ENHANCING AND IMPROVING DATA CENTRE SECURITY Peter Dempsey, Axis Communications, looks at the benefits of physical security technologies for data centres to improve security and transform operations for greater resilience and efficiency.



Peter Dempsey has spent 25+ years in the security sector undertaking various roles that have seen him take responsibility for key elements of mission critical, high profile projects across a number of different vertical markets. For the last two years Peter has focused his attentions on how security technologies best support a business's security strategy, whilst driving the adoption and elevating the importance of cybersecurity and emerging technologies for physical security practitioners in the Data Centre vertical. As the Industry Liaison Manager for Axis Communications, Peter has been instrumental in driving the Axis strategy for Data Centres across Northern Europe and the wider EMEA region. Peter's passion for Data Centres can be traced back to the huge success in Ireland with Hyper Scale and Multi-Tenant Data Centre (MTDC) deployments over the last number of years, the key to this success was his commitment to deliver a reliable sustainable solution that delivers every time and that will mitigate any downtime.

he growth of cloud services and hyperscale computing means that more people than ever before are relying on the sheer power and capacity that data centres provide. And consumption of data is growing rapidly as a result of modern behaviour patterns.

On 4th April 2020, research found that 50,000 years' worth of media was livestreamed on one day in the US alone. Advancements in artificial intelligence, the advent of 5G, video-on-demand and an ever-increasing number of IoT devices only add to the challenge.

Indeed, 2020 saw a maturing of the data centre landscape in response where a two-tier provision is possible with remote sites used for archival storage and smaller higher performance facilities delivering immediate response closer to conurbations. In addition, they have shifted from an IT support system to a scalable on-demand service to enable business and whole economies to keep working and stay connected.

Yet, as data centres grow and are increasingly spread out, monitoring operations and guaranteeing high levels of security can prove challenging. Personnel are under increasing pressure to guard against threats both physical and cyber in nature. Any disruption to

operations could prove catastrophic, with periods of downtime having significant cost implications and causing massive disruption to the people and businesses that now rely so heavily on this seamless transfer of data as part of day-to-day living. It is therefore essential that appropriate tools and technologies are put in place to provide comprehensive, overarching protection, and that such solutions are fully scalable as data centres continue to expand and evolve.



cameras, thermal cameras and radar to detect movement at or near the site, tracking intruders that are approaching on foot or in a vehicle, and even detecting drones within the vicinity. Automated alerts and alarms can be triggered through network speakers to deter potential criminals. Speakers can also be used by operatives to address intruders directly in real time. Security teams and/or the police can be automatically informed of any event detected by the system. Such technology, driven by powerful analytics, has high levels of accuracy, resulting in fewer false positives and

A five-layered approach to site security

smoother operation. Our five-layered

approach covers perimeter, premises,

racks, using network enabled security

resulting in a truly intelligent solution

that offers comprehensive end-to-end

protection. Detecting and resolving

incidents becomes straightforward,

and the potential to apply a range

of cameras and sensors will give

operatives complete peace of mind.

Axis network video and audio helps

centre by utilising video surveillance

protect the perimeter of the data

products with edge-based analytics,

buildings, server rooms and server

Axis' integrated video and audio

solutions can be employed to

protect data centres and ensure

At the premises, access control systems using video surveillance as a second factor of authentication, are employed at all entrance points to identify, authenticate and authorise,

subsequently representing cost savings.

Any device that is left vulnerable could be compromised, either by inside threat-actors or those attempting to gain access from outside. Axis addresses these issues by continually hardening cybersecurity on devices with firmware upgrades, updates and maintenance tests. Axis' network solutions offer encrypted communication, IP address filtering, secure boot, and signed firmware to ensure that cybersecurity is not an afterthought, but something that is factored in right from the start. Power consumption is also high on the agenda for data centre managers who will be looking at ways to demonstrate greener credentials, a critical factor when choosing which provider to select. AXIS Zipstream technology reduces the overall energy consumption of its

with facial recognition analytics also used to manage entry to buildings, rooms, and even individual server racks. Network audio can also play a role in protecting against crime from internal sources, with alarms and alerts triggered by network cameras monitoring for unusual activity within the data centre's many buildings. Such activity might include a server rack being accessed without authorisation, staff members acting suspiciously or attempts to access controlled areas at unexpected times.

Cybersecurity and sustainability

With so much data at stake, having a system that is highly secure but also fully scalable as the data centre grows is absolutely imperative. surveillance systems, lowering bandwidth and storage requirements by an average of 50%. In addition, Axis cameras are equipped with edge analytics capable of processing video data within the device itself without the need to continually transfer video across the network for analysis, reducing bandwidth and power consumption. Finally, AXIS Lightfinder technology delivers superior forensic detail even in almost complete darkness, limiting the need for lighting.

As a signatory to the UN Global Compact, Axis is a trusted provider of physical security solutions and a champion of sustainability and ethical practices. It is ideally positioned to help the modern data centre secure its assets and protect its premises while also meeting its operational requirements and sustainability targets. A partnership with Axis is a step towards a smarter, safer world.

1. https://www.infinera.com/blog/are-you-part-of-the-4-comma-club/tag/optical/
2. https://on24static.akamaized.net/
event/26/52/12/7/rt/1/documents/resourceLis
t1601294964064/99821008210sustainability
report451researchen211601294962692.pdf

Learn more about Axis' solutions for data centres:

https://www.axis.com/en-gb/solutions/ solutions-by-industry/data-centers

About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, and audio systems. Axis has more than 3,000 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Founded in 1984, Axis is a Sweden-based company listed on the NASDAQ Stockholm under the ticker AXIS. For more information about Axis, please visit our website www.axis.com.



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