at Kao Data and brings a wealth of human resources (HR) experience, with the last decade focused on the data centre space. Moodley has held HR leadership roles at Interxion, Digital Reality and, most recently, with a stealth start-up within the industry.

Capitoline Training

Capitoline wrote the very first Data Centre Design Course and the first Data Centre Operations Management Course.

We can make you a Certified Designer, Operations Manager, Lead Auditor, Fire Specialist, Cleaning Specialist and more. Our courses are certified and available online on-demand, meaning you can train when and where you want and at your own pace.

Not just a video recording, as provided by others, our courses contain graphics, animation and photographs to make learning easier. Each course has a clear English narrative and comprehensive searchable notes, making it possible to search and skip to topics, or jump forward and backwards.

Outstanding material using a blend of images, narrative and the written word offers a comprehensive learning experience. It's also better and cheaper than others, which is an unusual combination. **Sign up for a three-year subscription by the end of April 2026 and receive a 20 per cent discount by using this coupon code – net20off**

Courses can also be delivered in the classroom and include a subscription to the appropriate online course.

CLICK HERE to find out more and try a FREE data centre training module!
www.capitolinetraining.com

National Data Centre Academy

The National Data Centre Academy is transforming data centre training, with a focus on hands-on, real world learning. Our training environments are crafted for professionals in the data centre industry who want to stay ahead of the curve.

We offer practical experiences that go beyond typical training courses. As a technician, you'll get the chance to dive deep into a real data centre environment, exploring its full potential and understanding all the interactions and dependencies at play. This means when you return to your own data centre, you'll have the latest knowledge and techniques to drive improvements and optimisations. Plus, you'll be confident in how best to apply this knowledge.

At the NDCA, we go beyond the basics, ensuring you gain the skills and experience needed to truly excel in the industry. As an insightful and strategic leader at the cutting edge of industry advancements, we are committed to equipping you with the expertise and forward thinking approach necessary to thrive.

To find out more **CLICK HERE.**
www.nationaldatacentre.academy

Elevate

Elevate your expertise with CPD training. As data centres evolve to meet the demands of high performance computing and AI, staying ahead of technology trends is essential.

Elevate's new CIBSE accredited continuing professional development (CPD) sessions are designed to help professionals deepen their knowledge and sharpen their skills in the white space. Topics include Densification and its Impact on Cooling Technologies and Living with Liquid Cooling, offering practical insights into efficiency metrics, emerging cooling strategies and serviceability best practices.

Whether you're a consultant, contractor or operator, these sessions provide actionable guidance to navigate the challenges of modern data centre environments.

Join Elevate account director, Raul Guerra, for face-to-face training at our London office or **CLICK HERE** to register for online webinars. New dates are added regularly, so there's always an opportunity to enhance your expertise and earn CIBSE credits.

Invest in your development, because the future of data centres starts with informed professionals. To find out more **CLICK HERE.**

www.elevate.excel-networking.com

Networks Centre

Data installers must now complete an approved course or prove competence through an assessment to obtain an Electrotechnical Certification Scheme (ECS) card.

While the Construction Skills Certification Scheme (CSCS) card provides general construction site access and demonstrates basic health and safety knowledge, the ECS card is specifically for electrotechnical roles. This includes data installers.

Networks Centre offers a range of training options through CNet Training and City & Guilds for those who need formal training. For individuals who already have the practical and theoretical skills, the Experienced Worker Assessment is available as a lower cost alternative.

If you need an ECS card and want to understand the options available, along with the advantages and costs of each route, we can offer tailored advice that considers all factors. Other non-installation courses are available including those for designers, project managers and other management roles.

To find out more **CLICK HERE,** call 01403 754233 or to send an email **CLICK HERE.**

www.networkscentre.com

Building the human

Despite the intelligence embedded in today's digital infrastructure, much of the work involved still depends on people. Andrew Stevens of Traverse explains why human judgement, especially under pressure, remains critical

The ability to balance performance and risk in real time, and make decisions when information is incomplete and consequences are real, cannot be automated. This does not call upon abstract skills or theoretical knowledge, it relies on capabilities learned through experience and built over time. However, those valuable capabilities are becoming harder to develop at the pace the industry now demands.

WHEN TRAINING LAGS REALITY

A growing disconnect exists between how digital infrastructure is taught and how it is actually designed, operated, secured and kept resilient in the real world. Formal education pathways are slow to adapt, often locked into curricula designed years in advance.

Assessment still tends to prioritise theoretical understanding and knowledge recall over applied decision making. Graduates may arrive with strong foundations in concepts and technologies, but they have limited exposure to the realities of operating complex, interdependent systems where trade-offs are constant and mistakes carry real consequences.

'People working on live systems must understand not only the technology itself, but escalation paths, safety protocols and the downstream consequences of seemingly small decisions.'

STOPPING SHORT

Professional training can face similar challenges. As platforms evolve and architectures change, content struggles to keep pace. What is taught now may no longer reflect how work is done in

n network

practice, or the renewed pressures teams face in live environments. The result is that learning often stops short of preparing

people for the rapid decisions they will need to make.

Employers naturally fill this gap through onboarding, shadowing and informal knowledge transfer. This works when teams are stable and experienced staff have the time and capacity to coach newcomers. It breaks down when growth is accelerated, attrition is high or technology shifts faster than institutional memory can absorb.

The outcome is familiar across the industry and leads to prolonged periods before new hires can operate with confidence, over-reliance on a small number of senior team members and risk aversion that slows innovation. And, in some cases, early career hires leave not because they lack ability, but because they never quite gain confidence in what good looks like. They gradually lose their sense of momentum and belief that they are making meaningful progress.

This is not a failure of individuals. It is a mismatch between how we train and how digital infrastructure work happens in mission critical environments.

WORK IS SITUATIONAL

One reason this gap persists is that digital infrastructure work is rarely linear.

A technical issue is never just technical, it intersects with customer impact, contractual obligations, security considerations and operational risk. People working on live systems must understand not only the technology itself but escalation paths, safety protocols and the downstream consequences of seemingly small decisions. Operational teams are required to weigh competing priorities under pressure, often with incomplete information and real world constraints.

Learning these things through documentation alone is rarely effective. Manuals and procedures can explain what systems do but they struggle to convey how decisions feel in context. People develop judgement fastest when they can practice decisions in realistic scenarios, see the outcomes of their choices and receive timely feedback while the experience is still fresh.

SEEING CLEARLY

Other sectors have recognised this for years. Emergency services rehearse

‘For mission critical roles, training cannot stop at theory or certification. People need development that reflects real work, real decisions, real pressure and real consequences.’

scenarios repeatedly so that judgement under pressure becomes instinctive. Aviation trains pilots in simulators that expose them to rare but critical situations, while financial services use case-based training to develop risk awareness and ethical reasoning.

The digital infrastructure industry has been slower to adopt similar approaches, in part because the systems involved are complex. But this is precisely why safe, realistic practice matters. When the live environment carries risk, the ability to rehearse decisions elsewhere becomes even more valuable.

CAPABILITY BUILDING

A quiet shift is already underway in how leading organisations think about development. The focus is moving away from course completion and towards evidence of capability. Not simply ‘has this person attended training?’ but ‘can this person do the work, in our environment, to our standards, using our procedures?’.

This reflects a growing recognition that knowledge alone is not enough. Understanding how a system works is different from knowing how to respond when it behaves unexpectedly. Capability is built through context, experience and feedback, while development that mirrors real workflows, decisions and trade-offs accelerates confidence and reduces the gap between learning and contribution. When people can practise key scenarios early, they become productive sooner and make fewer costly mistakes later.

This shift also changes how progression is understood. Clear expectations, realistic benchmarks and visible examples of good performance help individuals understand what readiness looks like at each stage. For organisations, it provides a more reliable way to identify potential, support growth and build resilience across teams.

PEOPLE POWER

The digital infrastructure industry is rightly obsessed with resilience and performance at a systems level. It now needs to apply the same rigour to its people.

For mission critical roles, training cannot stop at theory or certification. People need development that reflects real work, real decisions, real pressure and real consequences – delivered safely, without real risk. Capability in these environments

is built through experience, supported by structured practice and feedback rather than content alone.

This does not replace existing pathways. Degrees, certifications and vendor training remain essential foundations. The gap is what sits between them – translating knowledge into organisation specific operational readiness. It means moving individuals from understanding what should happen to knowing what to do when it does not.

TOOLS OF THE TRADE

Today, purpose built tools and platforms make it possible to tailor learning to specific organisational environments. They allow organisations to shape development around their own technologies, operating models and risk profiles, building the exact skills, judgement and confidence their roles demand. Used well, these approaches shorten time to readiness, reduce reliance on a small number of experts and improve consistency across teams.

The mission critical environments of the future will be run by people who are adaptable, confident and grounded in reality. Organisations that invest in training aligned to real operational demands will move faster, operate more safely and rely less on outdated proxies for readiness.

THINK AGAIN

The next digital infrastructure challenge is not technical. It is human and it is solvable for organisations willing to rethink how capability is built, assessed and sustained. ■

ANDREW STEVENS

Andrew Stevens is a board member and strategic advisor at Traverse. He has extensive commercial acumen, having grown a successful global education business, and he now focuses on empowering other businesses and their leaders to achieve their full potential, driving them to understand and build positive cultures within their workforces.

n2s and NTT Data deliver sustainable decommissioning and circular economy outcomes for Virgin Media O2

n2s has agreed a three year partnership with NTT Data to support Virgin Media O2 across its UK data centre sites, focusing on responsible decommissioning, resource recovery and circular economy integration. The contract will see over 40,000 IT assets sustainably processed to help Virgin Media O2 achieve its energy efficiency and carbon reduction targets.

In 2025 n2s processed more than 33.5 tonnes of equipment, enabling the avoidance of over 322 tonnes of CO_2e emissions through circular economy practices such as reuse, refurbishment and low impact recycling. This new collaboration with NTT Data will extend those outcomes even further.

The Virgin Media O2 contract will also introduce advanced urban mining and bioleaching technologies developed through Bioscope Technologies, n2s's innovation sister company. These pioneering methods recover valuable metals such as copper and gold using natural, low carbon biotechnological processes. It significantly reduces the environmental footprint associated with traditional extraction and refining.

United Infrastructure awarded national maintenance framework by Cornerstone for UK-wide telecoms estate

United Infrastructure has secured a major new framework with Cornerstone. United Infrastructure will become the sole provider of planned preventative maintenance and reactive repairs across more than 16,000 telecoms sites nationwide, including Northern Ireland and the Scottish Highlands and Islands.

The framework begins in May 2026. The telecoms estate underpins mobile connectivity for millions of people, businesses and essential public services across urban, rural and hard to reach areas.

United Infrastructure will work closely with Cornerstone to drive greater operational efficiency, enhancing visibility, streamlining reporting and refining milestone tracking across the network, while upholding Cornerstone's standards for health, safety and secure site access across its telecoms estate.

AECOM appointed to deliver Nostrum's new data centre in southwest Spain

AECOM has been selected by Nostrum Data Centers to lead the design and construction management of a new facility in Badajoz, Spain. With an investment exceeding €1.9bn, Nostrum Evergreen is one of Spain's most ambitious digital infrastructures projects, with capacity expected to reach 500MW, supporting the rapid growth of AI across Europe.

The first phase includes the design and construction of data halls and the critical operational infrastructure, with an initial capacity of 150MWe. The second phase, which will allow the site to reach 300MWe, is scheduled to begin in early 2029. The design will enable scalability up to 500MWe, making it one of the most ambitious facilities in southern Europe. A next generation campus, Nostrum Evergreen will also integrate advanced cooling systems and intelligent power consumption management.

The project, which expects to obtain its building permit by mid-2026, has already secured electrical capacity, without relying on the future Spanish Electrical Grid Development Plan 2025-2030. In addition, it boasts more than 200,000m² of ready to build industrial land in one of the region's most advanced industrial parks. The site aims to position the Extremadura region as an emerging hub in the European data centre ecosystem.

PROJECTS & CONTRACTS IN BRIEF

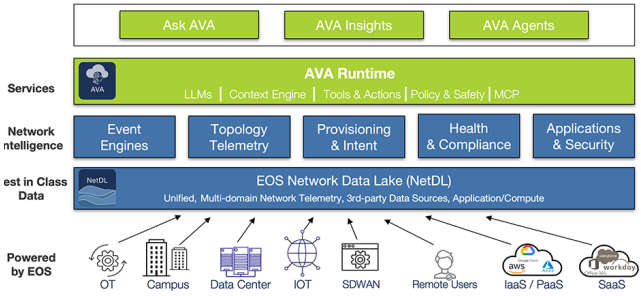
MLL Telecom has been awarded a contract from Hampshire, the Isle of Wight, Southampton and Portsmouth (HISP) Multi Academy Trust (MAT). This is MLL's first contract procured through the DfE approved Everything ICT Framework.

St John Ambulance has partnered with Simpson Associates to harness the power of Microsoft Fabric and advanced analytics. This approach considers modern data architecture and secure platform infrastructure to overcome data silos and join-up data across the organisation.

Inntelo AI has opened a new office in the United Arab Emirates, based at the Dubai International Financial Centre (DIFC) – one of the region's leading hubs for AI and innovation.

Hyperion Renewables has started construction of its first battery energy storage projects in Portugal, in partnership with Omexom Portugal and Saft. Together, the three companies are taking a decisive step towards greater grid stability and the next stage of Portugal's energy transition, bringing the country closer to the energy model that will define the next decade.

Arista Networks



Arista Networks has made advancements to its Cognitive Campus including the introduction of Arista Virtual Ethernet Segment with Proxy ARP (Arista VESPA) for WLAN mobility, enabling customers to deploy large scale mobility domains. Arista VESPA addresses critical scaling limits faced by major enterprises as they experience growth in the number of clients and IoT devices.

The company has also expanded its Arista Autonomous Virtual Assist (AVA), which is designed to further streamline AIOps use cases, as well as key additions to its campus switching portfolio that bring the power, reliability and operational simplicity of Arista's EOS to outdoor environments.

Arista is experiencing momentum in the campus, as customers see the benefit of a single, consistent network experience across all domains including AI and data centre, cloud, campus, branch and enterprise WAN. By applying AI principles through Arista EOS, a unified data lake (NetDL) and now AVA, Arista is helping to unburden customers from vendor silos and tool sprawl, while reducing complexity to deliver a best in class user experience.

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

Motivair by Schneider Electric

Motivair by Schneider Electric has introduced a new, industry leading 2.5MW coolant distribution unit (CDU) that is designed to cool high density data centres reliably and at scale. The MCDU-70 is the highest capacity CDU available from Motivair and presents a flexible and scalable solution for meeting the rigorous demands of next generation graphics processing unit (GPUs).

Utilising Schneider Electric's EcoStruxure software, Motivair's CDUs operate as a centralised system. They meet today's cooling requirements with the ability to scale to 10MW+ for next generation high performance computing (HPC), AI and accelerated computing workloads.

Compact and efficient, the MCDU-70 is the newest addition to Motivair's CDU line. Its capacity aligns perfectly with the needs of large scale facilities, such as Nvidia Omniverse DSX Blueprint, where deployments target 10MW to reach GW scale. At 2.5MW each, six MCDU-70s can provide a 4+2 redundancy for these designs, and the unit's capacity is fit to service Nvidia's GPU roadmap for the foreseeable future.

For more information **CLICK HERE.**
www.motivaircorp.com

Panduit

Panduit's EL2P intelligent power distribution unit (iPDU) is engineered to redefine power management in mission critical data centre environments. Designed for hyperscale, enterprise and colocation facilities, it targets one of the sector's toughest challenges – maintaining uptime while optimising capacity and sustainability at scale.

The EL2P offers high precision metering accuracy of ±0.5 per cent. It delivers granular energy consumption data to support effective capacity planning, Power Usage Effectiveness (PUE) optimisation and sustainability initiatives.

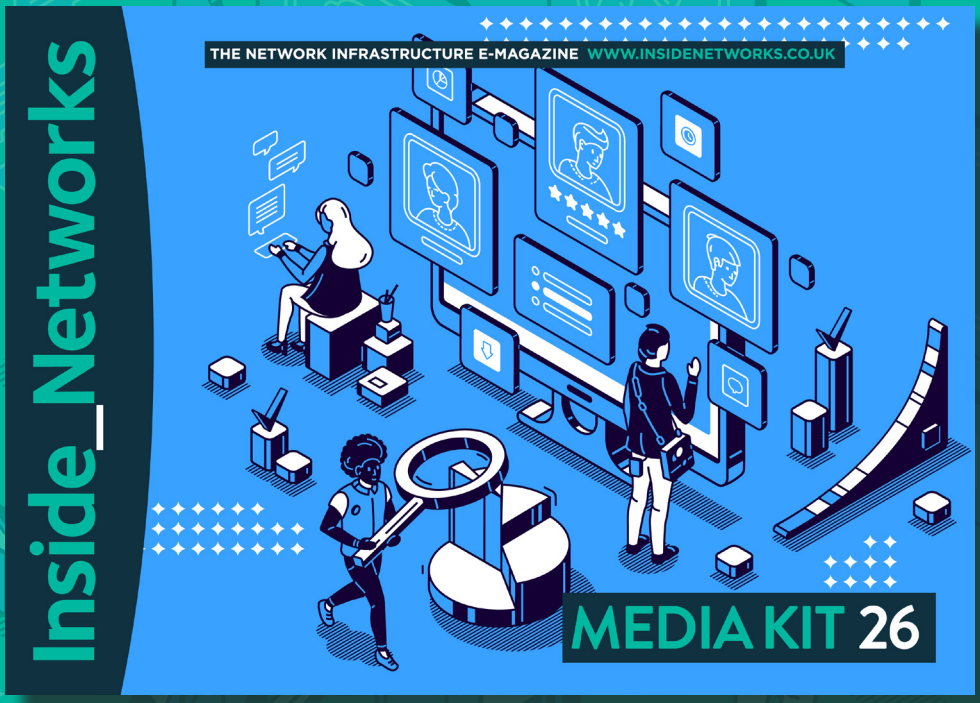
4-in-1 outlets offer maximum flexibility and each outlet can function as C13, C15, C19 or C21, supporting diverse equipment requirements within a single iPDU footprint. Dual Gigabit Ethernet connectivity with daisy-chain support for up to 64 iPDUs on a single IP address further reduces network complexity.

Native Cisco Nexus Dashboard integration provides visibility into energy usage and sustainability metrics across data centre assets, while Redfish and RESTful APIs ensure interoperability with leading data centre infrastructure management (DCIM) and cloud platforms. Secure zero-touch provisioning (sZTP) enables rapid, low touch deployment across distributed sites.

Available in single-phase and three-phase models from 5kVA to 43.5kVA for EMEA, with dual rated approvals, the EL2P combines global compliance with practical deployment.

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

All you need to know



CLICK ON THE COVER TO VIEW THE 2026 MEDIA KIT

Avoiding the pitfalls

Richard Jonker of Netgear explains how to fix the five costly networking failures in small to medium sized enterprise (SME) environments

Slow networks, intermittent connectivity and configuration issues are more than minor inconveniences – they're business risks. In offices and other commercial environments, every minute of downtime impacts productivity, customer experience and operational efficiency, while exposing organisations to heightened cyber risk. An IDC InfoBrief commissioned by Expereo found that over a quarter of businesses worldwide lose more than $5mn each year due to preventable network failures.

KNOWLEDGE IS POWER

For integrators, consultants and IT professionals specifying or managing network infrastructure, understanding the most common pitfalls is key to delivering well designed, resilient and scalable connectivity across any environment. While every network is unique, certain recurring mistakes keep cropping up. Here are five of the most common, and how to prevent them before they disrupt operations.

1. NETWORK SLOWDOWNS

Network bottlenecks or slowdowns are arguably the most visible and immediately frustrating issues in business environments. While a single device streaming a video may not significantly impact performance, a modern workforce with dozens of employees, each using several devices, quickly multiplies the load. Even a well installed network can underperform when demand exceeds capacity. Laptops and smartphones, professional devices, such as barcode scanners, mobile printers and

security cameras, all contribute to traffic, creating congestion if the network isn't designed to handle it.

The usual culprits include legacy hardware such as switches, routers, Wi-Fi access points or cabling that can't cope with modern multigigabit traffic, bandwidth bottlenecks caused by devices running slower than the network backbone and outdated firmware or drivers that hinder performance. Configuration issues also play a role, as do mixed speed networks. And how about degraded cables or ports that cause intermittent connectivity?

To avoid slowdowns, integrators and network managers should evaluate both current and projected traffic loads and consider multigigabit or even 10Gb/s to the desktop capacity in demanding or high density environments. Router throughput should align with ISP speeds to prevent bottlenecks, while firmware and software must be kept up to date across all network devices to maintain compatibility and peak performance. Regular cabling and port audits are also vital. Addressing capacity during planning – not after deployment – ensures consistent performance as organisations scale.

2. CONNECTION DROPS

Few issues frustrate users more than frequent disconnections, unstable Wi-Fi or poor roaming. These problems often stem from predictable causes such as faulty, underpowered or outdated single band access points, or older Wi-Fi standards that can't handle dense device environments. Poor mesh or wireless design can leave access points reliant solely on wireless backhaul and inefficiently shared bandwidth.

Insufficient power over Ethernet (PoE) supply can also cause devices to operate below capacity, while frayed cables, faulty ports or physical obstructions further reduce signal strength. From Apple and Samsung, we learned that the number one source of support tickets for Wi-Fi is roaming issues in higher education, mainly because high density Wi-Fi networks are not configured correctly.

Access points must be fit for purpose and correctly positioned to avoid signal loss. Running coverage and signal strength tests can identify the optimal placement. Wherever possible, wired backhaul should be prioritised to maintain maximum throughput and PoE budgets should be validated, with switches upgraded where necessary, to ensure all devices receive the power they need. Routine inspections of cables and ports help prevent intermittent faults, while monitoring ISP connectivity and maintaining contingency options such as mobile hotspot back-ups keeps users online during external service outages.

Often, the fix is simple – repositioning an access point, replacing a patch lead or adjusting power allocation. However, prioritising coverage and roaming design, power delivery and physical reliability at the outset dramatically reduces downtime and costly service calls later.

'60 per cent of data centre leaders say overprovisioning, which is the allocation of more resources than necessary, still occurs within their data centres. This is because operators often overestimate the capacity needed, due to visibility gaps.'

3. SECURITY VULNERABILITIES

Networks are only as strong as their weakest link. While many organisations focus on firewalls, the greater risk often lies in unpatched firmware, outdated security protocols, unsecured endpoints or inadequate access controls. These vulnerabilities provide easy entry points for ransomware and phishing attacks.

Weak or reused passwords and insufficient segmentation, monitoring or intrusion detection tools also create corporate perimeter weaknesses. End user behaviour compounds the issue, with untrained staff inadvertently exposing networks to malware or phishing scams.

All devices must support and use modern enterprise grade protocols. Multi-factor authentication and zero trust principles should be standard practice to limit unauthorised access. Regular software and firmware updates are essential, as is the use of advanced monitoring tools to detect anomalies and verify endpoints. Continuous staff education plays a critical role, empowering users to recognise phishing attempts and avoid unsafe links.

4. IP ADDRESS CONFLICTS

Even in automated dynamic host configuration protocol (DHCP) environments, IP address conflicts remain a common source of downtime. Overlapping addresses, misconfigured leases or manual assignment errors can disrupt communication across devices and networks. Even a small misconfiguration can take down critical systems or halt internal services entirely. Such conflicts usually occur due to improper DHCP configuration, manual address assignments overlapping dynamic ranges, or incorrect reservations for essential devices, leading to accidental duplication.

DHCP scopes and lease durations should be reviewed to ensure there are no overlaps. IP addresses for servers, printers and other vital devices should be reserved, while network management tools can provide visibility to detect and proactively resolve IP conflicts before they cause outages. Regular audits also guarantee that as networks expand, IP allocation remains orderly and conflict free.

5. DOMAIN NAME SYSTEM (DNS) MISCONFIGURATIONS

DNS issues can be invisible but catastrophic. When DNS servers are misconfigured, or when traffic is improperly routed through firewalls, users can lose access to websites, cloud

applications or internal resources, despite the underlying network appearing to function correctly. The first preventative step is to validate DNS server settings and confirm that firewalls allow DNS traffic to flow correctly. Caching outdated IP addresses or relying on unreliable DNS providers can cause further delays and resolution failures.

Periodically flushing DNS caches removes stale entries that can cause misrouting, while diagnostic tools can help pinpoint resolution problems. Choosing reliable DNS providers is equally important. Reliability underpins both internal communication and external service access, so consistent monitoring and validation of DNS architecture is critical to ensuring seamless connectivity to mission critical cloud applications.

NETWORKS THAT LAST

Networking fails are inevitable but chronic outages are not. The key is to treat the network as a living system, continuously tuned to real business needs, supported by robust hardware and configuration practices, and reviewed and adapted as device counts grow, applications evolve and security threats advance. A thoughtfully designed and proactively maintained network is a strategic enabler and by addressing these five costly pitfalls, it is possible to deliver dependable, high performing networks that drive productivity, customer experience and innovation – instead of slowing it down. ■

RICHARD JONKER

Richard Jonker is Netgear's vice president of business development AV over IP APAC and EMEA, with over 25 years of global management experience in the tech sector.

WE HOPE YOU HAVE ENJOYED

Inside_Networks

COMING UP IN THE

APRIL 26 ISSUE:

SPECIAL FEATURES:

> CONNECTORS AND CONNECTIVITY
> TESTING AND TEST EQUIPMENT

TO FIND OUT MORE ABOUT PROMOTION WITHIN THESE FEATURES CLICK HERE

> ALL THE LATEST NEWS, VIEWS, COMMENT AND ANALYSIS

> THE BIGGEST MYTHS ABOUT DATA CENTRES THAT NEED TO BE DEBUNKED

> HOW PACKETS MOVE AROUND THE INTERNET

> THE KEYS TO SUCCESSFUL COPPER AND OPTICAL FIBRE TESTING

> WHY USING DEDICATED NETWORK TEST EQUIPMENT ENABLES OPERATIONAL EFFICIENCY, COST REDUCTION AND ENHANCED BUSINESS OUTCOMES

> THE ROLE OF ADVANCED CONNECTORS IN SHAPING THE EVOLUTION OF AI AND HPC

> HOW THE REPATRIATION OF DATA BACK INTO PRIVATE CLOUD IS EXPECTED TO ACCELERATE

> MATTHIAS GERBER GOES UNDER THE SPOTLIGHT

> MOVES, ADDS AND CHANGES IN THE CHANNEL

> NETWORK INFRASTRUCTURE CASE STUDIES FROM AROUND THE WORLD

> THE LATEST PRODUCT, SYSTEM AND SERVICE DEVELOPMENTS

FOR A FREE SUBSCRIPTION CLICK HERE