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Digital drain: data centre energy demand to double

The International Energy Agency (IEA) has warned this month that the electricity needed to power the world's data centres could double to 945TWh by 2030, largely driven by AI's surge. There is now a growing concern about how industry can keep up without tipping the scales on sustainability.

"Although there's hope that less power-hungry technologies will develop, from liquid cooling to more efficient inferencing, for example, right now there's no silver bullet. Organisations should look to mitigate against future energy scarcity by modernising their existing infrastructure platforms and reducing space and power demands for their current applications," notes Mat Brown, Technical Lead, Data Centre & Sustainability, Nutanix.

"The technology industry must focus on efficiency to avoid significantly increasing its energy footprint," agrees Gregory Lebourg, Global Environmental Director, OVHcloud. "To some extent, our industry already has a strong pedigree in this - for example, between 2010-2018, the scope of global data centre compute increased by 550%, but energy use in data centres only increased by 6%. However, with the ever-present threat of global warming, it's crucial that we scrutinise every link in the technology supply chain to make sure that we can support today's needs without compromising the world of tomorrow."

John Booth, Technical Director at the National Data Centre Academy, however, suggests a closer look at the sources and methodologies cited: "it is highly doubtful that energy use for data centres will double by 2030, simply due to grid capacity. The UK has approximately 1.5-1.8GW of data centre capacity with some 2GW planned and viable and an additional 2GW planned but lacking either finance, planning permission or a grid connection offer, so by 2050 we 'could' have 5.5 GW of capacity."

The UK currently imports 5-15% of its energy per day, approximately 6GW of capacity, potentially rising to 15GW by 2030 if the above projects are completed. The National Energy System Operator (NESO) is reviewing the connection pipeline (currently 400GW) to remove 'zombie' projects, which should result in the pipeline being reduced by up to 33%.

"We are also investing in fusion and small modular reactors that are likely to come online within the next 10 years, although that depends on the wheels of commerce! This means that we 'will' have plenty of capacity in the future for EV charging, heat pumps and data centres - and largely from renewable energy sources," adds Booth.

Vinny Vaghani, Operations Manager, IP House, agrees that predictions like this often don't account for how quickly things can change: "China has already shown with DeepSeek, it's possible to achieve similar or better AI results using a lot less energy and with lower upfront costs than what we're seeing from some of the big Western players. It's a reminder that early numbers don't always match the longer-term picture. We've seen this kind of shift before; cloud computing and video streaming were both expected to overwhelm the grid, but smarter software, better chips, and more efficient infrastructure ended up making it all work."

Indeed, it's not all doom and gloom: the IEA also predicts that AI will be an essential tool in informing how to manage future energy demand, engineer more efficient data centres and accelerate the development of new, cleaner sources of electricity generation.

"Will sustainability wither on the vines of AI? No, only if we let it - and I do not believe that will happen," concludes Booth. ■

Oxford set to become a digital pioneer with small cell tech

Cornerstone has joined forces with Signify to transform street lighting into a hub for next-generation mobile connectivity. This groundbreaking initiative will position Oxford as the first city in the UK to harness its existing street lighting infrastructure to deliver high-capacity mobile coverage for its residents, businesses, and visitors.

The collaboration integrates advanced small cell technology into streetlight systems, allowing urban infrastructure to evolve into a scalable, multi-operator wireless network. By utilizing Signify's BrightSites solution alongside Dense Air's cellShare platform, Cornerstone is set to empower Mobile Network Operators (MNOs) to enhance mobile services significantly. This innovative approach promises improved connectivity, increased capacity, and better digital services without the necessity for extensive new infrastructure.

Oxford's selection for this pioneering deployment aligns perfectly with the UK government's recent pledge to position the city as 'Europe's Silicon Valley' and to bolster transportation links between Oxford and Cambridge. This initiative not only reinforces Oxford's status as a nexus for digital innovation and smart city applications but also addresses the growing demand for fast and reliable mobile services. The enhanced connectivity is expected to foster local businesses, stimulate economic growth, and improve public services, facilitating everything from remote work to Internet of Things (IoT) initiatives.

The Oxford rollout marks the beginning of a nationwide strategy, as Cornerstone, along with Signify and Dense Air, plans to implement similar small cell deployments in at least two other UK cities by 2025, with further locations anticipated in the future.

"At Cornerstone, we are dedicated to revolutionizing the UK's digital landscape. Our Oxford deployment exemplifies our commitment to working alongside partners to enhance urban infrastructure, stimulate economic growth, and cultivate connected communities," said Pat Coxen,

CEO of Cornerstone.

"By integrating connectivity with street lighting, we're transforming urban digital infrastructure. Our collaboration with Cornerstone and Dense Air will result in scalable, sustainable solutions supporting both 4G and 5G services, ensuring that cities like Oxford remain at the forefront of the digital revolution," said Khalid Aziz, Senior Vice President and Managing Director at Signify's BrightSites.

"We are excited to support this partnership, enabling effective urban connectivity through our cellShare platform. Utilizing small cells creates a sustainable and efficient model for cities across the UK, allowing MNOs to extend their coverage and capacity seamlessly," said Jim Estes, CEO of Dense Air.

Local leaders have applauded the initiative, recognizing its importance in enhancing Oxford's digital framework and fostering economic development.

"This further establishes Oxfordshire as a center for innovation and technological advancement," said Martin Reeves, Chief Executive of Oxfordshire County Council.

"This deployment underscores the critical nature of world-class digital infrastructure for our future and will facilitate smart city applications in areas like transportation and healthcare," said Craig Bower, Director of the Digital Infrastructure Programme at Oxfordshire County Council. ■

New data centre proposal emerges in Iver

A redevelopment initiative aimed at transforming a former landfill site in Iver, Buckinghamshire, into a state-of-the-art data centre has been proposed by Sequence (Iver) UK Ltd. This project, as first reported by the Bucks Free Press, marks a significant step towards enhancing technological infrastructure outside London.

The company has submitted a request to Buckinghamshire Council for an environmental impact assessment, a crucial step in the planning process. The proposed data centre would occupy a 16.5-hectare site located east of the M25, adjacent to Slough Road (A4007) and just south of the existing Iver Substation. Plans reveal that the facility will feature a two-story building encompassing 15,490 square meters, equivalent to approximately 166,755 square feet, and will offer a substantial IT capacity of 48MW. Additionally, the project includes the establishment of a 150MW substation to support its operations.

Historically, the site has been used for waste disposal, adding an intriguing layer to its redevelopment narrative. Sequence (Iver) UK Ltd is a collaborative venture between Astra Partners Ltd and Valore Group, the latter of which has been operational since 2013, involved in various real estate activities including ownership, investment, and operation. Notable entities under the Valore umbrella include Valore Capital Partners, focused on investment management, and Valore Ventures.

While Iver has not been traditionally recognized as a hub for data centre development, it is witnessing interest from major players in the sector. Companies such as Segro, CorScale, and Amazon are also pursuing data centre projects in the vicinity, indicating a growing trend in the area. This surge in development follows the government's recent initiatives to open up additional land on London's Green Belt, particularly aimed at accommodating more data centres. ■

Survey reveals hidden costs prompt leaders to reevaluate software providers

An investigation by AccountsIQ has uncovered troubling trends in the financial software market, revealing that a substantial majority of finance leaders are encountering unexpected costs and price increases from their software providers.

The survey, which gathered insights from 125 Chief Financial Officers and senior finance professionals across the UK, highlights mounting pressures affecting businesses amidst a challenging economic landscape.

According to the findings, a striking 78% of finance leaders reported being taken by surprise by hidden charges. Specifically, 14% of respondents experienced price hikes, while 44% encountered hidden costs, and 21% faced both issues. This level of financial unpredictability is prompting organizations to reassess their software choices, with 81% of those surveyed expressing a desire to switch to alternative financial software providers as a direct response to these pricing issues.

The survey also shed light on perceptions of fairness regarding these price increases. A significant 64% of finance leaders believe that the rises enforced by their current software vendors are unjustified, adding to their frustration and driving the push for change. However, the transition to new systems is not without challenges; 60% of leaders identified lengthy implementation times as a primary obstacle to adopting new financial software.

Despite these hurdles, many finance leaders are exploring alternatives. Over the past year, 57% have considered opting for a more cost-effective solution, and 29% are currently contemplating a change. Additionally, 36% of respondents have either already switched or are actively seeking a new provider, illustrating a robust willingness to change despite encountering difficulties.

The ramifications of soaring software costs extend beyond budgeting for software alone. The investigation found that 41% of finance leaders have been compelled to cut spending in other areas of their businesses to offset the impact of rising software expenses. ■

Lloyds Banking Group modernizes lending with FICO Platform

Lloyds Banking Group has significantly improved its lending operations with the implementation of the FICO Platform, supporting over £7 billion in annual lending.

This move addresses the limitations of its previous, fragmented on-premises system of more than 20 applications. The migration to the cloud, powered by the FICO Platform, allows for real-time data ingestion and advanced analytics, improving lending decisions and operational efficiency.

Early results are impressive, with a 2.5% increase in credit card approvals and a doubling of new-to-bank consumer loan approvals. The platform has also resolved over 50 system limitations and pain points. Crucially, the new system allows Lloyds to effectively integrate new data assets, improving responsible lending and scalability.

"Our previous infrastructure was hindering strategic growth," said Ian Rockliffe, Head of Consumer Credit Risk Transformation. "The FICO Platform allows us to scale to meet customer needs in digital channels and incorporate new data for responsible lending."

Lloyds Banking Group has reaped tangible benefits such as improved loan performance, and increased efficiency across its credit card processes. The company was awarded the 2025 FICO Decision Award for Cloud Deployment, highlighting the successful transformation. ■

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DC constructors cite sustainability factors as key to new projects

Research conducted by Aggreko has revealed that sustainability is a significant concern among data centre construction managers in the UK and Ireland. Approximately one-third of construction managers in the UK and over 40% in Ireland cited the reduction of their projects' environmental impact as a top priority.

The findings are based on data collected from 495 construction managers working in the European data centre sector, including 104 from both the UK and Ireland.

This focus on sustainability comes as the data centre industry grapples with a surge in demand. According to Savills, there is an insufficient pipeline of planned data centre developments scheduled to meet the demand projected through the end of 2025, with the current number of projects needing to increase by nearly 2.5 times.

Moreover, when participants were asked whether sustainability had become more important compared with three years ago, respondents in Ireland indicated that it was valued the most, showing a net importance score of 96%. In the UK, over 70% of respondents also acknowledged an increased priority for sustainability.

The research identified differing motivations for adopting greener technologies: in the UK, legislation was highlighted as the primary driver, while in Ireland, the need to lower carbon emissions ranked highest. However, more than two-thirds of UK respondents and four-fifths of those from Ireland expressed concern that knowledge of legislation at senior levels often fails to translate to on-site implementation, posing risks to compliance in decarbonization efforts.

Regarding the adoption of greener technologies, battery energy storage systems (BESS) were noted by over a third of UK respondents, while a similar proportion of Irish respondents indicated interest in future fuels such as hydrogen or biomethanol.

Despite the apparent commitment to greener practices, significant barriers remain. More than 40% of respondents from both countries highlighted the high costs associated with investing in greener technologies as a major obstacle. Additionally, a quarter of respondents noted that accessing biofuels was 'not easy.' ■

Veeam launches Data Resilience Maturity Model

Veeam and McKinsey have launched the Data Resilience Maturity Model (DRMM) to provide a framework for organizations to assess their data resilience capabilities.

The research behind the model reveals a significant disconnect between CIOs' perceptions of their data resilience and the actual maturity of their systems. While 30% of CIOs believe their organizations are above average, fewer than 10% achieve that level in practice. Over 74% of organizations operate at the two lowest maturity levels, potentially exposing them to significant risk.

The report highlights the substantial financial impact of IT downtime. Global 2000 companies collectively experience over US$400 billion in losses annually due to outages, reputational damage, and operational disruption. Individual companies can face losses of up to US$200 million per year.

The DRMM offers a comprehensive approach, evaluating data strategy, people and processes, and technology to gauge an organization's resilience. It's the only industry model encompassing cyber resilience, disaster recovery, and operational continuity. Key findings indicate that organizations at the highest maturity level (Best-in-Class) recover from outages seven times faster, experience three times less downtime, and incur four times less data loss than those in lower tiers. Furthermore, the model categorizes organizations into four horizons — Basic, Intermediate, Advanced, and Best-in-Class — based on their resilience levels.

Veeam CEO Anand Eswaran emphasizes the critical nature of data resilience, calling it essential for business survival. The DRMM aims to transform wishful thinking into actionable resilience, equipping organizations to prioritize data protection alongside revenue, employees, customers, and brand reputation.

The research, based on surveys and interviews with senior IT leaders, showcases the substantial return on investment (ROI) from data resilience investments. Each US$1 invested can yield between US$3-10 in value through improved uptime, reduced incident costs, and enhanced agility. The model positions data resilience as the second-most important strategic priority for IT leaders, following only cost optimization.

Smarter Testing: How ITCAB Gained 10 Extra Days of Efficiency

In today's fast-paced digital world, expectations for data delivery are accelerating. Whether working with fiber, copper or active networks, professionals must validate installations and troubleshoot problems with speed, accuracy and confidence. Ensuring networks meet high-performance criteria isn't just a recommendation – it's a requirement. Certifying structured cabling to international standards not only guarantees reliability but also helps reduce costly rework and call-backs.

This need for efficiency and accuracy is exactly why ITCAB, a leading contractor in France's low-voltage network services sector, turned to Fluke Networks to help streamline its operations. In a recent case study, ITCAB reveals how smarter testing practices helped its technicians recover up to 10 working days on a single project – without compromising accuracy or standards.

What makes the story compelling is how quickly ITCAB optimized their testing and reporting processes across copper and fiber optic networks. With the Versiv™ Cabling Certification System at the heart of their operations, the team managed to shave 15 to 30 seconds off every single test. On projects requiring up to 10,000 tests, that translates to serious time and cost savings.

ITCAB significantly reduced the time spent on documentation and troubleshooting, leading to better performance and customer satisfaction across multiple high-profile projects.

It's the perfect real-world example of how companies can achieve **more efficiency by smarter testing**. As part of its latest campaign, Fluke Networks is offering major discounts on industry-leading certification, troubleshooting and network testing equipment. These comprehensive solutions are designed to eliminate guesswork, streamline workflows and empower teams to achieve more in less time.

With rising demand for bandwidth and ever-evolving technology, efficient testing, certification, and troubleshooting tools can have a measurable impact on both productivity and customer trust. Solutions that offer end-to-end visibility across copper, fiber and active networks help streamline workflows, simplify compliance, and support better business outcomes. In a competitive landscape, investing in the right tools isn't just about keeping up – it's about staying ahead.

Download the full case study and explore Fluke Networks' limited time offers to see exactly how smart testing can deliver real results.

Employee readiness is crucial for maximizing AI investments

A recent study by Nexthink has unveiled concerning insights regarding employee digital readiness, suggesting that organizations may risk substantial returns on their investments in artificial intelligence (AI) due to a lack of preparation among their workforce.

The survey, which gathered responses from 1,100 global IT decision-makers, revealed that an overwhelming 92% of IT leaders anticipate that the current wave of AI-driven digital transformation will lead to increased digital friction within their organizations. Alarmingly, only 47% of employees currently possess the digital dexterity necessary to effectively adapt to rapid technological changes, and 88% of leaders believe that many workers are likely to feel overwhelmed by advancements such as Generative AI.

As global IT spending is projected to soar to $5.61 trillion by 2025 — with $644 billion specifically earmarked for Generative AI — the study highlights a stark disconnect between this financial commitment and the preparedness of the workforce. Notably, 42% of leaders reported challenges in quantifying the monetary value of their AI initiatives, and 93% expressed a need for improved methods to identify underperforming investments.

"Organizations are spending trillions on IT to digitally transform, but without their people on board, it's a fast track to failure. Too many employees are left grappling with unfamiliar AI tools because they lack digital dexterity: the ability to confidently embrace new technologies," said Vedant Sampath, Chief Technology Officer at Nexthink.

The pace of digital evolution within organizations is quickening. On average, IT leaders expect a 43% increase in the number of applications utilized over the next three years, with two-thirds (66%) reporting the introduction of new tools or platforms on a monthly basis. This rapid change has put significant strain on IT departments, with 69% of leaders revealing that the sheer volume of users makes it difficult to provide adequate adoption support.

The adverse effects of insufficient support are evident across various business functions. The report noted that inadequate application rollouts could lead to reduced productivity for 61% of employees, hinder collaboration for 51%, escalate IT support tickets by 46%, and contribute to overall employee dissatisfaction for the same percentage of respondents.

In light of these findings, IT leaders are prioritizing the enhancement of digital dexterity within their organizations. A remarkable 96% highlighted the need to enhance their ability to accurately identify digital friction among users, believing it is pivotal for the success of digital transformation initiatives. Additionally, the same proportion emphasized the importance of bolstering digital adoption support to assist employees in adjusting to AI technologies, while 95% recognize tailored digital employee experience (DEX) insights as essential for future success.

The research outlined distinct advantages of improving digital dexterity, including faster tool adoption (46%), heightened productivity (38%), and increased innovation (37%). ■

Belfast Distillery Company embraces 123Insight ERP system

The Belfast Distillery Company, renowned for its McConnell's Irish Whisky, has recently integrated the 123Insight ERP system from Forterro into its operations, a strategic move aimed at bolstering business growth and ensuring regulatory compliance.

This initiative comes as the distillery accelerates its activities from the historically significant Crumlin Road Gaol in Belfast. As the company navigates a period of significant expansion, the need for a scalable and unified system to streamline key processes and collate data into a single, user-friendly platform has become increasingly apparent.

"As part of our improvement programme, we needed a solution that would promote transparency, collaboration, and efficiency across all departments," said Joanne Paffey, the Supply Chain Controller at the Belfast Distillery Company.

She highlighted the advantages of 123Insight, particularly its traceability capabilities and its proficiency in managing complex units of measure — functionalities that are essential for businesses operating within the regulated alcoholic beverage sector.

The system contributed to a rapid deployment at the distillery, achieving a transition to the new ERP system within just weeks. This swift implementation was further supported by Forterro's service network and local reseller QMS Insight, based in Carrickfergus, which provided customized, on-site training for the distillery team. In addition, assistance from Solweb Ltd helped in developing detailed reports to aggregate sensitive business data from multiple sources.

Following the transition, the internal response to the 123Insight system has been overwhelmingly positive. Paffey noted that "the feedback internally has been excellent. Colleagues say I make it look easy, but the truth is it's the power and efficiency of 123Insight. It simplifies complex tasks, reduces manual effort, and has a massive impact on productivity."

Tailored for the manufacturing sector, the 123Insight ERP system emphasizes traceability, making it an ideal fit for the highly regulated alcohol production industry. The platform's centralized nature connects various workflows and automates numerous processes, thereby fostering productivity and supporting commercial expansion.

"The Belfast Distillery Company is readying itself for growth and 123Insight is a system ideally suited to its needs," said Laurent Delorme, the Line of Business Managing Director at Forterro. "123Insight empowers teams with real-time access to data and features that enhance traceability, making it perfect for regulated industries such as alcoholic drinks distillation." ■

Word on the web...

Shaping the future of networking with optical circuit switches

Michael Enrico, POLATIS Network Solutions Architect, HUBER+SUHNER

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visit www.networkingplus.co.uk

Building sustainability into the heart of the network

Vivek Gaur, Vice President of Engineering, Colt Technology Services

As the digital economy grows, organisations must consider the environmental sustainability of their digital infrastructure, from networking technologies to data centres.

The total amount of data created, captured and consumed globally is forecast to increase from 149ZB in 2024 to more than 394ZB in 2028. Increasing use of AI, growing video consumption, ongoing digitalisation and a rise in the number of connected devices are contributing to this proliferation of network traffic. Electricity demand from data centres, cryptocurrencies and AI could reach as much as 1,000 Terawatt Hours (TWh) in 2026, compared to 460TWh today.

Clean and renewable power sources may not be able to keep up with this growth in demand. While green energy sourcing is a vital part of any carbon reduction plan, it's time to consider implementing broader strategies for cutting energy consumption. This means building sustainability into tomorrow's network design.

Flexible solutions such as Network-as-a-Service (NaaS) enable enterprise customers to reduce carbon emissions by removing the need to provision 'just in case' bandwidth to allow for peaks in network traffic. Instead, they can use as much capacity as they currently need and dynamically scale their network connections up and down depending on demand. NaaS shifts the responsibility for equipment lifecycle management away from the enterprise to network providers. Operating at scale, they are in a stronger position to keep up-to-date with energy-efficient devices and technologies.

While AI is under increasing scrutiny for its impact on the environment, 42% of the 1500 global CIOs we spoke to recently highlighted the positive contribution AI technologies make towards achieving environmental impacts and governance strategies. The CIOs surveyed cite AI's positive influence in investing in greater network security (cited by 61%); processing more data at the network edge (58%); and using more NaaS capabilities (58%).

Intent-Based Networking

One of AI's greatest strengths is the ability to intelligently analyse huge datasets. This means it has the potential to harness the vast amounts of data that networks and data centres generate and use it to provide a comprehensive analysis of traffic flow, network performance, capacity usage and energy consumption.

Intent-Based Networking (IBN) uses AI and Machine Learning to intelligently automate network management based on business outcomes or intentions. The system takes these 'intents' – such as securely connecting networks on two different sites – and designs, configures, monitors and manages the network to achieve the goal, without the need for manual coding and configuration.

IBN has the potential not only to improve the alignment between the network and the customer's business goals, but to boost energy efficiency, too; a crucial point particularly as organisations must build in transparency to their ESG reporting and comply with ESG mandates. Intelligent network automation is already capable of handling basic troubleshooting, network administration and traffic routing to improve performance without the need to increase capacity. IBN has the potential to reduce power usage by simplifying the network, dynamically optimising its performance, and keeping unused capacity - and the power consumption associated with it - to a minimum. In the future, it's likely that we'll see options to support improved environmental sustainability like automatically routing the network to maximise power efficiency, move workloads to areas where renewable energy is most readily available, and route traffic to areas or times of low demand when capacity is under-utilised and network energy efficiency is low.

Managing energy efficiency

Replacing power-hungry legacy equipment with more energy-efficient versions that support newer technologies can have a significant impact on power consumption. Devices which support dynamic power management are more energy-efficient, as they're able to reduce power consumption during periods of lower demand.

As well as improving the energy efficiency of their own operations, network providers and data centre operators are also under pressure to support the sustainability goals of their enterprise customers. While the drive to make networks more environmentally friendly is challenging, even small changes can have a significant effect. Taking telcos as an example, Deloitte predicts that, worldwide, they will be able to reduce their carbon footprint by 2% in 2025, representing a staggering saving of 12 million tons of carbon dioxide equivalent (CO2e).

Building sustainability into the core of digital infrastructure – and all the architecture that supports it - must be central for businesses to meet ESG goals and to protect the future of our planet. As data volumes continue to grow, power efficiency, transparency, continuous modernisation programmes, and flexible, efficient service offerings will be the foundation of sustainable network growth. ■

War on cybercrime: why disrupting attacker infrastructure is critical for security

Craig Sanderson, Principal Cyber Security Strategist, Infoblox

For decades, cybersecurity strategies have been locked in an endless cycle of reactivity – identifying, containing, and mitigating threats only after they've breached an organisation's defences. This reactive posture often results in the dreaded 'patient zero' scenario, where the first victim serves as the canary in the coal mine – an early warning that comes at the cost of operational disruption, financial losses, and reputational harm.

If it was a country, cybercrime would now be the world's third largest economy behind the US and China, with an estimated value exceeding £6 trillion. This 'success' isn't due to individual attackers breaching business networks, but co-ordinated attacker infrastructure that is leveraged and exploited at scale. The cybersecurity community must shift its focus from detecting individual threats to disrupting the systems that enable them. Malicious campaigns don't operate in isolation – they depend on a vast malware supply chain with an ecosystem of Traffic Distribution Systems (TDS), botnets, and compromised DNS domains to function.

The anatomy of attacker infrastructure

Cybercriminals don't bet the house on a single attack – they amplify their chances of success by operating or leveraging vast, scalable infrastructures designed to automate and sustain malicious campaigns. At the core of this infrastructure is TDS, networks of compromised and malicious domains that dynamically route victims to harmful content. TDS platforms allow attackers to distribute malware, phishing pages, and exploit kits while evading detection by rapidly shifting between different domains. Traditional security measures that block a single malicious domain fail to disrupt these networks because attackers can instantly reroute traffic to an alternative site within their infrastructure. This agility makes TDS a cornerstone of modern cybercrime, enabling everything from credential theft to ransomware delivery at an industrial scale.

Another critical component of this infrastructure is the misuse of DNS as a control mechanism. Every online interaction begins with a DNS request, and adversaries exploit this by using malicious domains, DNS tunnelling, and domain-generated algorithms (DGAs) to control infected machines, exfiltrate stolen data, and deploy additional payloads. DNS tunnelling, for example, allows attackers to covertly send data through DNS queries, bypassing traditional security filters. Meanwhile, DGAs generate vast numbers of domains in real time, making it nearly impossible to blacklist them all manually. Without visibility into DNS-layer activity, organisations are blind to these tactics, allowing attackers to maintain persistence within networks and evade detection for extended periods. Disrupting these foundational elements – TDS networks and DNS-based command-and-control (C2) mechanisms – is the key to breaking the attacker supply chain before threats can escalate.

Threat intelligence can identify the underlying infrastructure that the malware supply chain is built upon. By utilising access to passive DNS data, threat intelligence researchers can apply data science techniques like ML/AI to identify these infrastructures as they are deployed and, in many cases, before it is used in cybercrime campaigns. By identifying and blocking the supply chain that underpins industrial scale malware, organisations can reduce risks and maximise the return on their cybersecurity investments.

The power of DNS

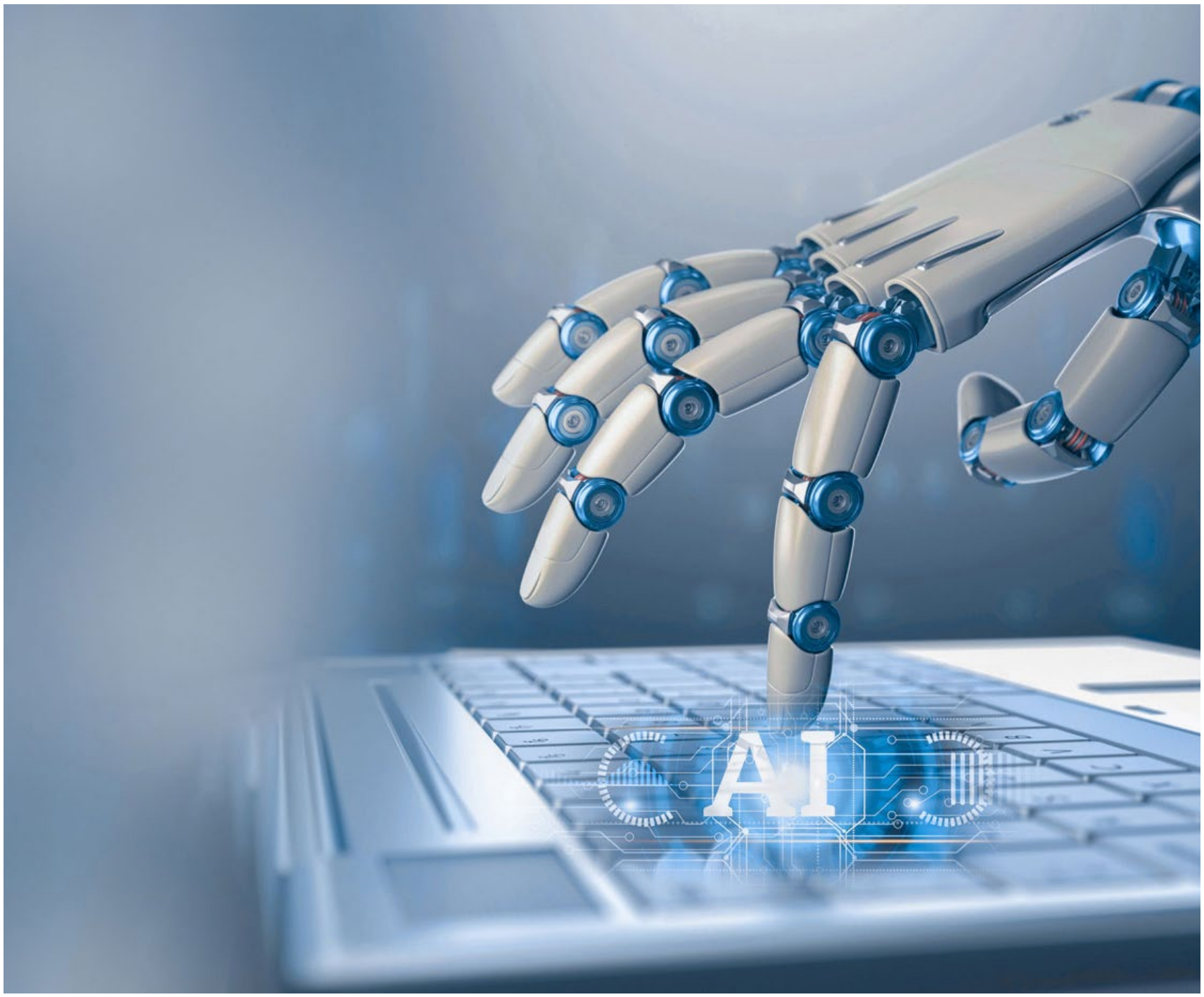
While attackers exploit DNS to scale their operations, defenders can turn the tables by leveraging it as a universal security control point. Because every device, user, and application rely on DNS to connect to the internet, it provides the perfect vantage point for monitoring and blocking malicious activity in real-time. Protective DNS (PDNS) can intercept threats at the earliest possible stage. This prevents not only the initial infection but also disrupts command-and-control communications, cutting off an attacker's ability to issue commands to compromised machines. Instead of being blind, organisations can blind the attackers.

Beyond preventing direct threats, DNS-layer protection also addresses visibility. DNS operates at the perimeter, providing security teams with real-time insights into every outbound connection. This allows organisations to identify suspicious activity earlier – whether it's an infected endpoint attempting to reach a known malware domain or an unusual volume of DNS queries signalling data exfiltration. By treating DNS as a proactive security layer rather than a passive networking function, organisations can disrupt cyber threats before they gain a foothold.

Beyond security

There are also tangible business benefits to this approach beyond security. By blocking threats at the source, organisations can reduce the financial and reputational risks associated with data breaches, ransomware, and operational downtime. Security teams also gain efficiency, as stopping threats earlier in the kill chain means fewer alerts, investigations, and incident response efforts. According to IDC, Security Operations Center teams are experiencing 'alert fatigue', with 56% of organisations receiving more than 1,000 alerts per day. This approach directly addresses the emerging challenge of SOC analyst burnout, allowing them to focus more on proactive security than reactive alert-monitoring.

The reality of 2025's cybersecurity landscape is that attackers move fast, and defenders need to move faster. A proactive, infrastructure-focused security framework is the only way to break the cycle of reactivity that leaves businesses perpetually exposed. By leveraging PDNS as a frontline defence, organisations can disrupt cyber threats before they take root, neutralise entire attack campaigns before they scale, and maximise the value of their existing security investments. ■



Empowering network management teams: the AI advantage

With AI seemingly taking the world by storm, is it having the predicted impact on network management teams, or has progress stalled?

As businesses pivot toward an increasingly digital landscape, the role of network management teams is on the cusp of a significant transformation.

"In 2025 and beyond, while core network environments (data centre, campus, WAN, cloud, hybrid cloud, and the emerging AI centre) remain largely consistent, their management is becoming significantly more intelligent and efficient thanks to AI/ML integration," notes Praful Bhaidasna. Director of Product Management, Arista. "The AI Centre — purpose-built infrastructure designed to support high-throughput, low-latency, and compute-dense AI workloads — is rapidly becoming a distinct and critical environment for AI management. AI and ML are no longer good to have — they are becoming essential enablers of resilient, intelligent, and cost-efficient networks. As the pace of innovation continues to accelerate, AI won't just enhance network management — it will redefine it."

This shift, widely acknowledged as part of the fourth industrial revolution, will be largely driven by advancements in AI.

"Atos believes AI to be the fourth industrial revolution. It's already transforming our work in network management, with more to come," says Sean Wells, Private Sector Sales lead for Atos UK&I.

AI is expected to automate routine tasks, enable predictive maintenance, lower operational costs, and enhance network performance in real time. The implications are profound: network engineers will need to adapt to higher-skilled roles focused on strategic decision-making rather than mere manual operations.

According to Wells, "teams will shift to higher-skilled rather than manual tasks. AI will augment rather than replace human expertise. It's a great time to be a skilled network engineer."

Changing the game with predictive analytics

Across the UK, businesses are racing to digitally improve operations and user experience (UX) and with that comes sprawling, complex IT estates which increases the burden on IT teams. With the proliferation of remote work, cloud services, and complex Zero-Trust based network architectures, there are so many opportunities for blind spots that can lead to poor UX or IT outages if not addressed.

Nic Leszczynski, principal solutions engineer, Riverbed, explains that "AIOps can support stretched IT teams by autonomously monitoring networks. On top of traditional infrastructure-based monitoring data, IT Teams can leverage endpoint-based AI agents that collect a wealth of precious data. From application-aware network monitoring and real-time unified communication performance to Wi-Fi or Thunderbolt performance

insights from the Intel chipsets and more, they effectively add more eyes on digital ecosystems to uncover blind spots and data gaps."

Bhaidasna agrees that "assuming one has a good AI product and the right data being fed to it, the NetOps person's job should be dramatically easier. A NetOps person would need operational awareness to interpret the insights provided by AI and translate them to mitigation steps while also possibly needing to integrate AI-driven network observability into existing, wider workflow automation tooling."

The introduction of methods like Generative AI can enhance incident response capabilities, pinpointing critical concerns faster and putting the necessary expertise into action. Moreover, predictive AI not only identifies current issues but also highlights possible future risks, paving the way for proactive maintenance that can significantly reduce downtime and enhance service delivery.

According to Craig Smith, Technical Account Manager, Highlight, the most valuable implementations of AI for network teams are those that help improve productivity through faster identification and reduction of mean time to fix (MTTF).

"While there's a lot of emphasis on preventive analysis - trying to stop issues before they occur – the current models can't completely prevent failures. Instead, they help flag when the likelihood of failure is increasing, based on historical patterns," notes Smith. "This becomes especially useful when scaled. For instance, if one type of device is showing signs of failure and the organisation has 1,000 similar devices, that insight becomes critical for proactive maintenance planning."

"Beyond monitoring, they can also support by triaging issues quickly, making sure the right team is involved in the problem, and helping solve these issues faster leveraging multiple AI capabilities," says Leszczynski. "Generative AI helps find the needle in a haystack by surfacing potential issues from the data and provide rich insights for investigations. Predictive AI analyses past and current data to spot trouble before it strikes. And Agentic AI can autonomously remediate issues. Ultimately, AIOps can support IT teams in managing and expanding networks required to fuel business growth."

However, Smith believes that the adoption of AI to enhance the efficiency of network management workflows remains relatively slow, with most processes still largely manual.

"Currently, AI is primarily being used by individuals in back-office and engineering roles to support their personal productivity," says Smith. "These applications are typically focused on routine tasks such as compliance checks, inventory analysis, and information summarisation, rather than being fully integrated into broader team workflows. Further, whilst it has been suggested that the potential OpEx reductions of 20-30% through AI-driven automation, the potential efficiency gains are around 30% for an engineer."

The complexity of AI-driven automation

The integration of AI is not without risks. Smith raises concerns about unauthorized changes that may not be trackable, which can threaten operational integrity.

"The risk of data inadvertently crossing into another user's domain is real and raises serious concerns - especially in sensitive sectors such as finance and healthcare - where data privacy and regulatory compliance are critical," warns Smith.

The aspiration for 'self-healing networks' remains a challenge; current technologies, though promising, often fail to adapt network designs dynamically.

"Technologies like SD-WAN have made notable progress in bridging the gap, yet network designs remain largely static. The adoption of AI to proactively identify and recommend changes that could enhance network management continues to be slow and fragmented," notes Smith.

While the promise of AI is enticing, implementing these innovations comes with notable challenges, especially in highly regulated sectors.

Leszczynski emphasizes that "organisations within heavily regulated industries like banking, insurance and healthcare can't afford to have data that's unaccounted for. Data caught up in blind spots and data gaps inevitably won't be as secure as it should be. As regulations evolve to be more stringent around data protection and AI use, it's even more crucial for organisations to have the right foundations and observability in place to ensure data quality and availability."

"AI adoption is inevitable - it's no longer a question of if, but how fast an organisation chooses to move."

According to Smith, when it comes to enterprise and public sector environments where multiple users and customers have varying risk profiles, "a single implementation of AI-driven automation may not meet the requirements of all parties. The risk of data inadvertently crossing into another user's domain is real and raises serious concerns - especially in sensitive sectors such as finance and healthcare - where data privacy and regulatory compliance are critical."

As such, security considerations are critical when deploying AI-driven systems. Organizations must ensure that AI operates within a secure environment, ideally through self-hosted or privately managed cloud infrastructures.

"Using a Retrieval-Augmented Generation (RAG) model is essential to feed AI agents with the specific knowledge required to answer both internal queries and customer questions about the services being managed," adds Smith. "Additionally, it's critical that any system prompts used within AI agents are carefully crafted to ensure they are relevant, ensuring the AI-agent behaves and communicates in a way that resonates with the customer. They must also be trusted, building confidence in the AI's ability to understand and respond to customer needs accurately. Most importantly, ethical considerations must be at the forefront, addressing potential bias and promoting the responsible, fair use of AI technologies."

"Integrating AI-driven automation into network operations brings tremendous efficiency and intelligence. And in regulated environments like enterprise or the public sector, it's a great chance to thoughtfully navigate things like security and compliance — turning potential challenges into opportunities to build even stronger, more resilient systems," says Bhaidasna.

By adhering to these principles, organizations can effectively leverage AI while safeguarding operational security and the trust of users.

An AI-enabled future

As AI adoption accelerates, change management and workforce upskilling are essential for successful integration. The decisive factor in the speed of AI deployment will depend on organizations' willingness to embrace an inclusive approach.

"AI adoption is inevitable - it's no longer a question of if, but how fast an organisation chooses to move," asserts Smith. "If an organisation insists that adoption must be entirely smooth, strictly follow approved change control processes, and be managed by a small, centralised team, then progress will likely be slow, taking anywhere from 6-12 months. For network management teams, the urgency is growing. Those not leveraging AI within the next 4-6 months risk falling behind, and senior management may begin to question why AI is not yet part of the service offering."

Effective adoption, however, requires a cultural change within organizations.

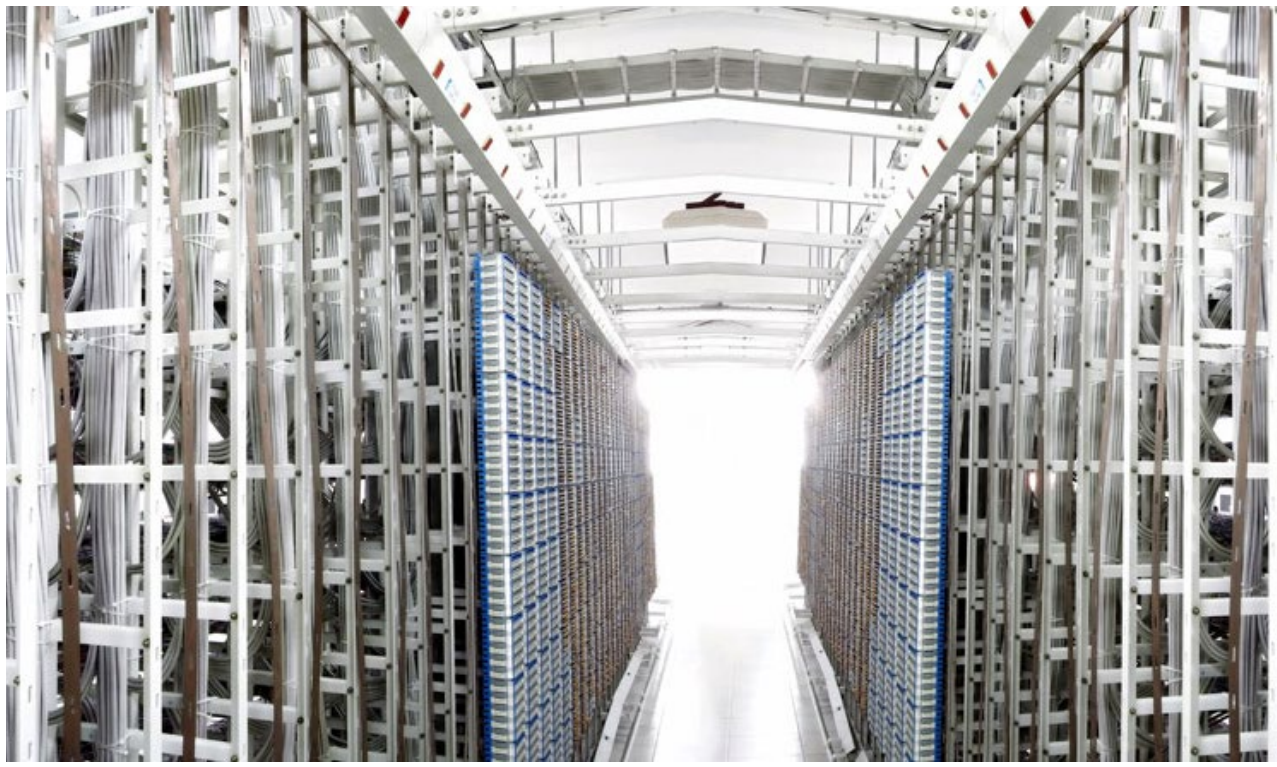
"To streamline AI deployments and drive the most value from them, AI teams help by training people on how to interact correctly with AI tools," recommends Leszczynski. "Educating IT teams about the challenges caused by blind spots and data siloes… is crucial for uncovering them."

Smith believes that the central conundrum surrounding AI in network operations is whether it will augment human roles or replace them – "I see AI primarily as an augmentation tool - an intelligent assistant that enables network operations teams to gain faster insights into customer networks, ultimately improving incident management and reporting. The only area where I foresee full automation is in customer-facing AI assistants, such as those that handle basic queries. These include providing service details, accessing knowledge base information, or offering general help and support. In these cases, AI can efficiently manage routine interactions, freeing up human resources for more complex tasks."

"AI in networking isn't about job loss — it's about job evolution," concurs Bhaidasna. "Engineers and IT teams will shift from being device operators to system orchestrators and experience managers."

"For AI to succeed, it requires an organisation-wide cultural change and AI teams help by training people on how to interact correctly with AI tools to smooth learning and development," adds Leszczynski. "Similarly, AI teams can also support in ensuring the right environment for AI, for instance by educating IT teams about the challenges caused by blind spots and data siloes which are often a consequence of sprawling, complex IT estates and the need for AIOps and observability tools to uncover them."

Ultimately, the roll-out of AI in enterprise network management teams is not just about technology; it's fundamentally about people. As teams evolve, embracing these innovations can lead to unprecedented improvements in operational efficiency and service delivery. It is a transformative period for network engineers, who will find themselves better equipped to handle the complexities of modern network environments. Embracing AI will not only enrich their roles but will redefine the landscape of enterprise network management in the UK. ■



Understanding the real impact of thermal management on GPU reliability

Bernie Malouin, VP, Design, Process and Technology Engineering, JetCool, A Flex Company

The relentless growth of AI is pushing the boundaries of computing power, and at the heart of these advances lies a quiet but critical struggle: keeping the machines cool.

Take Meta's Llama 3 405B, for instance. Over the course of 54 days, Meta's AI infrastructure experienced daily GPU failures. Meta experienced nearly eight unexpected failures a day over this training run, and 58.7% were attributed to GPU failures. Compared with other components (especially CPUs and system memory), it's clear that AI training puts distinctively intense pressure on the GPUs and as a result, they fail.

GPU reliability

When a GPU fails in an AI training cluster, the ripple effects are both immediate and expensive. Industry experts estimate that GPU downtime costs can range from $500-2,000 per hour per node. Beyond direct replacement costs, the operational toll is considerable, including training delays, lost productivity, escalating costs, and efficiency loss: a 1% drop in cluster utilisation across a deployment of 1,000 GPUs (distributed across 125 servers costing $350,000 each) would result in an annual financial impact of approximately $437,500.

These numbers paint a stark picture: GPU failures are not just technical inconveniences — they're financial liabilities.

Temperature fluctuations play a pivotal role in GPU reliability. Meta's experience with performance variations linked to mid-day heat is far from unique. Across data centres, diurnal temperature patterns drive operational challenges. Average daily temperature variations can degrade server performance, while during summer peaks, increased temperature deltas lead to increased fan power consumption. In dense GPU deployments, the problem compounds.

Even with state-of-the-art fans, maintaining optimal temperatures is a formidable challenge.

Traditional air cooling systems, though ubiquitous, struggle to keep pace with modern GPUs. Thermal imaging reveals why: non-uniform heat distributions create hot spots that air simply cannot target effectively. The consequences include localised overheating, thermal stress, and inefficiency.

Extending GPU lifespan

Temperature and reliability are closely intertwined. Research shows that every 10°C reduction in operating temperature doubles a semiconductor's lifespan.

Using direct-to-chip liquid cooling using microjets, GPU temperatures can lower by 30°C compared to air cooling, translating to an 8x improvement in theoretical lifespan. This is where microconvective liquid cooling technology comes into play. By addressing heat at its source, this type of microjet impingement cooling offers a transformative solution of targeted cooling, consistent thermal management, and scalability for AI workloads. For organisations heavily invested in AI infrastructure, these gains are not just technical — they're strategic.

Comprehensive testing of NVIDIA H100 GPUs highlights the significant impact of direct-to-chip liquid cooling with microjets. When evaluating thermal resistance — a critical metric for heat transfer efficiency — air cooling systems lag, with a thermal resistance of approximately 0.122 °C/W compared to significantly lower values achieved by advanced liquid cooling solutions.

Beyond thermal resistance, large-scale AI deployments stand to benefit significantly from reduced energy costs. In a fleet of 2,000 GPUs valued at $33 million, traditional cooling methods can drive annual power costs of around $2 million. Direct-to-chip liquid cooling with microjets provides a more efficient alternative, cutting cooling energy consumption by up to 30% over conventional methods.

By reducing facility cooling demands, this approach lowers operational expenditures, enables scalable AI growth, and minimises the environmental footprint of high-performance workloads.

Even under challenging conditions — such as operation with a 60°C PG25 coolant — advanced liquid cooling ensures GPUs remain safely below throttling limits. This guarantees stable performance in demanding environments, allowing data centres to maintain efficiency while meeting the increasing computational requirements of AI-driven workloads.

A future-ready cooling solution

As AI workloads continue to grow, rethinking cooling strategies is critical for maximising GPU performance and longevity. By transitioning from air to liquid cooling, organisations can ensure their AI infrastructure remains reliable and costeffective, meeting the increasing demands of high-performance computing while reducing operational risk and environmental impact. ■

Neutral ground: how neutral host networks could future-proof UK connectivity

Neutral host networks are emerging as a seriously compelling solution, taking the mess out of mobile infrastructure by offering operator-agnostic platforms.

Neutral host networks offer a stark contrast to the traditional siloed approach of individual operator deployments. Instead of duplicating efforts and hardware, a neutral host acts as the backbone everyone can share.

"Neutral host networks are the Switzerland of connectivity — neutral, inclusive, and ensuring that everyone gets along. Instead of each mobile network operator (MNO) building their own infrastructure (which is expensive, inefficient, and often impractical indoors), a neutral host provides a single high-performance platform that all operators can share," asserts Mikael Lundman, CEO of Proptivity. "For enterprises and the public sector, this means better indoor coverage, lower costs, reduced clutter, and fewer headaches. Compared to traditional models, neutral hosts are faster to deploy, easier to manage, and significantly more cost-effective."

Simon Fletcher, CEO of Real Wireless, elaborates on the financial model: "neutral host networks can be financed by mobile operators or by independent companies – called neutral hosts (NHs). In some markets the MNOs no longer have the willingness to pay for infrastructure, thus NH players may step in to finance the build and have a revenue model that can extract OPEX from MNO fees whose service is carried over the networks, or building owners can be part of the initial financing or support OPEX. The role of the NH is to find the business model that works for the place that the network is installed."

Cracking indoor connectivity

If there's one arena where neutral hosts shine brightest, it's in tackling the headache of indoor signal quality — particularly in Britain's character-filled, connectivity-challenged buildings.

"The UK has no shortage of beautiful architecture — often featuring thick walls, steel structures, and reflective glass. All great for design, but terrible for mobile signals. Neutral host solutions tackle these head-on by deploying robust, high-performance indoor networks. These provide strong, consistent coverage for everyone — tenants, visitors, and guests. And because the infrastructure is operator-neutral, it's inherently more resilient. If one operator experiences an issue, users still have access through others," shares Lundman.

Fletcher points out that the technology stack matters: "increasingly we see interest in neutral hosts providing additional connectivity, perhaps through private networks running over DAS and other infra. The in-building installation naturally reduces the propagation loss through the building walls and should give better in-building coverage and capacity. Some relay and repeater product options are available, but these are going out of favour."

Barriers and balance sheets

For neutral hosts to scale, both commercial alignment and technical integration need to evolve.

And according to our Fletcher, this is where the real grind begins: "judging when an operator may like to have coverage, but the MNO business decides the ROI on CAPEX is not there. So, the NH has a fine balancing act. However, they have various network product options available to them to get the right cost/performance mix. Awareness of the commercial options, not just for the MNOs, but to the wider enterprise and building market will be helpful in increasing adoption."

"On the commercial side, alignment between landlords, mobile operators, and NHs is key. Everyone needs to see the value — and agree on how to split the bill. Ultimately though, it's the tenants who need to experience the value of great indoor connectivity and, directly or indirectly, cover the cost," adds Lundman. "On the technical side, integrating multiple operator systems can be complex, especially as we move toward modern, active indoor systems — which, let's be honest, is clearly the future. This is exactly where a capable NH earns its keep — taking on that complexity and managing it on behalf of the property owners, so they don't have to become telecom engineers overnight."

Moreover, as private 5G networks inch toward the mainstream, NHs could offer a dual role — supporting both public and private networks on the same infrastructure.

"Modern active indoor systems are built to handle both public operator services and private 5G networks — on the same infrastructure. A good NH should tailor the setup to match the needs of the property owner, and in some cases, that means supporting both public and private 5G services simultaneously," says Lundman. "Private 5G is used for secure, mission-critical operations, while public 5G provides seamless connectivity for employees, partners, and visitors. It's not either/or — it's both, running smoothly side by side."

Fletcher sees a variety of options being explored: "the easiest option is enterprise network solutions from an MNO that will also deal with the in-building network. However, then you are locked into an MNO. Not all private solutions will default to 5G, still LTE/4G is an option. In some markets like the UK there is dedicated spectrum (n77) for private which can be helpful."

Regulatory momentum

The UK may not always be first to the party when it comes to tech infrastructure, but it's earning kudos for taking a smart, collaborative approach to neutral hosts.

Lundman notes that the UK is actually something of a shining star when it comes to enabling neutral host models. The development of the JOTS standard — and now the JOTS NHIB (Neutral Host In-Building) framework — shows what's possible when market stakeholders collaborate.

"What's particularly impressive is that it was the UK mobile operators themselves who took the initiative to drive these standards forward. That's not just commendable — it's smart," claims Lundman.

Fletcher points to a balance still being struck: "The NH players would like more freedom to use n77 for public mobile operator MOCN deployment. Ofcom permits neutral hosts to use n77 spectrum (3.8–4.2GHz) for broadcasting public mobile operator network IDs under specific licensing, coordination and technical conditions. They are looking to balance innovation and incumbent protections, going in the right direction gradually, the technical conditions are limiting opportunity at the moment."

The neutral pivot

Looking ahead, neutral hosts won't just supplement operator networks — they'll become the default.

"Some markets (Saudi Arabia for example) regulate tower and neutral host approaches to encourage infra sharing. The creation of the JOTS specification which helps with standardising of the approaches and reduces the time to install and certify a network to carry the MNO network signals," says Fletcher.

"Indoor connectivity is the next major frontier. Traditional mobile operators won't be able to rely on their existing outdoor-focused business models — building and owning dedicated infrastructure — to deliver the seamless indoor coverage that's increasingly expected. Instead, the responsibility will shift toward property owners, who will need to ensure reliable connectivity for their tenants, much like they do with utilities today," adds Lundman. "But most property owners don't have in-house telecom teams ready to take this on. That's where neutral hosts come in. As trusted third-party providers, we'll play a central role in bridging the gap — offering future-proof, operator-agnostic indoor connectivity as a service."

If connectivity is the foundation of digital infrastructure, then neutral hosts may well become its most elegant architecture. With collaborative frameworks like JOTS, new use cases emerging, and real momentum building, the UK seems poised to lead on neutral hosting: not by going it alone, but by sharing the load. ■

Mikael Lundman, CEO, Proptivity

Simon Fletcher, Real Wireless

VoIP for energy companies: a quick-fire guide for success

Jez Pickering, Head of Customer Experience, Nebula

Voice over IP (VoIP) is not a new or unfamiliar concept to those responsible for managing corporate networks or IT decision-makers, but within certain sectors it has been under-adopted. One of the most interesting examples is the energy sector, which often have dispersed workforces, complicated workflows, intense margin scrutiny and a critical need for effective communication.

Since its emergence, increasingly faster internet speeds and more reliable connectivity have made the technology more appealing to businesses. Some of the biggest uptake has understandably been in call-heavy industries, such as hospitality, call centres, healthcare and insurance.

The Copper Switch Off, otherwise known as the ISDN and PSTN switch-off, is an initiative to retire and migrate all landlines to VoIP. In recent years, this has brought VoIP to the forefront of IT and procurement decision-making, and the effects of this announcement continue to rumble on as we edge closer to the switch-off.

As of 2023, Openreach stopped selling copper products and plans to completely retire the network by 2027. Despite the recent deadline pushback, organisations have prioritised migrating to VoIP to future-proof their systems.

If you are still assessing VoIP's upsides, one of the main reasons for the copper switch-off is cost – the sheer capital required to maintain the copper network has become unsustainable, while the lower cost of VoIP for users is certainly appealing to those in charge of the bottom line.

Copper lines are also subject to disruption and signal issues, whereas VoIP offers a more consistent, reliable voice service for multiple numbers through one IP, allowing for call routing and additional functionality.

VoIP use cases in the energy sector

Returning to the energy sector specifically, as a mission-critical industry with staff often out-and-about, voice calls play an important role in keeping teams connected and informed.

Communicating effectively with those in the field, liaising with suppliers on time and communicating with customers in the remotest of locations is why VoIP has become an important addition to an energy company's IT estate.

For large energy providers with global footprints, serving employees and customers seamlessly is a large-scale, highly complex operation. Communicating and connecting power plants and energy generation, regional hubs, call centres and roaming engineers requires significant resources and consistently available services.

Providing great customer service

VoIP also offers benefits to customer-facing roles and engineers responsible for customer troubleshooting. Large call centres field hundreds of calls a minute from customers. Efficiently routing calls to the correct and next available person is key to providing a quality service.

Customers understandably don't enjoy waiting to speak to their energy provider. Additionally, customers could be in situations where they are without power or heating and want the issue resolved as quickly as possible.

Ensuring the call-waiting experience is as pleasant as possible can significantly alter a customer's sentiment towards a brand and the likelihood of positive feedback, which drives loyalty and recurrent revenue.

As VoIP solutions are internet-based, solutions can be connected to analytics and wallboard tools to provide live data on available engineers, reducing waiting times and more accurately fielding calls to the appropriate teams.

If customers call outside of regular hours, call routing can connect them to an alternate operational call centre, send their voicemail to an on-call team or offer the option of in-call messaging to help resolve the emergency quicker.

Resolving infrastructure issues quickly

Away from customer interactions, phone connectivity has long been an issue for engineers working within supply infrastructure. Energy facilities are often in remote areas, making communication to these sites difficult but also essential to keeping systems running. In some instances, traditional connectivity approaches aren't possible or extremely expensive and complex to install.

As many of these infrastructure sites are

mission-critical and discussions are often confidential, the added security of a secure VoIP infrastructure provides reassurance over its traditional counterpart.

VoIP provides cost effective and secure connectivity for remote facilities, enabling teams to update on progress without relying on phone signal. For complex issues, additional assistance can be provided remotely via a secure line, helping resolve issues quicker rather than having additional engineers travel onsite. A reliable signal is also crucial when dealing with mission-critical repairs.

Engineers without a permanent office still need to be contactable, especially those on-call who spend much of their time travelling between customer visits and working round the clock to resolve emergency repairs to essential equipment.

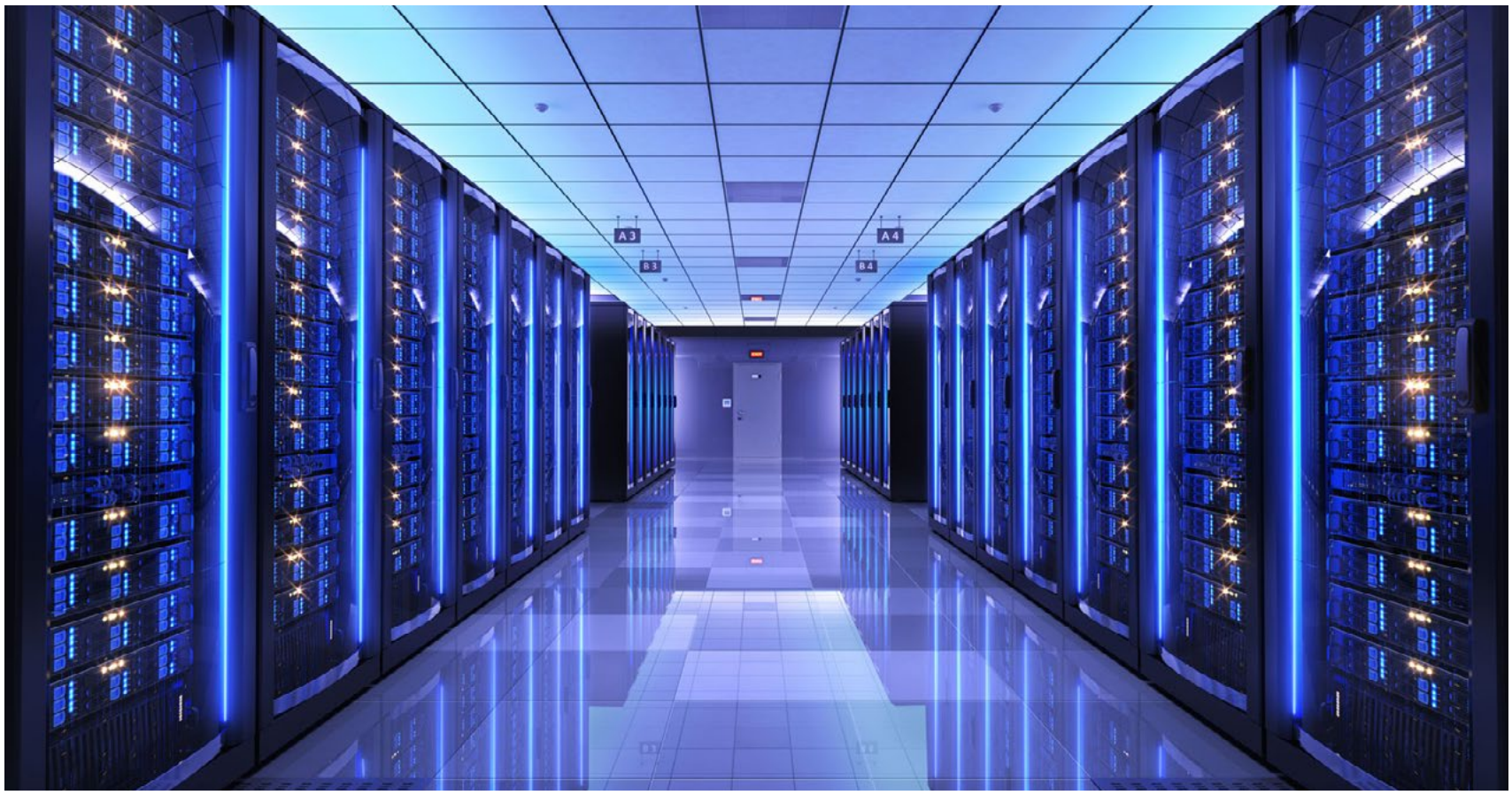
Engineers on-site or travelling can still be connected to a central system, providing real-time data to operational and project teams. With VoIP solutions, engineers can be sent 'voicemail to email' to review, access call logs and answer enquiries remotely, providing quicker updates to support teams who can facilitate the next steps or offer additional support if required.

There are also benefits beyond internal use cases. With consumer energy suppliers looking to diversify offerings, VoIP could be used as an additional revenue stream.

Customers could be provided VoIP as part of a service bundle, creating a more compelling offering for them to stay long-term with the same provider. The same applies to B2B suppliers who are building multifaceted relationships with customers.

Effective communication is key to successfully running any organisation, especially in a mission-critical industry like energy. VoIP's capability to integrate with existing internet infrastructure, service tools, productivity tools and connectivity footprints is another long-lasting benefit that shouldn't be overlooked.

There are plenty of advantages and although migrating systems can feel like a significant undertaking, with the copper switch-off deadline bearing down and financial efficiency once again rising to the top of executive agendas, those in the energy sector should consider future-proofing their voice systems just as it would any other solution. ■



Seamless data centre migration for Northern Care Alliance

The Northern Care Alliance (NCA) NHS Foundation Trust, one of the UK's largest healthcare providers, serves over a million people across four major hospital sites and extensive community healthcare settings in the Manchester area. With 15 petabytes of data supporting critical systems — from Electronic Patient Records (EPR) to pathology and radiology applications — the Trust's IT infrastructure is essential for patient care.

However, with their existing data centre reaching capacity, the NCA faced an urgent need to relocate operations to a new facility at the Royal Oldham Hospital while repurposing its previous North Manchester General Hospital (NMGH) site for another NHS Trust.

This migration presented a high-risk scenario. Any disruption to the data centre could have severe consequences for patient records, diagnostic imaging, and real-time hospital operations.

No room for downtime

Recognising the critical nature of this move, the NCA turned to Covenco. Migrating an entire hospital's live IT infrastructure is far from a routine task. The NCA faced several key challenges, including:

- Seamless fibre channel integration – The new data centre lacked the necessary fibre channel network infrastructure, essential for high-speed data transfers between storage and compute resources.
- Budgetary constraints – A full-scale new IT environment build-out was not feasible, requiring a cost-efficient migration strategy.
- Time-sensitive deployment – The NHS operates 24/7, allowing only a brief maintenance window for migration without disrupting patient care.
- High volume data transfer – With 15 petabytes of mission-critical data, the risk of service downtime, data corruption, or misconfiguration was significant.

"The services delivered by the IBM Storage and Compute layer are critical to patient care in the hospital. It is no exaggeration to say that lives are dependent on their availability," says Imran Bashir, Lead Technical Architect at the NCA.

A phased, high-precision migration strategy

Given the scale and complexity of the migration, Covenco devised a bespoke, two-phase approach that would ensure system integrity while minimising disruption. Rather than the conventional approach of setting up a new environment and gradually transferring data, Covenco employed a hybrid strategy that blended hardware consolidation, real-world testing, and a high-speed transition model.

Covenco's engineers conducted a comprehensive audit of the NCA's existing data centre infrastructure. Working closely with Alex Yusuf, Datacentre Team Lead, the team mapped the Fiber Channel switch design, consolidating outdated, slower devices into newer, high-speed switches to eliminate network bottlenecks.

To pre-empt risks, Covenco created a test bed environment at the Oldham data centre using rental storage arrays and servers. This allowed teams to simulate full-scale data replication over a high-speed WAN connection, revealing the need for additional high-bandwidth fibre optic cabling — a crucial discovery that ensured optimal network performance during migration.

Originally, the NCA planned a gradual, staged migration over several weeks. However, as deadlines tightened, a 'Big Bang' strategy was adopted to migrate both live and disaster recovery (DR) systems within a single week. This approach minimised operational downtime but demanded meticulous execution.

"It is a testament to the Covenco team that they were able to keep the project on track despite the complexity of the data centre and the mammoth tasks involved," says Alex Yusuf, Datacenter System Manager, NCA.

48 hours of precision under pressure

The migration was conducted in two phases:

Phase 1: Disaster Recovery (DR) Migration – The first step involved moving the DR environment, ensuring a stable fallback system at Oldham before the high-risk live migration. This phase was completed smoothly, boosting confidence for the next stage.

Phase 2: Live System Migration – At 10 minutes past midnight on a Friday, the NCA and Covenco teams initiated the migration by shutting down all live hospital services, including EPR, radiology, and core patient applications.

The next 48 hours involved a highly coordinated effort including physical relocation of servers, storage arrays, and network equipment, which were carefully transported from Manchester to Oldham, ensuring integrity. New Storage Area Network (SAN) switches were configured to restore connectivity. Every server-to-storage path was mapped with precision to prevent data access issues. Live data from Manchester's storage systems was replicated at Oldham, ensuring data consistency. Finally, a full-scale system audit was performed to confirm error-free operation before bringing services online.

"I have been involved in dozens of critical projects as the hospital has moved these sites. This was the seventh move of its type. Credit to the Covenco and NCA teams for delivering this project under the greatest of pressures," says Bashir.

A flawless transition

By Sunday evening — well ahead of schedule — the migration was complete. Extensive testing confirmed that all critical hospital services were fully operational, allowing normal healthcare operations to resume by Monday morning.

The move delivered several key benefits including minimal downtime with zero disruptions to patient services; a new high-speed fibre channel network with better performance, efficiency, and scalability; no delays for re-training or adaptations; and a modernised facility with enhanced capacity, security, and long-term scalability.

"Despite meticulous planning, unforeseen challenges inevitably emerged. However, the collaborative spirit between the teams shone through. Engineers worked side-by-side, troubleshooting problems efficiently and implementing solutions with resolute calmness," reflects Alex Yusuf.

The successful migration was not just a technical victory — it had a profound impact on patient care, IT efficiency, and healthcare innovation. IT staff morale was boosted, and patient care enhanced with uninterrupted access to medical records and diagnostics and streamlined treatment workflows. ■

Stepping Hill Hospital adopts 'Wi-Fi First' policy throughout campus

Amidst nationwide digital transformation, the Stockport NHS Foundation Trust's Stepping Hill Hospital identified a high-speed data infrastructure, including a robust Wi-Fi network, as essential for the smooth running of a Hospital and Health Trust: computers, telephones, and medical and clinical devices require a fast digital network to function efficiently.

Given the age of the existing network, an extensive £2.9 million upgrade was required to replace the existing 350 access points with over 1,800 state-of-the-art access points, including 50 external points providing seamless wireless network coverage across the entire site.

Meel Group was thus awarded the work as an NHS SBS Framework supplier.

Minimising interference

"A particular requirement of the Stockport NHS FT team was to create a true partnership approach to delivering the programme," says Chris Hudsmith, Senior Digital Transformation Portfolio Manager, Stockport NHS Foundation Trust. "Building an ethos of collaborative working, removing silos and creating an environment of transparency, the organisations have created a single team, with aligned behaviours and values. This approach has enabled the teams to have open and honest conversations, but more importantly, hold one another to account and ensure the highest possible quality standards are achieved, delivered and maintained."

In the course of the project, several challenges emerged that necessitated innovative solutions. Key obstacles included seasonal access restrictions, which limited availability during certain times of the year, along with bed pressure restrictions that restricted access to available beds, requiring teams to operate within strict parameters. Additionally, ward closures stemming from COVID-19 and Norovirus outbreaks created temporary obstructions to works.

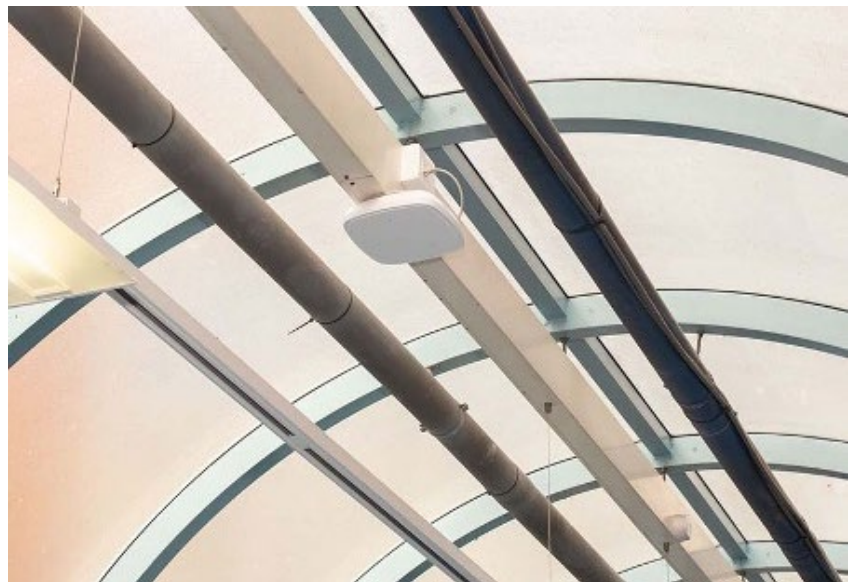
To effectively address these challenges, Meel Group's agile and flexible working approach became paramount. The company established close collaboration with service leads and the Trust, which facilitated the deployment of a 'live-bed' working strategy designed to maximize work opportunities in restrictive areas. This strategic planning allowed the teams to carry out essential tasks with minimal disruption to hospital operations.

To further minimize interference, Meel Group teams frequently adjusted their schedules, often working nights and weekends. This adaptability ensured that hospital functions could continue without significant disruption. Simultaneously, a close partnership with Infection Prevention teams helped us mitigate any risks to patients during our operations. Coordination with cleaning teams was also essential, ensuring that areas were properly prepared for hospital use once our work was completed.

"The project needed to support the Trust's 'Wi-Fi First' policy with Wi-Fi connectivity throughout the campus, increasing the capacity for diagnostic machines to be connected to Wi-Fi within clinical areas and continue to work while moving around the hospital."

'Wi-Fi First'

The project needed to support the Trust's 'Wi-Fi First' policy with Wi-Fi connectivity throughout the campus, increasing the capacity for diagnostic machines to be connected to Wi-Fi within clinical areas and continue to work while moving around the hospital. Indeed, Meel Group designed a robust, modern network infrastructure to accommodate future needs and growth. The network has improved safety and security, and each upgraded data cabinet has UPS battery support.



The project involved working on over 70 cabinet rooms; some required refurbishing, others needed decommissioning and new rooms constructed. Each room was provided with AC, Active Cooling or Ventilation as required. The rooms also contained a UPS (uninterrupted power supply units), fire retarding and security doors.

The project required re-cabling and extending the network as needed, with new Cat6 cables going to all 1,800 Wi-Fi access points. The cabling was held in new containment and tray systems and generally sited above suspended ceilings. Working on a live site often required cabling work to be carried out at night when the hospital was least active.

The seamless coverage utilises new wireless access points conforming to the Wi-Fi 6 standard. The Wi-Fi 6 means faster speeds, increased spectrum, lower latencies and a large capacity of clients per access point.

A true partnership

The successful execution of the project yielded several positive outcomes, in a timely manner. Meel Group also adhered to the set budget, effectively managing resources without compromising quality. Importantly, there were no health and safety incidents, accidents, or near misses throughout the duration of the project.

The implemented system now offers comprehensive and robust coverage across both hospital buildings and external areas, thereby enhancing operational efficiency.

According to Hudsmith, the true partnership approach "has led to the success of the programme, delivering on time, to budget, and eventually providing the enabling benefits associated with the operational and clinical systems of the future. I would personally endorse the Meel Group for programmes of a similar nature and complexity in both a public and private sector setting." ■

How intelligent technology is revolutionising infrastructure and education

Criag Herrett, Managing Director Alliot Technologies LTD & Vadim Lyu, Managing Director UK & Ireland Netmore Group

The Internet of Things (IoT) industry has matured significantly, now providing crucial data-driven insights needed to truly optimize our daily environments. The ability to intelligently manage resources, reduce waste, and predict failures is becoming standard practice, showcasing the tangible benefits IoT can deliver.

The future promises even deeper integration and smarter automation across countless applications. Looking ahead, this deeper integration and smarter automation will unlock even greater potential, transforming how organizations operate. We are excited to be part of this dynamic era of change, and together with partners like Netmore and Alliot, look forward to shaping the future of IoT innovation.

Empowering resilient infrastructure

As the digital landscape grows more complex, critical infrastructure must evolve to meet rising demands for resilience, sustainability, and efficiency. Smart technologies, especially IoT solutions, are central to this evolution. They enable operators to transition from reactive management to predictive and autonomous systems.

By embedding sensors across key assets, organizations can obtain real-time insights into operational conditions, measuring environmental factors, energy usage, and system performance on a large scale. These insights are not merely for monitoring; they form the basis for informed decisions, faster response times, and better allocation of resources.

Predictive maintenance, driven by data analytics, marks a significant shift in infrastructure management. It allows issues to be identified and resolved before they cause failures, reducing downtime and extending asset life. This is more than a technical upgrade; it is a strategic move toward long-term resilience.

Reliable and secure connectivity is essential to this model. As smart infrastructure becomes more distributed, so too does the need for dependable networks that span a variety of environments, urban and remote alike. This is where low power wide area networks (LPWANs) are critical. They provide scalable, energy efficient communication to support thousands of devices across extensive areas.

Ultimately, adopting intelligent monitoring and automation is not about technology for its own sake. It is about building systems that are adaptive, responsive, and ready for future challenges.

Smarter, safer, greener schools

Beyond business and industry, IoT is also reshaping education. Schools are increasingly leveraging these technologies to foster safer, healthier, and more energy efficient learning environments. With dedicated efforts leading the way, smart school solutions are more accessible and effective than ever before.

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In classrooms, IoT enabled systems regulate lighting, heating, and cooling based on occupancy and environmental conditions. This approach creates comfortable learning environments while significantly lowering energy usage. Air quality sensors monitor levels of carbon dioxide, humidity, and airborne particles to ensure that students and staff are breathing clean air.

Security is also enhanced, with real time monitoring and automated access control systems enabling schools to respond swiftly to incidents and maintain a secure perimeter.

Meanwhile, asset tracking solutions assist administrators in managing school resources more efficiently, reducing losses and improving utilisation.

A robust LoRaWAN infrastructure provides the connectivity backbone linking all devices. This is complemented by a complete technology stack, ranging from sensors and gateways to device management platform, ensuring seamless integration into school settings. Deep understanding of educational requirements guarantees that every project is purpose-built, easy to maintain, and scalable for future expansion.

IoT at work: transforming school and campus environments

Across schools and campuses, IoT is driving a new era of smarter, healthier, and more efficient learning environments. Educational institutions are now leveraging real-time data from a variety of sensors to create spaces that truly support student well-being and optimize building operations.

A standout example comes from campuses that have implemented IoT-based air quality monitoring systems. By continuously tracking parameters like carbon dioxide (CO_2), volatile organic compounds (VOCs), temperature, and humidity, these institutions can instantly detect when conditions become less than ideal for working and learning. Automated adjustments to HVAC systems help maintain optimal air quality, while early warning alerts empower staff to take immediate action if pollutant levels rise, ensuring occupants and faculty always have a safe and comfortable environment. Over time, the data collected enables institutions to identify patterns, address recurring issues, and make informed decisions about facility upgrades — all of which contribute to a healthier, more productive experience.

Beyond air quality, IoT solutions are also used to monitor occupancy, regulate lighting and temperature, and even track energy and water consumption. For example, smart sensors can automatically dim lights or adjust heating in unoccupied rooms, significantly reducing energy costs and supporting sustainability goals. These systems not only improve the daily experience for students and staff but also help organizations manage resources more effectively and demonstrate a commitment to environmental stewardship.

The integration of IoT technologies is making it easier than ever for schools and campuses to adapt to the evolving needs of their communities.

The future of smart environments: a technological frontier

As IoT technology matures, the concept of 'smart environments' is rapidly evolving from a futuristic vision to a tangible reality. What's driving this shift is not just the advancement of individual technologies, but their convergence to create interconnected ecosystems that can intelligently respond to our needs.

AI-driven automation enables smart environments to learn, adapt, and make autonomous decisions. Predictive analytics, powered by machine learning, optimizes energy consumption, predicts maintenance needs, and enhances security. Advanced sensor technologies expand the range of data that can be collected, from environmental conditions to human behaviour, enabling a deeper understanding of how people interact with their surroundings and how environments can be optimized to improve well-being and productivity.

The opportunities presented by these technological advancements are vast. From smart homes and buildings to smart cities and industrial facilities, the potential to create environments that are more efficient, sustainable, and responsive is limited only by our imagination. As the technology continues to evolve, we can expect to see even more innovative applications emerge, transforming the way we live, work, and interact with the world around us. ■

Top tips for LAN cable testing

Nigel Hedges, Application and Technical Specialist, Fluke Networks

Whether you're installing copper or fiber, every LAN cabling project hinges on one thing: reliable test results. As networks demand higher speeds and clients expect zero issues post-installation, the margin for error in the field is shrinking fast. Forward-thinking teams are turning to smarter workflows and more capable test equipment to streamline their jobs and deliver consistent, certified, performing results.

Improving your LAN project

Leverage cloud services for successful project management: Project managers have the deepest knowledge of projects but can't be on-site for every step. Leveraging advanced cloud services can allow project managers earlier, easier access to the project in all phases, while simultaneously improving the efficiency and accuracy of the project as a whole.

Tester configuration: Correctly configuring a tester involves setting up test parameters, standards, and inputting complex cable IDs, some more than 50 characters long. Even small typos can invalidate results or create confusion during documentation and handover, which can be costly.

By using a cloud platform, the project manager can create and configure the project remotely, eliminating many of the human errors that can occur when setting up in the field. The project manager can define all test parameters, such as cable types, limits, and certification standards, and make them immediately available, along with the cable ID lists, for the field technician's tester.

The technician simply downloads the project to their tester and begins work. Because the information is already loaded, there's no guesswork and no need for manual data entry in the field. This dramatically reduces the probability of errors, ensures that every test meets the correct standards, and saves time for both the technician and the project manager.

Uploading results for monitoring: Additionally, as technicians work, they can upload results regularly. Project managers can track progress in near real time and catch issues early, before they become expensive callbacks.

Documentation: Accurate documentation is essential for accountability and future troubleshooting. A cloud service that automatically captures installation data, test results, and key details reduces manual errors and keeps everything consistent. PMs and clients can access records anytime. If issues arise later, clean, searchable documentation can drastically cut resolution time.

Test and certify fiber links as you install: Fiber is becoming increasingly common in LAN infrastructure, particularly in enterprise environments, data centers, and large campus networks. But fiber comes with its own challenges. It's more fragile than copper and more susceptible to contamination, making early testing and certification critical to project success. Testing fiber efficiently requires versatile equipment.

One tool for both types of tests: It's not enough to just test fiber continuity. You also need to certify that the links are clean, intact, and performing to specification, from day one. That means using equipment capable of both Optical Loss Testing (OLTS) and Optical Time Domain Reflectometer (OTDR) testing, together with evidence of connector end-face condition. Having all three capabilities in the same device not only saves time and space in the field, it also ensures consistency in how tests are performed. Technicians can run comprehensive diagnostics without swapping tools or changing workflows midstream.

User-friendly interface: Equally important is choosing a tester with a clear, user-friendly interface. A well-designed interface helps field technicians stay focused on the test itself, not the tool, and reduces training time for new users. Intuitive navigation and clear results visualization can make a real difference in both productivity and accuracy.

Remote configuration: Fiber testing setups can also be defined and distributed remotely. The project manager can preconfigure the test parameters like standards, limits, ID conventions, connector types, and procedures, and transmit them to the technician's device. That level of control helps maintain consistency across teams and sites, even when working with multiple connector types and topologies.

Final thoughts

As LAN cabling projects grow more complex, the margin for error is shrinking. Fortunately, the tools available today are smarter than ever, especially when project managers and field technicians take full advantage of their remote configuration, real-time monitoring, and multi-function testing capabilities.

Whether you're working on a high-speed copper backbone or installing fiber in a sprawling enterprise campus, success starts before the first cable is even connected. Digitizing and standardizing your setup process and using versatile, user-friendly test equipment saves time, reduces risk, and allows your team to certify with confidence. ■

PRODUCTS

The **TRENDnet** TC-NT2 Network Cable Tester is a versatile and user-friendly tool designed for testing and troubleshooting network cables. This compact device is ideal for IT professionals and technicians who need to ensure the integrity of network infrastructure in both residential and commercial environments.

The TC-NT2 is capable of testing various types of cables, including twisted pair cables (Cat 5e, Cat 6, Cat 6a) and coaxial cables. It features an easy-to-read LCD display that provides clear results of cable testing, allowing users to quickly identify any wiring issues such as open circuits, short circuits, miswiring, or split pairs. Its built-in wiremap function enables users to verify correct wiring configurations, making it a reliable option for maintaining high-quality network installations.

One of the standout features of the TC-NT2 is its remote unit, which allows for testing cables from different locations without needing direct access to both ends, making it especially useful for long runs. The device operates on a 9V battery, ensuring portable usability, and its robust housing protects it from field use and damage.

The **Tempo** PA1574 LAN Cable-Check is an efficient network cable tester supporting various cable types, including twisted pair cables (Cat 5, Cat 5e, and Cat 6), making it suitable for a wide range of networking applications.

Equipped with an easy-to-read LED display, the PA1574 provides quick and clear results, allowing users to identify wiring issues such as open circuits, short circuits, crossed pairs, and miswiring. This capability is vital for ensuring that cable installations meet performance standards and operate effectively within networking environments.

The Tempo PA1574 benefits from a built-in wiremap function, which confirms proper wiring configurations, helping to eliminate common installation errors. The device also includes a remote unit, allowing for testing of longer cable runs from different locations without needing direct access to both ends, enhancing convenience during installations. Powered by standard batteries, the PA1574 is lightweight and portable.

The **Klein Tools** VDV526-100 Network Cable Tester supports various cable types, including twisted pair cables (Cat 5, Cat 5e, Cat 6) and coaxial cables, providing versatility for different network environments.

Equipped with an easy-to-read LCD display, the VDV526-100 offers clear visual feedback on cable testing results. It can quickly identify wiring issues such as open circuits, short circuits, miswires, and split pairs, ensuring that any cabling problems are promptly detected and rectified. This capability is crucial for maintaining high standards in network installations and troubleshooting.

The Klein VDV526-100 features a built-in wiremap function which allows users to verify wiring configurations, thus preventing common mistakes during installation. The device includes a remote unit, enabling testing over long distances without needing direct access at both ends of the cable. Powered by a standard 9V battery, the tester is lightweight and portable, making it easy to carry to job sites.

The **Tenma** 72-2665 Network Cable Tester is designed for network engineers and technicians to test and diagnose Ethernet cables. This device is compatible with a variety of cable types, including twisted pair cables (Cat 5, Cat 5e, Cat 6) and is essential for ensuring a reliable network connection.

The 72-2665 features a simple yet effective LED display that provides clear visual indications of the cable's status. Users can quickly identify wiring issues such as open circuits, short circuits, crossed pairs, and miswiring, which aids in troubleshooting and ensures that installations meet performance standards. With its built-in wiremap function, this tester allows users to confirm the proper wiring configurations to avoid common installation errors.

One of the key benefits of the Tenma 72-2665 is its compact design, making it portable and easy to use in the field. The tester comes with a remote unit that enables testing of cables from different locations, which is particularly helpful for long cable runs. Powered by standard 9V batteries, it offers robust performance without requiring complex setups.

The **Amprobe** LAN-1 LAN Cable Tester is a user-friendly device that supports various cable types, including twisted pair (Cat 5, Cat 5e, Cat 6) and can also test coaxial cables, making it suitable for a range of networking applications.

The LAN-1 features a clear, easy-to-read LED display that provides fast feedback on cable status. It can swiftly identify common wiring issues such as open circuits, short circuits, miswires, and split pairs, ensuring that cables are correctly configured for optimal network performance. This diagnostic capability is crucial for maintaining high-quality installations and troubleshooting any connectivity problems.

A key feature of the Amprobe LAN-1 is its wiremap function, which allows users to verify wiring configurations and eliminate common errors during installation. Additionally, the tester includes a remote unit for testing cables from a distance, facilitating the verification of long cable runs without needing direct access to both ends.

Powered by standard AAA batteries, the compact design of the Amprobe LAN-1 enhances its portability.

Please meet...

Helen Näslund, Sector Sales Representative, Aggreko

Who was your hero when you were growing up?

Growing up, my hero was Swedish writer, Astrid Lindgren. Her characters, such as Pippi Longstocking, were created to be strong, fearless and wonderfully independent while also being compassionate, courageous and just.

Beyond her brilliant books, Astrid was a passionate advocate for children's rights and education as well as animal welfare. These values made her more than just an author to me – she shaped how I viewed the world both as a child and how I see it today. It is due to this that she remains my childhood hero.

What was your big career break?

While I didn't have a singular career break, I have been incredibly fortunate to work under many managers who believed in me. They opened up opportunities to me that shaped my career and offered steady support whenever I needed it. I hope to do the same for the next generation and be an inspiring mentor.

What did you want to be when you were growing up?

A dolphin trainer! They have always fascinated me as a species due to their intelligence and playfulness. Dolphins feel magical due to the connection they can develop both with other animals and humans. Alas, I found myself working in a less water-based environment (liquid cooling aside!)

If you could dine with any famous person, past or present, who would you choose?

I would want to dine with journalist Caitlin Moran due to her wit and ability to tackle serious issues with humour. She has such a fascinating personality, and I believe the stories she could tell would be brilliant. It is due to this that I feel like our dinner would be equal parts hilarious and deeply inspiring.

What's the best piece of advice you've been given?

Two pieces of advice stand out:

1. "Don't worry about how people perceive you. Their perception of you is a reflection of their own reality, not yours."
2. "It's nice to be important, but it's more important to be nice."

If you had to work in a different industry, which would you choose?

I would love to explore industries were I could make a meaningful impact on people's lives, such as law or journalism. It would be amazing to give people a voice while fighting for justice or telling the public stories that need to be heard.

The Rolling Stones or the Beatles?

Definitely the Beatles. When I was little, their music would always be playing at home, so their songs have been the soundtrack to so many memories. Whenever I hear one of their tracks, it takes me back to those warm and familiar moments from years gone by.

What would you do with £1 million?

To start with, I would take my family on an unforgettable journey across the globe to experience different cultures, visit new places and create magical memories. It would be brilliant to do that with my children and show them the world.

Upon our return, I would invest the remaining amount to secure my kid's future as well as donate some to the charitable causes I believe in. That way, it would have a positive impact on others as well as myself.

Where would you live if money was no object?

I would want to live somewhere warmer than Sweden but still have access to beautiful snowy mountains. Ideally, I would want to be in a location that has warm sunshine but still close enough to enjoy winter sports. This could be Italy or France due to them having both.

What's the greatest technological advancement in your lifetime?

Artificial Intelligence (AI) has been a huge technological advancement that I have witnessed go from development to implementation into day-to-day life. It has transformed the way we live, as well as how we work. AI has unlocked things that we never thought possible – including a new Beatles song!

What is truly exciting is that Artificial Intelligence is still in the early stages of its development. As a result, in the coming years, it could have a significant impact on various sectors such as healthcare, education and sustainability.

It feels like we are currently living in the middle of a technological revolution – only the future will tell its true impact. ■