

How to use different brand video devices with your video management system



Nowadays to save costs by making full use of old devices while upgrading the old security projects, many integrators or installers prefer to use video management software to manage multiple brands of video devices (such as IP cameras, and NVR), instead of only one single brand. So that they could have more flexible choices to earn profits while saving costs.

On other hand, with market segmentation and specialisation, instead of managing the video by themselves, application service providers of different industries prefer video surveillance companies help them to collect the video from various brands of front-end video devices.

Thus they could focus more on application development according to the characteristics of different industries. Therefore to meet the requirements of the surveillance market, how to manage multi-brand video devices has become very important, especially for third-party video management software companies. Then how to manage multi-brands video devices

(such as IP cameras, and NVR) with your VMS system?

The first step is integration: (Preparing your system for video devices integration)

There's more to integration than just the ability to plug in a video device. Does your VMS allow you to take advantage of the latest IP camera and other video device technologies? Does it support open architecture? Closed architecture systems offer limited integration. Selecting an open architecture VMS system allows for a deeper, seamless level of integration, and allows you to upgrade hardware at your own pace. It also allows you to expand your suite of security solutions in the future, as your needs change.

Choosing a VMS system

And these questions also need to be considered when choosing a suitable VMS system:

- Does your system support multiple protocols to communicate with video devices?
- Can your system easily integrate the pri-

vate SDKs provided by the IP camera manufacturers?

Make sure the communication between multi-brand video devices (such as IP cameras, NVR) and your video surveillance VMS system happens.

ONVIF Protocol

Nowadays most renowned video surveillance manufacturers support the standard ONVIF protocol, which enables VMS systems to easily access their video devices (such as IP cameras, and NVR). Some will provide protocols like RTSP, HLS, HTTP-FLV, and Websocket. Some will provide their private protocols like EHOME/ISUP protocol and DHOME. And protocols such as GB/T28181 and GA/T1400 are very popular in China.

Simple and easy integration

As for the VMS system, the more protocols it supports, the easier it becomes for it to communicate with the front-end video devices. Thus it will make the whole process of integration simple and easy.

Video surveillance manufacturers who only provide the SDK, an open architecture of the VMS system is needed because that will help it to communicate smoothly with other interconnected devices and systems.

The next step is management

Once the commu-



nications between the edge devices and the VMS system is established, they can then access, capture, and collect the video data from the network video devices (both live and recorded). They then store that on dedicated data storage media (on-premises, external locations, or in the cloud), based on automated policies pre-

determined by the organisation.

But if the edge devices are different, or they are using a different format, bitrate, and resolution. For example, one brand of IP camera uses H.265 and 4K resolution, and the other brand of IP camera uses H.264 and 1080P resolution, then how can a VMS system manage

them together?

Video transcoding technology

This requires the VMS system to have efficient video transcoding technology to convert different video formats and resolutions into unified video formats and resolutions, and strong video transmission technology to meet low bandwidth network adaptability.

Smooth streaming automatically adjusts bit-rate and resolution between the VMS system and front-end devices according to real-time network conditions. For example:

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Dear Reader

Everything is getting smart. From televisions and cars to buildings and cities, as technology is becoming the basis of existence of all things today. How far will managers and users experience real benefits from smart things will depend on how effectively they leverage integration between functions which are currently separate.



Integration is becoming the objective, reducing the number of components and building intelligence and enhanced capabilities into the devices that we use has been the main trend driver in the past few years; our smartphone is just an example. Apart from using it for banking, shopping, and entertainment, in security, we use it to monitor cameras and control our home lighting. So, what stops us from using it for mobile access control? After all, the phone is always with us, we even carry it to our bathrooms!

Access control has come a long way since keypads and card readers, and will only continue to evolve. Keyless technology is fast becoming the predominant contactless access control solution. This is thanks to the advent of smartphones. IHS Market estimates that by 2023, 120 million mobile credentials will be downloaded as we see more businesses move away from traditional options such as key cards and fobs. If you're buying a new access control system make sure it will support mobile credentials now, or in the future.

In the era of pandemics this prospect has become even more appealing. Businesses now have a more sanitary, hands-free method of gaining access. The benefits don't just stop there, however. Mobile access control is fast, flexible, and cost-effective.

How does contactless mobile access control work? This cutting edge technology is very easy to grasp with users able to download security credentials directly to their smartphone. This can be done by clicking a link sent to them by the access control operator. These credentials are checked by a mobile-capable reader which relies on either a Bluetooth, Wi-Fi, mobile, or NFC connection. Access is then granted or denied. This evolution in access control allows users to carry a key on their phones without the need for costly cards or key fobs. It also contributes to the reduction of plastics in the environment. One can simply take your mobile phone and wave it in front of a reader to gain access through a door!

A new employee or contractor can be added to the system ahead of their arrival. As an extra layer of security, multimodal or multi-factor authentication can be used in tandem with mobile credentials. This can require a PIN or biometric data such as a fingerprint. This is mandatory in some industries such as oil, gas, data centres and power plants.

Unsurprisingly, mobile access control is continuing to show an increase in uptake among businesses. HiD reports that last year, more than 50 percent of companies have upgraded to mobile access, and many are in the process, or have plans to deploy mobile access in the near future. This marks a large increase over previous year's statistics, which showed that only 31 percent of companies were at the same stages of deploying mobile solutions. In 2022, there's already a growing push towards phasing out legacy physical security in favour of more secure contactless solutions, not only to boost convenience but protect businesses from potential credential cloning, and reduce their risk to security exposure. One also saves on the hassle of card issuance and management, as well as the costs involved. And, very soon we will have access credentials loaded onto our wearable devices such as Apple watches, adding to our convenience.

Till we meet next month, Stay Safe and Keep Others Safe.

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SECURITY UPDATE is a focused educational publication on protection technology, products and solutions. It reaches the business community of manufacturers, distributors, dealers, installers, integrators and consultants of security, fire and safety systems. Printed monthly as a lightweight tabloid, it is easily carried and read on the move, reaching the remotest corner of India, even where the internet may not have reached!

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Printed, published and edited by G B Singh on behalf of

1st Academy of Security Science Education & Training Pvt. Ltd.

Printed at Ask Advertising Aids Pvt. Ltd.

88 DSIDC Sheds, Okhla Indl. Area Ph-I, New Delhi 110020

Published at "Security House", 24-B, Udyog Vihar-V, Gurugram 122016, Haryana, INDIA.

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Abloy Oy and ASSA ABLOY Global Solutions launch the jointly developed - new ABLOY Keyless Access Controller



Abloy Oy and ASSA ABLOY Global Solutions have announced their jointly developed, new ABLOY Keyless Access Controller. With the controller, businesses can upgrade their doors to be keyless - making most electric locks and other electronic door locking devices work with a digital key on a mobile app, instead of a physical credential. The new controller not only works with ABLOY products, but also with hardware of any brand using compatible wiring.

The ABLOY Keyless Access Controller is an ideal solution that con-

ceals the locking mechanism and manages access without a physical key. Relying on continuous power, this small device is optimally installed inside a cabinet or behind a door and is, therefore, difficult to manipulate from the outside. The controller is operated with the ABLOY mobile app on the user's mobile phone over a Bluetooth Low Energy (BLE) connection.

The device is compatible with numerous electric lock types, such as electromechanical, electric, magnetic, motor and cabinet locks but also with alarm systems, door strikes, latches, actuators as well as automatic or manual garage, sliding and roll-up doors, gates and lifts. Relying on a continuous power supply, the compact controller is designed to be installed inside a cabinet or behind a door.

The controller is the latest extension to the ABLOY portfolio of keyless access solutions for professional use. Used in combination with other locking products available, it brings more access management options to different operating environments.

The controller expands the solution range of two product families, tailored to the different needs of critical infrastructure on the one hand and more conventional business on the other:

- The ABLOY BEAT controller is ideal in critical infrastructure protection, in sectors such as water, energy, telecom, transportation and logistics.

- The ABLOY CUMULUS controller is designed for commercial real estate and public spaces. These include parcel deliveries, cash-

in-transit, office spaces and construction, for example.

The controller can be managed with ASSA ABLOY Global Solutions' CIPE Manager, ABLOY OS INCEDO or by integrating with a third-party system. The solution offers well documented application programming interfaces (APIs) and mobile software development kits (SDKs) for easy integrations and partner solutions.

The controller tracks usage and records opening and locking events automatically. The records can be accessed in the management system used by the organisation. Both controller versions will become available in stages in selected markets globally, by regional ABLOY Critical Infrastructure and ABLOY sales units, respectively.

Brivo Access brings anomaly detection technology to identify suspicious events



Brivo - a pioneer in cloud-based access control and smart building technologies - announces the release of anomaly detection in its flagship access control solution, Brivo Access.

Anomaly detection is a patent-pending technology that uses advanced analytics with machine learning algorithms to compare massive amounts of user and event data to identify events that are out of the ordinary or look suspicious, and issues priority alerts for immediate follow up. With anomaly detection, business leaders can get a nuanced

understanding of security vulnerabilities across their facility portfolio and take action on early indicators of suspicious user behaviours that may otherwise go unnoticed.

"With anomaly detection, Brivo is incorporating the latest data and machine learning technology in ways never before seen in physical security," said Steve Van Till, Founder and CEO of Brivo.

"Along with our recently released Brivo Snapshot capability, anomaly detection uses AI to simplify access management by notifying customers about abnormal situations and prioritising them for further investigation. After training, each customer's neural network will know more about traffic patterns in their space than the property managers themselves. This means that property managers can stop searching for the needle in the haystack. We identify it and flag it for them automatically."

Anomaly detection's AI engine learns the unique behavioural patterns of each person in each property they use to develop a signature user and spatial profile, which is continuously refined as behaviours evolve. This dynamic real-time picture of normal activity complements static security protocols, permissions, and schedules. In practice, when someone engages in activity that is a departure from their past behaviour, anomaly detection creates a priority alert in Brivo Access Event Tracker indicating the severity of the aberration.

This programmed protocol helps organisations prioritise what to investigate. As more companies roll out hybrid work policies for employees, most businesses are poised to see a lot of variation in office schedules and movement. For human operators, learning these new patterns would take a tremendous amount of time, particularly analys-

ing out-of-the-ordinary behaviours that are technically still within the formal bounds of acceptable use.

With anomaly detection in Brivo Access, security teams can gain better visibility and understanding as the underlying technology continuously learns users' behaviours and patterns as they transition over time.

The release of anomaly detection continues Brivo's significant investments in Brivo Access and AI over the last year to offer building owners and managers more comprehensible, actionable insights and save time-intensive legwork. With a comprehensive enterprise-grade UI, real-time data visualisations, and clear indicators of emerging trends across properties, organisations can secure and manage many spaces from a central hub. Anomaly detection is now available in the enterprise edition of Brivo Access.

Videx Security introduces their new vandal resistant digital IP panel range, the 4514 series



The manufacturer and supplier in access control and door entry kits, Videx Security, introduced its new vandal-resistant digital IP panel range, the 4514 series. The 4514 compliments the existing Videx IP system offering a digital call panel which is ideal for larger installations, capable of calling up to 5,000 apartments, making it the access control solution of choice for both private and public sector apartment buildings.

James Gray, National Sales Manager at Videx said: "Our new digital IP intercom is perfect for those larger installations where there are more apartments than the functional panel is capable of or there is a need for a digital panel with large graphical LCD display and voice annunciation which aid the caller to contact an apartment easily."

"There is also no set limit to the number of entrances and the system can utilise an existing network structure if required. Also integrated into the panel is a built-in proximity reader allowing up to 10,000 proximity key fobs to be stored and a coded access facility for up to 10,000 codes."

Available in both a vandal-resistant 4000 series style and full vandal resistant with stainless steel bezel flush back box, the digital panels are manufactured from 316 grade, 2.5mm thick brushed stainless steel

and come with the option of an alpha-numeric keypad (A-F) or name search and scroll facility keypad (both back lit). Custom-sized panels are also available to offer even more flexibility to the installation.

All models include a large 128x64 pixel graphical LCD display which is back lit blue providing clear visual messages that can be displayed in multiple languages for the user of the system. The integrated H264 camera offers excellent picture quality especially when used with our 7" touch screen monitors. The panels can be powered either by POE or a 12Vdc supply. Also available is a Wiegand output (allowing connection to third-party access control systems that also use this protocol) plus a serial RS485 interface for future use with other devices.

Advanced features such as RTSP to stream the video from the camera and HTTP for third-party integration are standard along with full SIP integration (including direct SIP for use without a SIP server) to allow the digital panel to be used with third-party telephone systems and similar scenarios.

James added: "The panel also includes a speech board annunciation that advises the user on the progress of a call, programmable times and settings, and a built-in wide-angle H264 colour camera with six white light illumination LEDs that provide the best quality picture in any lighting condition. Features that prove very useful and convenient for local authority, housing associations and private developers where an easy to install customisable solution is required."

Inner Range's 2FA among enhancements for powerful entry level inception

The Inception integrated access and security system may be the entry-level product. But

Inner Range gives it the same love and attention when it comes to updates and enhancements as the

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- Integrate with CCTV cameras
- Programmable outputs for lights & other automation
- 20 independent calendars to schedule automatic events
- Remote control the system via web/mobile app/call/sms
- Detailed reports pinpointing the individual device
- Door lock control with RFID card
- User friendly keypads with control segments

APPLICATIONS:

HOMES, OFFICES,
BANKS, FACTORIES,
BOARD ROOMS,
LABS, R&D CENTRES,
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The latest version of Inception supports two-factor authentication, usually known as 2FA. This means operators have to present their usual name and password, as well as an additional time-based one-time passcode (TOTP) by using Google's Authenticator app, or another compatible app. The use of 2FA provides another layer of security and means that even if credentials are stolen, a rogue user still can't gain access.

Inception can also automatically import new user data from CSV files in external systems, such as booking or payroll. These are uploaded to the Inception controller, while user credentials can also be manually added, updated, or cancelled based on existing information in another system. This helps reduce valuable time and resources in creating and updating credentials.

The Inner Range LAN Ethernet bridge module provides a convenient interface for connecting RS-485 LAN

modules to an Integrity or Inception controller via a standard TCP/IP network.

Key Features of the LAN Ethernet bridge module are:

- Connect RS-485 LAN over TCP/IP Ethernet network
- Compatible with Integrity and Inception
- Communicates directly with controller – no master/slave configuration
- Reduces configuration requirements
- Heavily reduces hardware requirements
- Allows RS-485 expansion via IP infrastructure
- Over-The-Wire firmware upgradeable

- AES 128-Bit Encryption

- The remote configuration included via Ethernet LAN configuration tool

More benefits

- Inception offers powerful access and security, perfect for single sites and small businesses.

- It requires no software and is easy to programme, test, and commission.

- It comes with Grade 3 intruder detection to European Standard EN50131 as well as offering extra functionality, such as automated lighting, heating, and air conditioning, and the ability to integrate with biometric credentials.

GJD launches the GEM external curtain detector to protect properties against crime



The GEM is a wired outdoor PIR curtain detector with up to 12m selectable detection range. Its versatile design means it can be positioned to look across windows, doors, balconies or the entire length of a house, office or property wall. Featuring a narrow invisible curtain beam, the GEM is highly effective in protecting properties against crime.

One of the main advantages for the Security Installer is that two GEM units can be fitted back-to-back. This will provide longer distances, reduced cabling and ultimately cut down installation time. Designed with front and rear tamper sensors, if the detector is tampered with it will instantly trigger the CCTV system and notify the designated user.

The GEM is supplied with a customisable "T" bracket for narrow beam applications. An additional swivel bracket can be purchased for applications that require a customisable pan and tilt angle. If the GEM is mounted on a T-Bracket or a swivel bracket the tamper will still activate if vandalism occurs.

The GEM provides outstanding detection reliability. It is IP65 rated and has temperature compensation, making it suitable for outdoor use including extreme environments.

Commenting on the new product, Chris Moore, GJD's Technical Product Manager said: "The GEM is aesthetically pleasing, it is available in white so that it discreetly blends into

most PVC windows and doors. The GEM provides precise and accurate detection to protect both properties and people against crime."

The GEM has a switch-selectable detection range, adjustable sensitivity and LED indication on/off options, all of which make it easy and fast to programme, saving engineers time and stress. Other benefits of the GEM are that it is low voltage, can be used in many different applications and has a two-year warranty.

Key features

- Narrow PIR curtain lens
- Adjustable detection distance can be programmed at 3m, 6m, 9m or 12m
- N/C volt free contacts for alarm
- T Bracket provided Swivel bracket available to order
- IP65, Suitable for outdoor use
- Temperature compensation for extreme environments

ONVIF standard and built-in visitor management among enhancements for Inner Range's Integriti intelligent access and security system



Access control manufacturer, Inner Range has announced a number of enhancements to its flagship product - Integriti, including meeting ONVIF standards and providing built-in visitor management capabilities.

Integriti is Inner Range's enterprise-level intelligent access and security system, and the company's R&D team is constantly working on improvements to improve safety and ease of access for customers.

From July 2022, a new update is available for new and existing customers, which includes making Integriti an ONVIF product. This means operators can connect ONVIF standard IP CCTV cameras directly to Integriti, without the need for a network video recorder or video management system (VMS) for basic tasks, such as live video streaming, event monitoring and exporting current frames. Integriti

can also now integrate with MOBOTIX HUB cameras, and an existing interface with Milestone has more advanced options for operators.

Another development allows basic visitor management to be carried out directly within Integriti via a dedicated interface. Default properties and permissions can be set up for different types of visitors, making it easier for users to create suitable credentials, and manage current visitors on site. This is available for Integriti customers with 'business' or 'corporate' software options.

Other enhancements include being able to create QR code credentials for visitors directly within Integriti, without the need for a visitor management system, as well as new integrations with STid Bluetooth door readers and Dormakaba wireless locks.

Tim Northwood, the Director of Inner Range, said "As a manufacturer,

our R&D team is constantly exploring new ways to make our systems easier and more efficient for operators to use, providing a slick and hassle-free experience for workers, residents and visitors, all while maintaining high levels of security."

He adds, "These latest enhancements will give all customers more choice in how they manage access and security, as well as offering some cost and resource savings where additional third-party systems are no longer required."

Inner Range systems have been installed in over 30 countries, offering trouble-free access and smart building management for local sites as well as national and global estates. Customers include hospitals and high-security units, colleges, distribution centres and pharmaceutical companies, government and critical national infrastructure.

Adams Rite launches DL100 wireless deadlatch with Aperio wireless technology



Adams Rite is expanding its product line with the introduction of the DL100 wireless deadlatch – an advanced, aluminium-style electrified deadlatch with Aperio® wireless technology.

Ready for retrofit, renovation or any commercial project with an existing MS® door prep, the DL100 combines electrified locking hardware with an access control system in standard aluminium-style doors. It easily interfaces with other access control elements to extend real-time security cost-effectively to more openings.

The DL100 uses low-energy motorised EcoLatch® actuator technology for silent operation and provides a MultiCLASS SE contactless card reader that supports 125 kHz and 13.56 MHz credentials, with optional support for BLE or NFC Mobile Access.

"The DL100 wireless deadlatch is the industry's most affordable retrofit solution, making it easy for integrators to upgrade mechanical openings to wireless access control," said Patrick Hill, Product Manager, ASSA ABLOY Opening Solutions Americas.

"Minimal field configuration provides quick, hassle-free deployments that eliminate the cost, inconvenience, and sometimes unavailability of hardwiring a door."

Available standard in a fail-secure configuration, the DL100 is always operable from the inside handle or paddle, with entry via mortise cylinder or integrated card reader. The deadlatch comes complete with Form C latch status and tamper monitoring and the product is powered by two AA lithium batteries.

The DL100 offers a real-time Door Position Switch (DPS) monitor, Request to Exit (REX), and battery health monitoring and control. Fully-encrypted AES 128-bit wireless connection between the DL100 and Aperio® hub ensures cyber-secure data communications.

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NAPCO Security Technologies is excited to introduce new Professional NAPCO HD Video WiFi Cameras & Doorbell, now in-stock and available. Put video accounts online in less than 10 minutes with affordable pro video and gain incremental RMR from residential and

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Paxton's Entry, a smart, simple video intercom system



ased door entry suitable for standalone and networked syst

Paxton Access, a pioneering technology manufacturer's Entry is an award-winning video intercom system that can be installed as a standalone, or on an efficiently scalable, networked system.

The complete Entry video intercom system is made up of just three components: a door controller, external panel, and interior monitor. This plug-and-play system allows users to grant access and make informed decisions through visual identification when someone is requesting to enter their building. This is achieved through a choice of monitors and panels that vary in functionality depending on a user's site requirements. Entry also allows day-to-day access via token, PIN, or code.

Since its initial release, Entry has received consistent firmware updates and gained an extensive range of impressive hardware options, built to last. All come with Paxton's hassle free 5-year guarantee. Throughout Entry's development, the system has won a string of industry awards, where it has been recognised for intuitive usability, quality hardware, and aesthetic design.

Entry can be installed as a standalone system and is an ideal option for sites where a simple, flexible intercom is needed. It is scalable up to 100 panels and 1000 monitors, making it suitable for a variety of

environments including education facilities, commercial buildings, and multi-tenant dwellings.

The modern hardware can also form part of the larger security systems that Paxton has developed. These are Net2, a well-established networked access control system, and Paxton10, the newest innovation combining access control with video management. When Entry is installed with either system, the user can benefit from an array of additional features that include event reporting, remote management, and fire and intruder alarm integration.

Entry gives users hardware options, with an extensive selection of entry panels and internal monitors. Users can opt for an audio monitor and a straightforward panel with an LCD screen and keypad or opt for more advanced touch screen monitors and panels which offer customisation, personalisation, and contact images for quick visual recognition.

For higher-risk areas, Paxton offers vandal-resistant panels, with flush, surface, or rain hood mounting options.

As a standalone system, Entry is still packed with significant intuitive functionality. Its SIP compatibility allows users to integrate their smartphones, tablets, or PCs to answer calls from the panel. The Entry hardware offers easy interaction with visitors as it enables high-quality voice or video calls from

the panel to monitor. Visitors can also leave video voicemails if a user does not answer, and the user will receive a notification on their device.

When an Entry Premium monitor is installed, the system has a free concierge management feature which gives building managers or receptionists the ability to contact other users via their monitor, providing an effective broadcast messaging system. If Entry is installed with Net2 or Paxton10, added security features are available. For example, in an emergency, the site can be securely locked down at the touch of a button.

With Paxton10, Entry can be taken to the next level in security management, as the Entry panels can grant access with free Bluetooth® Smart Credentials when connected to the intuitive, web-based software.

The cost-free virtual tokens make this a highly scalable option when compared to traditional keyfobs or tokens, by enabling a user's smartphone or smartwatch to work seamlessly as an access token. These can be issued in advance by a building manager via text or email and boast an extra layer of security by utilising the biometrics on an individual's smart device.

The hardware for Entry makes up one of the simplest security solutions on the market, with the system components auto-detecting on setup.

Hikvision Smart Boom Barrier Solutions for Securing Toll Plaza and Housing Complexes



Hikvision India has introduced Smart Boom Barrier Solutions in the market. These new launches include, DS-TMG51X series barrier gate in the premier segment and DS-TMG4BX series barrier gate in the economy segment.

"India's road infrastructure and highway network are rapidly developing with new toll plazas. The demand is emanating from the housing sector, which requires the state-of-the-art Smart Boom Barrier Solutions in residential housing complexes. Hikvision's Smart Boom Barrier Solutions are very useful value additions to the premier and economy segments. We are sure these Smart Boom Barrier Solutions are going to add value to the security of Toll Plazas and housing complexes," said Ashish P. Dhakan, MD and CEO, Prama Hikvision India Pvt. Ltd.

DS-TMG51X series barrier gate is applicable to entrance and exit management. It is widely used in road toll stations, parking lot, community, enterprise entrance and exit, etc. to manage the entering and exiting of vehicles and record vehicle passing times. It can be controlled automatically via parking lot management system, or via handle, remote controller, buttons, etc.

The key feature of this Smart Boom Barrier Solution include:

- DC frequency con-

version. The rising and falling speeds can be adjusted independently. The boom pole can rise in high-speed to let the vehicle pass quickly.

- The boom pole can fall at low speed to avoid hitting vehicles and pedestrians.

• High protection level. The chassis is produced with 2 mm cold rolled steel sheets in numerically-controlled precision. The surface is coated with plastic powder which is anti-UV, antistatic, non-peeling, and non-fading. The dust-proof and waterproof level conforms to IP54.

• Multiple control modes. Rising priority. The boom pole can be controlled via relay, remote controller, and software command.

• Multiple anti-hitting modes via induction, IR, pressure wave, etc.

• The boom pole direction is adjustable from left to right, or from right to left.

• Anti-condensation. The electric motor is in low consumption even when the barrier gate is not in working status, which will keep the motor in normal temperature. So even in cold weather, the lube will not be frozen to guarantee the normal running of the barrier gate.

• Auto lock. Even when the power is cut off, you can use tool to keep the barrier gate working.

• Embedded with vehicle detectors which can cooperate with the coils to trigger the boom pole to rise when a vehicle is passing and avoid hitting the vehicle.

DS-TMG4BX series barrier gate is applicable to entrance and exit management. It is widely used in road toll stations, parking lot, community, enterprise entrance and exit, etc. to manage the entering and exiting of vehicles and record vehicle passing times. It can be controlled automatically via a parking lot management system, or via remote control.

Its key features include:

• Hand wheel on motor design. When power fails, rotate the hand-wheel to raise or lower the pole.

• Three buttons to control the boom pole to rise, fall, or stop.

• Contactless monitoring with more accurate control and more stable running.

• Multiple interfaces, connectable to IR cable (low level signal input), induction, and toll connection system.

• Simple wiring. No need to arrange or distribute cables.

• Wireless remote control via 430.5 MHz remote controller.

• Strong environment adaptability. It can be used safely in -30 °C environment.

Vuwall expands Pak video wall node family



Vuwall is expanding its award-winning, cost-effective, and scalable Pak video wall processing appliance family with a new model, the Pak 20.

Featuring the same hardware as the existing Pak 10 model, Pak 20 supports two 1920x1080 at 60Hz outputs or one 3840x2160 at 60Hz output, along with multi-format decoding. Now integrators can deploy the Pak appliance that suits their project's requirements, from the Pak 10 featuring one 1920x1080 at 60Hz output to the Pak 40 providing up to four HDp60 outputs.

"Not every video wall installation is the same,

nor do they demand the same support," said Mark Schmidt, chief technology officer of Vuwall. "Due to the overwhelming popularity of Pak and its successful launch, we decided to add granularity to our product line to meet the output requirements of our client's projects more accurately and bring even more cost-savings to their deployments to offer more cost-effective solutions without compromising on performance."

Recipient of multiple ISE 2022 and Infocomm 2022 Best of Show awards, Vuwall's Pak can operate as a standalone device or can be stitched with other Pak nodes to build an IP-based video

wall that is infinitely scalable. With the cost-effective and compact appliance, integrators can simplify video wall deployments by reducing the number of connections and eliminating a single point of failure — reducing project risk and offering improved reliability.

In addition to variable output support, Pak features multi-format decoding of up to 32 HD streams per device, including H.264, NDI and remote desktops, or virtualized browsers using VNC.

As part of Vuwall's ecosystem, Pak is managed by the company's award-winning TRx centralised management platform. Easy to set up and configure, Pak is perfectly designed for multi-room visualisation, situational awareness, control rooms and corporate workspaces. Its eco-friendly design boasts a compact form factor and low power consumption. Pak is small enough to be mounted behind monitors, saving rack space and reducing extended video cable runs.

son of interest and follow them across all cameras. Examples include: getting an alert when a vehicle or person enters a facility at odd times, or when an unauthorised car parks in a restricted spot.

Key differentiators of Eagle Eye Smart Video Search include:

- Available to all customers at no additional charge.
- Works on any standard camera, with no additional hardware required.
- Uses AI to enable faster search for forensic and real-time use.

Eagle Eye Smart Video Search benefits:

- Saves time and resources when investigating an incident.
- Provides real-time alerts.
- Allows security and law enforcement to make informed decisions during critical incidents.
- Provides data to simplify security, improve operations, customer services, logistics, and more.
- Improves security and operations in retail, smart cities, smart parking, education, manufacturing, logistics, hospitality, healthcare, anywhere users have security cameras.

"With billions of security cameras deployed across the globe, the amount of video data is exploding, making it impractical to manually search security video for incidents, information or insight," said Dean Drako, CEO of Eagle Eye Networks.

"Two decades ago, as the web was exploding into billions of documents, search engines transformed web pages into searchable content and made them accessible to everyone. Similarly, Eagle Eye Networks Smart Video Search transforms video into searchable content and makes it available to everyone."

Xiaomi Launches Xiaomi 360 Home Security Camera 1080p 2i in India



Xiaomi has just launched a new home security camera for the Indian market. The company has already been offering several home security solutions to Indian customers. You can check them out by going to Xiaomi India's official website. The new product which has been launched by the company just now is the Xiaomi 360 Home Security Camera 1080 2i, and it is an affordable security camera solution through

which you can keep your home secure.

Xiaomi says this is the perfect solution/device for people who are looking for 24x7 all-round home protection with quality resolution.

The Xiaomi 360 Home Security Camera 1080 2i can support a 360-degree horizontal view as well as a 108-degree vertical view. For enhanced night vision, there are invisible 940nm infrared LEDs.

Xiaomi said that its new camera also supports AI human detection, which combines AI with deep learning technology that optimises algorithms effectively and filters out false alarms for improved accuracy. Through the Xiaomi Camera Viewer App, users can control the security camera and can even take snapshots from the live feed.

Eagle Eye Networks brings Smart Video Search feature to quickly search for security incidents across all cameras



Eagle Eye Networks, the pioneer in cloud video surveillance and artificial intelligence (AI), introduces Eagle Eye Smart Video Search, a new feature for all customers to make searching for video as fast and easy as searching the web.

Built into the Eagle Eye Cloud VMS (video management system), Smart Video Search allows customers to quickly search across all cameras and all locations and instantly find the exact

video they're looking for, and quickly share video clips. There is no extra subscription fee, and no special cameras, hardware or local installation are needed.

Similar to a web search, customers type in descriptions such as 'man with blue shirt,' 'person with backpack,' or 'white Toyota car.' Results can be narrowed down by date, time, location or camera. Eagle Eye uses AI to index video in near real-time, making the video searchable almost

instantly, and delivering fast, accurate results. For example, if there's a security incident in a parking garage, users can search and—within minutes—find the person who entered the parking facility in that region.

Business owners and security directors can use Smart Video Search to set up real-time alerts to notify them of important or problematic situations. Another important feature of Search is 're-identification,' the ability to identify a per-

FLIR RS8500 high-speed camera integration into the NEOS optical tracking system

The FLIR RS8500 high-speed camera has been selected for integration into the NEOS optical tracking system from Nurjana Technologies.

Based in Cagliari, Italy, Nurjana Technologies provides mission-critical engineering services and system integration for the aerospace and defense industries. The company has been

successful in offering unique electro-optical systems for government test labs and military test range applications.

The latest addition to the company's product portfolio is the NEOS (Nurjana Electro-Optical System), a complete hardware- and software-based system for real-time optical tracking in long-range, high-precision measure-

ment applications. The system was designed to fuse data from multiple sensors, including optical payload, telemetry, radar, and ranging measurement data. The optical payload is customised and composed of a visible-light tracking camera, a radiometric thermal imaging camera, a visible-light measurement camera, and a high-speed camera.



Near real-time data fusion and computer vision are leveraged for detecting and tracking targets in the most demanding scenarios. “A high-resolution thermal camera was essential for this type of application,” said Davide Piras, System Engineer at Nurjana Technologies, adding “A thermal camera does not only allow us to see targets in dark or adverse weather conditions, like cloudy weather or rain, but we were also looking for a high-speed, high-resolution thermal imaging solution that enabled us to see smaller objects at very long range.”

Nurjana Technologies demonstrated the NEOS system and FLIR

RS8500 at select firing test range facilities and centres of excellence for experimentation in the NATO domain. The demonstrations not only showed the FLIR camera’s impressive clarity and image quality, but also its superiority to visual cameras in cloudy conditions.

Nurjana Technologies also valued the straightforward integration using a GenICam protocol, which makes it easier for integrators and end customers to control the camera system over Linux. The NEOS system with the integrated FLIR camera is customisable and available for a wide range of automatic detection, recognition,

identification and tracking applications, including bomb scoring, splash detection, impact point prediction, and accurate missile, projectile and rocket tracking.

A downsized version of NEOS is available for civilian applications, within the domains of critical infrastructure protection and monitoring. Since the FLIR RS8500 is a radiometric infrared camera and the continuous metric zoom lens provides instantaneous focal length and position information on every frame, the system can also be used to capture target data, including signature and apparent temperature measurements.

Vivotek's VC9101 Split-Type Camera System



VIVOTEK has announced the release of the NDAA Compliant VC9101 high-performance split-type camera system with Trend Micro IoT Security.

“The VC9101’s discreet design, rich functionality, and ability to be flexibly integrated into even the tightest spaces, make this camera ideal for indoor or covert surveillance of ATMs, banks, stores, and offices,” said David Liu, President of VIVOTEK

USA, Inc. “The VC9101 features a separate camera unit (CU series) and video core design, enabling the tiny camera unit (with 5-meter long cable) to be easily and flexibly installed into any decoration or interior design, thus preserving stylish appearances while dramatically saving on installation time and cost.”

The VC9101’s video core has a powerful processor which can stream a 5MP 360 de-

gree fisheye image or a 4MP 16:9 image. Furthermore, the VC9101 is equipped with CNN (Convolutional Neural Network) hardware accelerator which allows the deep learning VCA to be more efficient and powerful. VC9101 also provides deep learning based face detection suitable for most installation scenarios.

The VC9101 camera core can support one camera unit and is designed to work in

perfect harmony with a choice of four different types of camera units (CU9171-H, CU9171-HF, CU9183-H and CU9183-HF). The whole system incorporates a number of advanced features found in VIVOTEK cameras, including WDR Pro, SNV, Smart Stream III technology, 3DNR, and security features like secure boot, signed firmware, and Trend Micro cybersecurity.

Benefits of the VC9101 include:

- Discreet Appearance: The smaller camera form factor enabled by the split core/camera design also allows a less

obtrusive appearance where there are aesthetic concerns or to reduce the risk of opportunistic tampering or vandalism.

- Flexible Selection for Different Scenarios: With a choice of four WDR camera units: the CU9171-H(F) pinhole type, and the CU9183-H(F) fisheye type for 180 degree Panoramic View, the VC9101 provides unprecedented flexibility. The split-type camera system can be used to monitor spaces such as ATMs, elevators, a single large space, or to provide different types of views, among other possible usage scenarios.

- Greater Coverage

with Simplified Installation: The camera unit that can be connected to the core unit can be positioned up to five meters away, enabling the tiny camera unit to be easily and flexibly installed into any decoration or interior design.

- Easier Maintenance and Upgrades: The modular design of the VC9101 makes removing individual camera units for maintenance or replacement extremely easy. Moreover, upgrades can also be easily accomplished, since they need only involve swapping out of a camera unit and not replacement of the entire system.

A value-for-money motion detector from Jablotron



This Passive Infrared (PIR) motion detector from an economical Jablotron, a leading global manufacturer of high quality alarm systems since 1990 offers excellent protection against intruders. It is specifically meant for protecting internal spaces of homes and commercial buildings. It detects object movement having a human body temperature. The JS-20 distinguishes itself with excellent RF immunity.

The signal from the sensor is electronically

analysed. This ensures that the detector provides excellent sensitivity and at the same time false alarms are basically eliminated. The detection analysis rate can be adjusted to increase its immunity if the JS-20 is installed in a problematic location. It can be mounted on a flat wall or in a corner and works on 12 VDC and consumes as low as 10 mA of power in the normal operational mode which goes to a maximum of 35 mA when it detects movement and its LED indicator turns on. With

a standard lens it offers a detection angle of 120° and a range of 12 m and is compatible with almost all regular alarm control panels.

Its operating temperature range is from -10 °C to +40 °C and its Indian distributor Kawach Protection Systems says it has been successfully used under Indian climatic conditions for many years without a problem of false alarms. It conforms to international standards grade 2, EN 50131-1 and EN 50131-2-2.

Dahua Technology designs a new video surveillance system for El Bosque Shopping Centre in Ecuador



The El Bosque Shopping Centre is emblematic in Quito, Ecuador, since it has been a part of people's lives for 38 years. It is named after an important area in the north of the city. There is already at least one generation that grew up witnessing the growth and renovation of this shopping centre.

Dahua Technology designed a new video surveillance system for it. The system focuses on automatic number-plate recognition (ANPR) and security surveillance in the most critical areas of the mall, largely covering parking areas, where access control and real-time visitor capacity monitoring are required.

The old video surveillance system of El Bosque Shopping Centre was installed in 1990 and was facing inconveniences. For instance, more than 30% of areas in the mall were in blind spots, and old security cameras had poor video fidelity and unclear images, which made it hard to detect illegal acts or present evidence. In addition, the mall did not have surveillance cameras in the most important areas, such as parking lots and restricted corridors.

Therefore, monitoring the entire shopping centre was a big challenge for the security guards, which increased labour and time costs for the mall and lowered management efficiency.

The new video surveillance system includes many units of 2 MP HDCVI IR Bullet Camera, 2 MP IR Mini-Bullet Network Camera, 32 Channel 1U 4K & H.265 Lite Network Video Recorder, 32-Channel Penta-brid 720P Digital Video

Recorder, etc. Panoramic 180° view cameras with automatic number-plate recognition (ANPR) technology are installed in the parking areas, to read vehicle registration plates for entrance access control. The solution realises real-time people counting and motion detection alarms in required areas.

Advanced technologies embedded in the cameras help produce the best performance of the system. All the bullet cameras, including the 2 MP HDCVI IR Bullet Camera, are equipped with Smart IR technology for the best low light performance.

The 2 MP IR Mini-Bullet Network Camera is equipped with a built-in intelligent analytic algorithm based on video, which can realise intelligent functions, like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific areas, and enhance monitoring efficiency.

In addition, the cameras support intelligent tamper detection, which is to generate warning messages via detecting dramatic scene changes. Cameras with audio functions can have both video and audio backup of the work carried out by the guards.

The 32 Channel 1U 4K & H.265 Lite Network Video Recorder delivers excellent performance and high recording quality that is ideally suitable for IP video surveillance applications. This professional NVR adopts a powerful processor, providing the capability of 4K resolution processing for applications where image details are highly required.

Additionally, the NVR can be served as edge storage, central storage or backup storage with an intuitive shortcut operation menu for remote management and control.

What's more, the 32 Channel Penta-brid 720P Digital Video Recorder, as the perfect solution to upgrade existing video surveillance systems, supports penta-brid access technology such as HD-CVI, AHD, TVI, CVBS and IP to effortlessly integrate with popular industry formats, offering an affordable solution loaded with flexible options.

The new surveillance system creates a safer shopping environment for El Bosque Shopping Centre customers. It meets the primary needs of the shopping centre, which are to identify suspicious vehicles and detect illegal activity. Clear video clips will be available for relevant authorities if required. Moreover, the new video surveillance and access control technologies can be updated in the future to cover more areas of the shopping centre.

Juan Anda Sevilla, the Security Chief of El Bosque Mall, said "Good results have been obtained for security and crime prevention, and we are able to deliver various video evidence to the authorities for court cases."

He adds, "The video surveillance system optimises task distribution of the security personnel, saves time for the guards, and improves their work efficiency and accuracy, which strategically reduces the risks that may arise inside the shopping centre."

Milestone provides their video management system at Nemours Children's Hospital



In addition to traditional security and monitoring functions, Milestone's open platform video management system at Nemours Children's Hospital is used to help deliver unique services across departments including radiology and cardiology, behavioural health and autism clinics, for aggression detection, medication tracking, and more.

As one of the largest integrated children's health systems in the U.S., Nemours Children's Hospital is committed to keeping the highest quality care, even at home for the convenience of patients and their families.

To achieve this, technology plays a large role in their health system services. With over 1,800 network cameras throughout the facilities both inside and out, Nemours has utilised network video for years. The video system has grown in size and sophistication, as the technical team at Nemours has built on the open platform of Milestone XProtect Corporate video management software (VMS) with impressive results.

Milestone XProtect Corporate VMS, Smart Client, and Mobile Client • Recording and Archiving Servers from Lenovo and HP • Flexibility to expand the system and innovate with new integrations. The Nemours Tactical Logistics Center (TLC) has 15 large wall monitors and serves as mission control for the hospital video

system. A fixed network camera in each patient room does not record on-going video, but the TLC can use XProtect Screen Recorder to capture live video from the displays if needed.

When the video is being accessed by authorised personnel, a LED notification will flash, letting those in the room know that the camera is monitoring the child in real time. The video system is also integrated with Epic Monitor, the hospital's electronic medical records system, allowing patients' medical information to display on the screen. In addition, Nemours offers CareConnect, a 24/7/365 on-demand video-based, paediatric telehealth program, which provides family access to paediatricians through a smartphone, tablet, or computer.

Nemours uses their video system in both traditional and non-traditional ways, including a range of such integrations. These help the hospital improve facility efficiency, lower operational costs and deliver a better patient experience. For example, in the perinatal department, ultrasound technicians have the ability to share videos of scans with remote professionals in real time.

While a diagnostic-level reading is still necessary, remote video offers a great level of efficiency for providers because they have the option to give guidance to technicians, enabling a more thorough service, and

perhaps saving the patient from additional ultrasound scans. Also, with remote connectivity through the Milestone XProtect Smart Client, if providers are home or traveling, they can quickly check in on patients through mobile devices, easily ensuring continuity of care.

This capability made a huge difference when the COVID-19 pandemic appeared. The video system also plays a vital role in mass casualty drills or actual emergencies, helping officials to make real-time decisions on routing traffic or patients to or from other hospitals.

And with XProtect Screen Recorder, local facilities can capture video from displays and rebroadcast it to hospital leadership for additional direction. It gives them the ability to assist remotely and call other rapid response teams if needed. Overall, the easy integrations and scalability of the Milestone video system have had a very positive impact on the hospital network, helping reshape how Nemours is able to provide care excellence.

"The Milestone open platform allows me the flexibility to source and integrate third-party products and capabilities, enabling us to greatly expand and customise the tools and services that we provide to the organisation and our patients," said Joe Summanen, Technical Architect, Nemours Children's Hospital.

Hochiki fire safety system installed in Italian hotel and spa



After the Italian hotel and spa, Corte Regia Relais, underwent a huge transformation in 2020, installer, Cressoni Impianti Tecnologici, chose Hochiki Italia as the manufacturer for its new fire detection and life safety system. The aim of the renovation was to conserve the building and improve its functional use, while maintaining the original integrity and structure.

As part of the project, a fully compliant fire detection and life safety system was to be designed and installed throughout the hotel's luxury rooms and spa. The biggest challenge with the project was the fact that the hotel was a listed historical building. The original stone walls date from the 800s, and the ceilings with wooden beams had to be kept. This made the wiring for the project

complex, hence the need for a wireless solution.

To keep with the aesthetics of the building, and to minimise additional building changes, the Hochiki Italia team worked closely to collaborate with the installer and the architect to satisfy the client's request to be sympathetic and respect the historical building.

Hochiki's ESP range and Ekho wireless systems were both chosen for installation. Products from the ESP range included multi-heat sensors, intelligent photo-electric smoke sensors with short circuit isolators and high performing chamber technology. This allowed for sensor threshold levels to be increased, thereby improving the signal to noise ratio which reduced the susceptibility to costly false alarms happening within the hotel.

The hybrid system utilises the latest MESH net technology to provide the client with absolute and an economic wireless fire system installation with the minimum of disturbance to the surroundings – particularly important in keeping to the aesthetics of the Corte Regia Relais and Spa where installation of

fire cabling would have been difficult, overly expensive or even prohibited in some parts. The wireless solution installed could be easily expanded around the entire site and worked particularly well with the original solid walls of the building.

Ezio Danese, Project Manager at Hochiki Italia, comments: "The project had to comply with both architectural and standards requirements. The standards state that inside each room, in addition to a smoke detector, an alarm must be installed with a sound level of 75dB (A) in addition to an optical system capable of reaching even hearing-impaired people.

"For this reason, the EKWL8-OV detectors were chosen as they are equipped with an EN54-23 certified VAD and an EN54-3 certified voice sounder. The translators, connected to Hochiki's ESP loop, were installed in the false ceilings in the corridors; their considerable range (1,200m in free area) made it possible to reach all the different wireless devices installed in the rooms. The Ekho system proved to be a perfect solution for the Corte Regia Relais and Spa project."

the first successful pilot project in Thailand, takes advantage of FT9361-R Facial Recognition Tablet and IE8213-FM Content Management System (CMS). The Facial Recognition tablet is installed at the entrance of the showroom to enhance the security and safety of access control.

VIVOTEK VAST Face Facial Recognition Solution is equipped with deep-learning AI that allows facial data storage of over 50,000 users with 99% accuracy of user detection rate, with or without a face mask to beat the pandemic-mask challenge.

Users can also be allocated into independent groups to create VIP lists, blacklists and employee groups, essentially eliminating the need for a staffed front desk and the risk of contact during the pandemic.

Both the entrance and exit points of the showroom are equipped with VIVOTEK SC8131 Stereo Counting Network Camera armed with VIVOTEK's 3D Depth Technology, providing real-time visitor counting and movement tracking while automatically filtering out non-human ob-

jects, with 98% accuracy.

Outdoor surveillance needs are fulfilled with VIVOTEK CC9381-HV 180° Panoramic Network Camera, which features an amazing 180° horizontal panoramic view, with built-in 180° IR illuminators up to 15 metres. This allows comprehensive 24/7 surveillance coverage, no matter dark or light conditions during day or night.

VIVOTEK MA9321-EHTV multi-sensor 360° Panoramic Network Camera is armed with a robust IP66 and IK-10 rated outdoor housing to withstand rain and dust as well as protect against tampering, enabling the perfect network camera to be integrated with Delta's smart pole solution.

With four independent 5MP CMOS sensors, the powerful yet versatile VIVOTEK MA9321-EHTV maximises surveillance coverage and monitoring flexibility, by providing a full 360° angle-to-angle video surveillance coverage from a single IP address, making it perfect for traffic intersections and middle of parking lots.

Cameras installed outdoors (CC9381-HV and

MA9321-EHTV) and at the entrance (FD9360-H), feature VIVOTEK's WDR Pro and Superior Night Visibility technologies together to provide superior visibility in high contrast lighting environments.

On top of that, these VIVOTEK camera models offer high video quality with ultra-low bandwidth with VIVOTEK Smart Stream III technology and H.265 compression codec. This reduces bandwidth and storage consumption by more than 90% while maintaining high-resolution quality video images compared to traditional H.264 streaming.

VIVOTEK solutions effectively enhance the security and safety of smart, green energy net-zero buildings while maintaining innovation and sustainability for smarter and greener businesses.

Delta Thailand's smart and green net zero showroom is an inspiring success story highlighting smart technologies with best practices in efficient energy-saving and zero carbon emission, leading the way on a net-zero target for smarter, greener business and living in Thailand.

VIVOTEK customizes surveillance solution for delta Thailand's net zero container showroom



Delta Thailand launched Thailand's first Net Zero Container Showroom in Amata City, Chonburi, featuring solar power generation, battery management, EV charging, lighting management, indoor climate control and surveillance solutions.

The core of the smart showroom is the scalable and modular Delta data centre solution which enables remote access to its security, lighting, environment and charging systems.

VIVOTEK's state-of-the-art IP surveillance cameras and solutions were featured in the showroom as essential parts of Delta's Smart Building Management solution. The concept of Delta's showroom is to showcase smart and green solutions with energy efficiency to commit to 100% renewable RE100 initiatives by 2030.

A solar rooftop array coupled with a battery system provides the showroom with renewable energy 24/7, while

a battery management system (BMS) combined with energy-efficient lighting and variable regulating valve (VRV) air conditioners perpetuate optimal indoor air quality and temperature with minimised power and CO2 emissions.

Smart monitoring, access control and building surveillance systems are the keys and indispensable to bring such a complex system together as a solution. VIVOTEK tailored a comprehensive surveillance solution specifically for the showroom, by addressing the most critical part of access with a counting solution, as well as corner-to-corner indoor and outdoor surveillance.

VIVOTEK VAST Face Facial Recognition Solution, featured here as

Grupo Nacional Provincial (GNP) Deploys IP cameras using NVT Phybridge Cleer24



new IP security solution. A Coax infrastructure supported the existing CCTV system in each of the company's locations.

The customer had initially thought about ripping out the existing Coax-based infrastructure in each location and using fibre-optic cabling to extend connectivity beyond the 328ft (100m) reach limitation of standard Ethernet switches. However, this strategy would be extremely costly, disruptive, and time-consuming.

The organisation was relying on analog CCTV technology that was unreliable and outdated. GNP wanted to modernise from its outdated system and deploy a new IP surveillance solution to improve security and take advantage of enhanced features.

Several network barriers needed to be addressed before the organisation could deploy the

mended NVT Phybridge EoC (Ethernet over Coax) innovations.

Logen had used NVT Phybridge products in the past for many other projects and was confident in the technology. GNP was excited about the potential solution and organized a proof-of-concept to test the technology in one of its locations.

After a few simple set-up steps, the NVT Phybridge CLEER24 switch transformed the customer's existing and proven Coax-based infrastructure into a power-packed IP backbone.

The CLEER24 switch delivers power and data over a single Coax cable up to 6,000ft (1,830m), which's 18-times farther than a standard Power over Ethernet (PoE) switch. GNP was impressed with the results and decided to move forward with the project using the CLEER24 switch.

GNP was delighted with the entire experience, using the CLEER24 switch to deploy more than 250 IP cameras across several locations. "Installing the CLEER24 switch was simple, quick, and did not require any special tools," said Mario Gomez Alvarez.

"The NVT Phybridge team provided excellent technical support and training materials." The customer was able to avoid the traditional rip-

and-replace strategy, leveraging the existing and proven Coax infrastructure to achieve incredible results.

- Simplify and accelerate the deployment by 40%
- Reduce total infrastructure costs by 50%
- Prevent service outages and operational disruption during the upgrade
- Eliminate IDF closet requirements

- Maintain a physically separate network for the new IP security devices

- Allocate infrastructure cost savings towards more IP devices and applications

GNP took full advantage of the CLEER24's feature set. The switches are stacked and configured for power redundancy. Unused ports are locked for enhanced security. All equipment is centralised in one location for better system control.

Curzon Place Tyneside apartments upgraded with wireless fire protection



A residential development close to the iconic Tyne Bridge is now protected by over 600 wireless devices from Hyfire following a comprehensive overhaul of the fire system.

Built in the early-2000s as part of the Gateshead Quays development, Curzon Place is a familiar site to thousands of motorists crossing the bridge daily, as well as to the many people taking on the Great North Run each year. The new fire system, installed by RayFire Services Ltd, was the first complete overhaul in the building's history, bringing it fully into line with the latest UK fire regulations and best practice.

Ray Hope, Managing Director at RayFire Services, commented: "This was the largest, smoothest install we have carried out to date, largely thanks to the simplicity of setting up and installing the Hyfire Taurus wireless devices, which made the whole process from survey through to commissioning completely seamless. For an apartment complex with residents in situ, you really couldn't ask for more.

"Working with the Hyfire team, we specified a full communal Level 1 system, incorporating heat detection and sounders within each apartment lobby and additional heat detection in sensitive areas. We were

able to reduce wiring by up to 90%, with a radically reduced installation schedule and minimal disruption for residents."

Developed in Trieste, Italy, the global centre for wireless fire design, Taurus features Pathfinder Technology, which is said to allow the devices to communicate up to a kilometre away, point to point in open air, and further where expansion hops are used. Antenna technology has been optimised to allow communication across different frequencies and environments, requiring less equipment and fewer batteries, according to the vendor.

Security at Trestle Theatre upgraded with access control



Security installation and integration provider, Amthal, has upgraded Trestle Theatre with an access control system incorporating network control, software and proximity ID cards.

St Albans-based, Trestle moved into Trestle Arts Base over 20 years ago, a 100-year-old converted chapel, it houses a 84 (end on) to 120 (3 sides) seat flexible theatre space, rehearsal studio, café, offices and a meeting/function room.

Clare Winter, Executive Director for Trestle Theatre said: "We are committed to providing a secure and welcoming space for everyone to access here at the Arts Base, so any security installed had to be carefully considered with regards its impact on our users as well as the aesthetics and architectural style of this remarkable building.

"Amthal understood this and following a thor-

ough site survey, designed the access control system around our needs. The installation process was quick and the new system is easy to manage and ensures complete access, safety and security. We are also safe in the knowledge it's future proofed so that as we continue to develop the site, the level of protection can continue to grow with the facilities available."

As the Arts Base continues to develop the quality of experience for all who visit, the site management team is also conscious of ensuring controlled access and protecting the assets of the building premises for the benefit of all who visit and work on site.

Following an initial site survey to understand the requirements of the site, Amthal installed a Paxton access control system incorporating an IP networked control solution, software and prox-

imity ID cards to offer ultimate door entry and controlled access management.

David Williamson, Sales Manager at Amthal added: "Trestle Theatre was clear in a desire to partner with a company and develop a long professional relationship to maintain the high level of protection required at their premises, with ongoing streams of staff and visitors at all times of day and night.

"Amthal shares this vision, which is why we go the extra mile to ensure security solutions fit the requirements of buildings in terms of functionality, flexibility, scalability and management. Trestle Theatre is also a great example of how the very latest access control solution can be installed seamlessly in such a beautifully converted chapel building, with no effect to the architectural design."

Contd... from page 1

How secure really

- The video with a high bitstream can be converted to a low bitstream. (8K,4K,3M, 1080P. ..→D1,CIF,VGA...)

- Transcode video in different encoding formats to the unified encoding formats. (H.265, MPEG4→H.264)

The last step: output standard video data for

the third-party integration

A good VMS system should provide convenient ways for several video processing applications.

In integrated applications, particularly in media interchange, a good system should output standardised protocols and stream formats (such as HLS,

RTSP, WebSocket, etc) according to the needs of the third party, so that the third party can easily acquire and use video from the VMS system for the further application or development.

The author, Alice (Cai Xiaohua) is the Overseas Marketing Manager for Hangzhou DaXun Digital Technology Co., Ltd.

The evolution of mass notification technology



Safety technology continues to evolve to meet the demands of organizations looking to fulfill their duty of care. New tools may solve niche problems, but it is important not to overlook time-tested solutions that offer more features than many might be aware of.

Mass notification systems are a prime example: While most may think of mass notification as a way to broadcast audio messages to different types of devices, a growing list of integrations and features means that while the name has remained the same, the capabilities have grown beyond this traditional use-case.

Even organisations that already own mass notification may not realise what is fully available to them. It is important for integrators to emphasise that instead of single-use solutions, these systems have become multi-functional to offer more comprehensive methods for handling every aspect of an emergency situation. It is important to understand how these developments can enhance existing processes and procedures so organisations can do everything in their power to provide safe environments that keep people informed about potentially dangerous events.

Audio broadcasts continue to be the core function for mass notification, but organisations are realising that to reach everyone, they need to leverage every communication channel at their disposal, and that during an emergency, simply sending out a message is not enough to keep everyone safe.

Mass notification systems are addressing these two issues with more ways to send messages and more tools that help organisations handle a

crisis from start to finish. Mass notification integrations have expanded beyond paging and phone systems to help leverage the technology most organisations already have in place.

This helps extend the reach of emergency messages, and it helps organisations get more value out of existing investments. The more flexibility a system offers, the less an organisation needs to worry about spending more resources on new technology that can work with it.

These integrations include IP speakers, digital signage, desktop computers and mobile devices for delivering messages; as well as incorporating panic buttons, IoT devices, wearable devices, and mobile apps for triggering a message.

Notifications can also be sent with text, audio, and visual cues which helps ensure messages cannot be ignored when they are delivered. This can also help speed up the time it takes people to respond to an incident as they receive alerts with more immediacy and can begin following instructions included in a message.

Getting messages out is only half the battle, which is why many mass notification systems have added critical event management features. While these capabilities can vary depending on the vendor, the basic goal is to offer organisations more tools to handle a crisis without needing to invest in additional solutions.

Too often, organisations still rely on file folders or binders to house their emergency response plans. While this can mean response plans are thorough, those files live in someone's office or on a shelf, meaning accessibility is limited. An incident can occur anytime, anywhere, and organisa-

tions need to be prepared to respond the moment someone notices something goes wrong. Having to go and find a file folder or even be at a specific computer workstation offers limited practical usability at the moment.

New incident management features available within mass notification systems take those binders and make them actionable. Every step and procedure can be uploaded and accessed from any desktop or mobile device that has access to the internet. This offers an immediate and flexible way to begin managing an emergency.

This can often begin with organisation grouping related notifications under the umbrella of a scenario. For example, all their messages for an active shooter situation, including the initial alert, follow up details, and the "all clear" message can be sequenced together. This saves system administrators time because they do not need to search through all of the messages to find the ones they need for that incident, and administrators are less likely to miss a critical step because every step of their emergency response plan is laid out for them in the system.

Some systems also offer the option of uploading vital resources ahead of time, like safety checklists, floor plans, and links to security camera feeds, to help administrators have every tool they need at their fingertips. Additional information can also be uploaded as an event unfolds, like a description or photo of an intruder, to provide necessary context to those responding to a situation.

Integrations with collaboration tools like Webex, Microsoft Teams, and Slack offer a quick and easy way to further manage events and co-

ordinate a response. Organisations can segment messages to be sent to different groups, allowing messages to be sent throughout an organisation while simultaneously sending messages to select security team members with an invite to join a virtual conference space. This helps gather key stakeholders who can provide insight into the event taking place and determine the best course of action for keeping everyone safe and resolving the incident.

Once an event is over, reporting features can provide a deeper level of understanding for organisations that want to know just how effective their response was. Mass notification systems can

deliver details on how successful an organisation was at delivering messages so potential issues can be identified and addressed. These reports can provide valuable direction for organisations looking for ways to evolve their emergency response plans.

Most organisations implement mass notification tools to help with safety and security, but more and more organisations are finding value by also using them to assist with daily operations. Schools use it to manage their bell schedules, hospitals use it to announce Code Blue events, and manufacturing facilities use it to help stop production lines.

With the ability to

schedule messages and automate procedures with integrated technology, organisations are able to save time and reduce workloads for menial and repetitive tasks that would otherwise need to be done manually. IT teams can use it for outages, HR can use it for organisation announcements, and facilities teams can use it to send alerts about maintenance issues. This also helps familiarise people with the mass notification system, as people outside of security teams can find ways to leverage it and use it more regularly – so when an emergency does occur, people know how to navigate and effectively use the system to help resolve a crisis.

Siemens adds IoT technology to Cerberus portfolio



Siemens is expanding its Cerberus Pro fire safety offering with updated FC720 fire control panels, an IoT-enabled OOH740 detector equipped for disturbance-free tests, and the Cerberus Connect mobile app that complements the existing Cloud Apps. As a result, system integrators, service providers and customers will benefit from resource optimisation, simplified planning and maintenance as well as higher convenience during operations.

The new FC720 fire control panels use the new X200 gateway for built-in connectivity, which facilitates installation and commissioning processes. This leads to higher efficiency and optimised total cost of ownership. This fire control panel generation comes with an updated periph-

ery board which significantly increases power on the loop. This gives customers more flexibility to plan their systems in the most efficient way. Additionally, the panels offer refined software features to optimise operations.

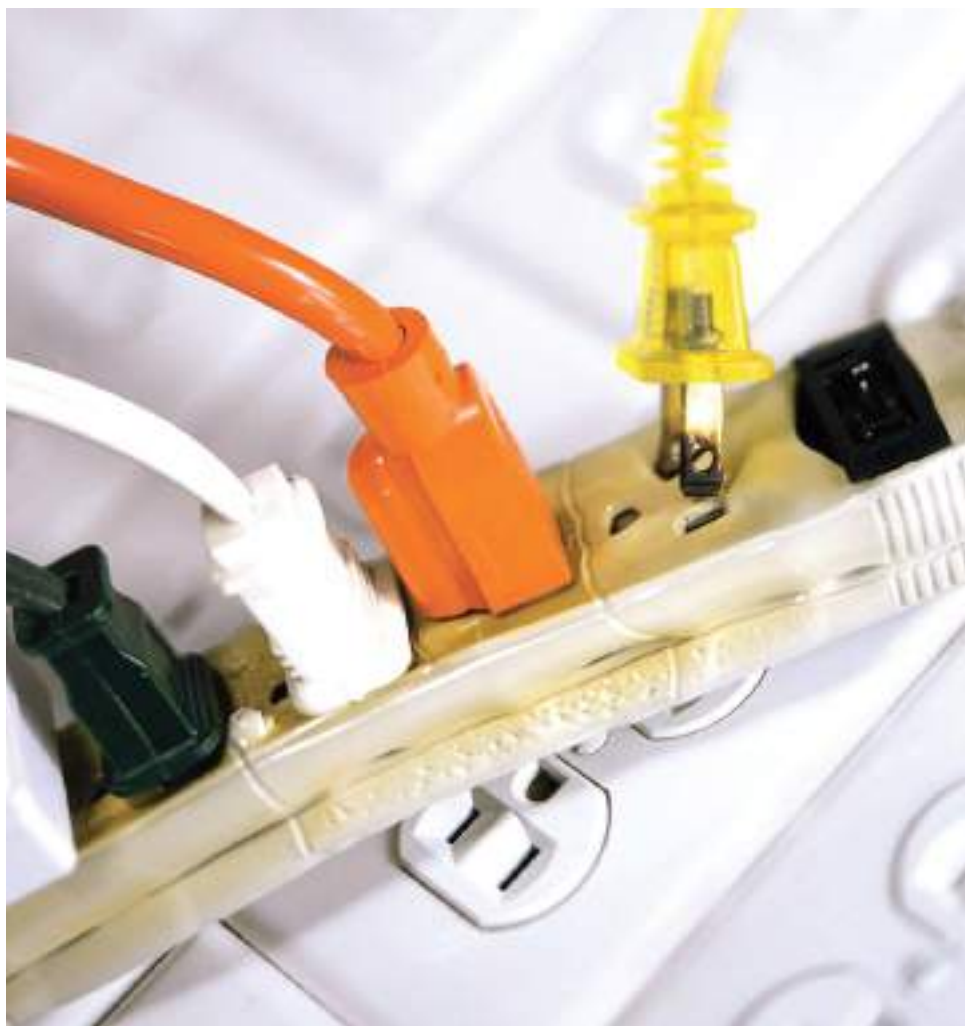
In addition to the proven ASA technology (Advanced Signal Analysis), the OOH740 Cerberus Pro detector is now also equipped with DFT technology (Disturbance-free Testing). With DFT technology, the functionality of the detectors can be tested automatically either at predefined times or on demand, both on site and remotely. This can improve safety beyond regulations by more frequent testing, without causing any disturbance to the building processes or users.

Cerberus Connect

App is a new app in the Cerberus Cloud Apps portfolio, available both for IOS and Android. Fire safety staff can receive push notifications in case of an event, and can check the status and event history of their fire safety site from anywhere and at any time.

Furthermore, maintenance and regular service visit planning and reporting has been improved by digitalising the process through the Cerberus Cloud Apps. The service provider can plan what to test at the next visit through the Cerberus Portal, conduct testing on site via the Connect App and then generate compliant reports through the Portal. These can be sent to the customer, who has full visibility of the fire system and can prove compliance if needed.

Tips for protecting your fire alarm systems from power surges



The importance of fire alarm systems cannot be overstated. From saving lives to protecting valuable property and equipment, fire alarm systems are a mainstay of all modern buildings. So much so that their use in residences, businesses, and public buildings is mandated under a number of National Fire Protection Association (NFPA) codes. NFPA codes ensure applicable fire and life safety systems are functioning properly and consistently.

If a system is found to be in violation of fire codes due to downtime or other mismanagement, the deploying organization could be subject to costly fines and/or facility shutdowns.

One of the most problematic and overlooked challenges associated with maintaining consistent operations of fire alarm systems is system failure caused by power surges and spikes. Disruptive power events can severely damage or destroy fire alarm systems without notice, providing a false sense of security as individuals believe their alarm systems are working when in fact, they are not.

In one scenario, a surge-damaged system would be identified during a routine fire safety inspection and the offending organization subject to applicable

fines for fire code violations. In a worst-case scenario, a failed system would go unnoticed until a fire is well underway, resulting in devastating losses. The implementation of surge protection devices (SPDs) is one of the only ways to prevent both undesirable scenarios.

Power Surges Strike When Least Expected

One common misconception is that power surges are only caused by lightning and therefore electrical equipment is only at-risk during thunderstorms. In reality, lightning strikes account for only 2% of all surge-related damage according to the Insurance Institute for Business and Home Safety. Power surges originate from a variety of sources, happening either all at once (as is the case with lightning strikes) or over time, causing them to go largely unnoticed.

Overlooked sources of sudden power surges include external sources such as utility grid switching or large neighboring power draws, and even internal sources generated from inside the building itself. Powering up internal HVAC systems, elevators, refrigeration systems, and other high-powered motors and pumps generates sudden bursts of power, which all have a cumulative ef-

fect on electronic equipment. Sensitive Fire Alarm Control Panels (FACPs) are no different. As an FACP experiences small transient surges, the panel and connected systems deteriorate slowly over time. While the effects are often unnoticeable to the human eye, they do lead to shorter equipment lifecycles and unexpected failures.

Another common misconception is that FACPs with built-in circuit protection do not require external surge protection. The truth is that surge protection built into any individual device will not protect all of the various system components from damaging power disruptions.

An Expanding Attack Surface

Fire safety technology has only evolved in recent years to address the growing patchwork of local and state fire codes as well as new safety concerns. The introduction of the Internet of Things (IoT) to fire protection systems only serves to increase the proactive aspects of monitoring and alert notification.

For example, new IoT solutions have the capability to alert building owners of faulty heads or pipes in the sprinkler system. Smart sensors can also monitor

water pressure and flow rate in the building's sprinkler system, so the water output automatically adjusts to meet the intensity of a building fire, potentially saving lives.

The unfortunate downside of this interconnection is the increased risk of power surge damage for every new IoT that is added. New smart sensors, video image smoke detection technology, voice evacuation systems, and other IoT accessories are each made up of unique electronic components and, as such, subject to the same power surges and spikes as any other electronic device.

Since power surges can spread through connected systems, a connected IoT device experiencing a power surge can potentially take down a whole fire alarm system, network, and more. When one critical system is unprotected from surges, others are vulnerable.

Applying the Proper Protection

To shield valuable fire alarm systems from damaging surge events, surge protective devices should be installed on every potential pathway. As the "brain" of the fire alarm system, the central control panel requires a surge protective device for its 220VAC power source.

The FACP connects all system sensor and device inputs via Signaling Line Circuits (SLC), which allows the FACP to monitor and control all connected detectors and input/output modules, controlling alarms and outputs to other systems, and information relays. As such, the FACP necessitates surge protection, but it's important to note that FACP surge protection is not sufficient for system-wide protection.

Because FACPs connect to external power and devices, all connected devices are susceptible to electrical

disturbances – including accidental contact with power lines, or induced currents from nearby lightning strikes.

Any external wiring, such as SLC wiring that connects multiple buildings or notification systems that employ the use of telephone lines and other IP peripherals to summon an emergency response, is also at risk for power disruptions. So much so that NFPA code 72 – 2013, Chapter 12 mandates that, "all non-power-limited and power-limited signaling system circuits entering a building shall be provided with transient protection." In these instances, surge protectors help prevent surges applied to exterior wiring and devices from damaging interior fire alarm systems.

The True Cost of Power Loss

Just as the importance of fire alarms cannot be overstated, neither can the importance of surge protection. In the absence of surge protection, the cost to repair or replace a damaged fire alarm system could be well into the millions of dollars.

If other networks or devices were damaged as a result, costs could easily multiply to an unmanageable amount. Making matters worse, organizations may be mandated by local fire codes to pay a local department for a "fire watch," a manual observation for fire hazards, while the alarm system is being replaced. This does not account for any fire code violation fines that may be issued for a damaged system uncovered during routine fire safety inspections.

Beyond monetary losses, there are incalculable losses that can occur as a result of a failed fire alarm system. If a fire were to occur during system downtime, property and equipment damage could require a forceable closure of a business from which recovery may not be pos-

sible. A similar loss of employee and customer trust could lead to irreparable brand damage. Personal injury and loss of life are other very real possibilities when it comes to an inoperable fire alarm system, only highlighting the immediate need for fire alarm surge protection.

Today's Surge Protection Solutions

The application of surge protection devices throughout a fire alarm system is a cost-effective way to manage risk in professional applications. For a fraction of the cost of complete system replacement and potentially less than fire code violation fines, organizations can protect their assets from a potentially devastating physical security threat. In recent years, SPDs have increased in functionality, efficiency, and cost-effectiveness with the integration of modern technologies.

For example, because of SPDs' self-sacrificing nature, regular device inspections were previously required to ensure that all devices were functioning properly. This process was traditionally labor intensive and costly but missing an inspection could negate the function of an SPD in the first place.

Now, innovative SPDs are equipped with LED and audible status indicators that alert a user to a device that reached its end of life. More advanced units also include dry contacts to facilitate remote notification of surge protection status.

Surge protection delivers peace of mind for organizations just as fire alarm systems do the same for their employees and guests. It is important that security teams, electricians, and technicians see surge protection as mission-critical equipment in a fire alarm system rather than as an option. Doing so not only saves money, but it also has the potential to save lives.

A surge protector (or spike suppressor, surge suppressor, surge diverter, surge protection device (SPD) or transient voltage surge suppressor (TVSS) is an appliance or device intended to protect electrical devices from voltage spikes in alternating current (AC) circuits. A voltage spike is a transient event, typically lasting 1 to 30 microseconds, that may reach over 1,000 volts. Lightning that hits a power line can give a spike of over 100,000 volts and can burn through wiring insulation and cause fires, but even modest spikes can destroy a wide variety of electronic devices, computers, battery chargers, modems and TVs etc, that happen to be plugged in at the time. Typically the surge device will trigger at a set voltage, around 3 to 4 times the mains voltage, and divert the current to earth. Some devices may absorb the spike and release it as heat. They are generally rated according to the amount of energy in joules they can absorb.

AI at the edge offers an interesting future



Artificial intelligence or AI is becoming a common factor in almost every aspect of our lives. It used to be that putting AI at work involved huge server rooms and required vast amounts of computing power and, inevitably, a significant investment in energy and IT resources. Now, more tasks are

sending data back to the server.

Cost efficiencies

With edge AI devices, compared to a cloud-based computing model, there isn't usually a recurrent subscription fee, avoiding the price increases that can come with this. Focusing on edge devices also enables end-users to invest in their own infrastructure.

Greater scalability

Cameras using edge

time.

Additionally, running AI on a device can improve the accuracy of triggers and reduce false alarms. People counting, occupancy measurement, queue management, and more, can all be carried out with a high degree of accuracy thanks to edge AI using deep learning. This can improve the efficiency of operator responses and reduce frustration as they don't have to respond to false alarms.

by AI, whilst applying a high compression rate to the remaining field of view — this minimises network bandwidth and data storage requirements.

Using the metadata

Edge AI cameras can provide metadata to third party software through an API (application programming interface). This means that system integrators and technology partners can use it as a first means of AI classification, then apply additional processing on the classified objects with their own software — adding another layer of analytics on top of it.

Resilience

There is no single point of failure when using AI at the edge. The AI can continue to operate even if a network or cloud service fails. Triggers can still be actioned locally, or sent to another

device, with recordings and events sent to the back-end when connections are restored.

AI is processed in near real-time on edge devices instead of being streamed back to a server or on a remote cloud service. This avoids potentially unstable network connections from delaying analytics.

Benefits for installers

For installers specifically, offering edge AI as part of an installation helps them stand out in the market, by offering solutions for many different use cases. Out-of-the-box solutions are extremely attractive to end-users who don't have the time or resources to set up video analytics manually.

AI cameras like the ones in the Wisenet X Series and P Series work straight from the box so there's no need for video analytics experts

to fine tune the analytics. Installers don't have to spend valuable time configuring complex server-side software. Of course, this also has a knock-on positive impact on training time and costs.

Looking ahead

Looking to the future, Uri Guterman says, "AI at the edge looks bright too, with more manufacturers looking at ways to broaden classification carried out by AI cameras and even move towards using AI cameras as a platform, to allow system integrators and software companies to create their own AI applications that run on cameras". "Right now, it's an area definitely worth exploring for both end-users and installers because of the huge efficiency, accuracy, and sustainability gains that edge AI promises," he concludes.

Alcatraz AI explains how facial authentication can solve the problem of proximity card shortages

The global chip supply chain has been in shambles since the pandemic started in early 2020, and it doesn't appear to be recovering any time soon. From cars being shipped without CarPlay to businesses that are unable to obtain proximity cards for security purposes, it appears no industry is immune.

Proximity cards and fobs are widely used throughout corporate enterprises. Users have likely used one before and may have simply referred to it as a badge. These badges are used for more than just a fashion statement.

Inside a proximity card, the cardholder's credentials are contained within which grant access to a controlled environment if the cardholder is authorised to access the designated space. For example, some individuals have locked business buildings, and only those with an employment badge, or employee proximity card, can gain entry.

While other businesses may have spaces that are only accessible

to certain employees with particular credentials. Therefore, not every employee's proximity badge would let them into these areas, only those with the appropriate credentials, which are stored within the card itself. Proximity cards function when the antenna inside the badge is powered when within range of a powered card reader. When the card receives power, it utilises radio frequency

(RFID) to transmit the data stored on the card to the reader.

Due to the RFID chip shortage and ensuing supply chain challenges, businesses have been unable to get proximity cards manufactured and delivered in a timely fashion. Without replacement cards, security infrastructure becomes at risk.

This is certainly an unprecedented time. And this is a problem that is not going to be solved immediately. As more employees return to the workplace, the demand for cards will likely increase - exacerbating the issue even more. Many businesses

are reviewing their security posture to determine if an alternative approach is feasible. Is there a way to improve security and make a safer workplace given these new constraints?

Many businesses have found using biometrics as a security method is not only a great alternative to proximity cards but also an enhanced security option. Unlike proximity cards that could be lost or stolen, biometrics use factors that are unique to each individual. The use of an individual's biometrics as their credential increases the security posture of their business.

Facial authentication is another tool in the biometric arsenal; however, unlike its predecessors, it offers hands-free, frictionless access. Tools like the Rock, developed by Alcatraz AI, can authenticate the face of individuals attempting to gain access to a physical space, with that of those on the allowlist, and allow or deny access accordingly. Not all facial authentication products are equal.

The Rock allows for



being done by devices placed across our physical world, "at the edge." Uri Guterman, Head of Product & Marketing at Hanwha Techwin Europe, believes that by not needing to stream raw data back to a server for analysis, AI at the edge, or "edge AI", is set to make AI even more ubiquitous in our world. "It also holds huge benefits for the video surveillance industry," he adds.

Here Guterman explains the reasoning behind this phenomenon and looks at how AI is being used today and how the technology can evolve in the future.

Sustainability benefits

AI at the edge has several benefits compared to server-based AI. Firstly, there are reduced bandwidth needs and costs as less data is transmitted back to a server (also, security benefits that are outlined below). Cost of ownership decreases, and there can also be important sustainability gains as a large server room no longer has to be maintained. Energy savings in the device itself can also be realised, as it can require significantly less energy to carry out AI tasks locally instead of

AI can make a video installation more flexible and scalable, which is particularly helpful for organisations that wish to deploy a project in stages. More AI cameras and devices can be added to the system as and when needs evolve, without the end-user having to commit to large servers with expensive GPUs and significant bandwidth from the start.

Improved operational performance and security

Because video analytics is occurring at the edge (on the device) only the metadata needs to be sent across the network, and that also improves cyber security as there's no sensitive data in transit for hackers to intercept. Processing is done at the edge so no raw data or video streams need to be sent over a network.

As analysis is done locally on the device, edge AI eliminates delays in communicating with the cloud or a server. Responses are sped up, which means tasks like automatically focusing cameras on an event, granting access, or triggering an intruder alert, can happen in near real-

time. AI cameras can also run multiple video analytics in the same device — another efficiency improvement that means operators can easily deploy AI to alert for potential emergencies or intrusions, detect safety incidents, or track down suspects, for example.

Video quality improvements

What's more, using AI at the edge the quality of video captured is improved. Noise reduction can be carried out locally on a device and, using AI, can specifically reduce noise around objects of interest like a person moving in a detected area. Features such as Bestshot ensure operators don't have to sift through lots of footage to find the best angle of a suspect. Instead, AI delivers the best shot immediately, helping to reduce reaction times and speed up post-event investigations. It has an added benefit of saving storage and bandwidth as only the best shot images are streamed and stored.

AI-based compression technology also works to apply a low compression rate to objects and people which are detected and tracked



a simplified automatic enrolment and uses deep learning algorithms to adjust as the lighting or individual changes over time. The Rock also includes anti-tailgating features to notify the appropriate staff if an unauthorised attempt is made to access a secured area.

Given the RFID chip shortage, many businesses are seeking alternative security methods. While biometrics is not the only option for access control; others seem archaic when compared to today's technology. A business could revert to a physical lock with metal keys, or install a pin pad requiring a code - yet this is unlikely. Now is the time to look toward the future and install systems, like the Rock, that offer uncompromising protection without the typical inconveniences.

Whether users are replacing a less reliable security measure or adding to an existing stack, installing the Rock is

simple. Affix the device near an access point, integrate it with their ACS, then begin the enrolment process.

The enrolment process itself is also just as easy as opening the phone. Stand in front of the device to let it analyse the points on the user's face. Once that is complete, the face is converted into binary code with 0 chance of being reconstructed into any sort of image. This is a crucial fact when comparing other biometric devices. The Rock has a proprietary algorithm that links the binary biometric data code with the profile already stored in the access control system of the building.

As mentioned earlier, proximity cards can be lost or stolen, so even businesses that use them for access control have found themselves seeking out other security methods to implement a multi-factor authentication approach. Given the enhanced security

biometric access control offers, many are choosing to add it to their security stack.

By doing so, even if a proximity card is lost, shared, or stolen, access would not be granted to an unauthorised individual because they would not pass the biometric portion of the access control requirements. Until the RFID chip supply chain can meet the demand, the harsh reality is that businesses must find an alternative way to authenticate individuals for physical access.

Implementing an entirely new security system can be a bit daunting. From researching what is best for the business, as well as its employees, to the actual implementation, and everything in between. Fortunately, there are biometric security businesses, like Alcatraz AI, that help make the transition to enhanced security as seamless as possible.

Why the retail business needs cloud video surveillance

Cloud-based video surveillance as a service (VSaaS) is in a period of significant growth at present. In fact, the global VSaaS industry was valued at \$2.2 billion in 2020 and is expected to reach \$4.7 billion by 2025.

Part of the reason for this growth is the increased adoption of the technology within

shops, restaurants, and other retail settings. A cloud-based video management system can be valuable for businesses of all kinds, but those in the retail or restaurant industries are often able to reap the greatest rewards. After all, such a system allows for remote video surveillance, and can provide the ability to coordinate surveillance efforts across mul-

tiple locations.

However, the benefits do not end there, and it can be important for those in the retail industry to understand precisely why having cloud video surveillance in place is so important. In this article, we take a more detailed look at five of the most significant reasons why your retail business should



invest in cloud CCTV.

One of the biggest reasons why a growing number of retail companies are investing in cloud video surveillance is the opportunity it offers to more easily manage multiple locations at the same time. This is achieved through the use of a remote video surveillance system, allowing you to access data from anywhere.

The cloud-based model provides business owners with the ability to access video footage and manage their video surveillance system using any compatible internet-enabled device. This is invaluable for businesses with multiple premises and means you can access all of the information you need from any of your sites, or even from home.

Through the use of a high-quality cloud-based video management system, it is also possible to protect your retail or restaurant business from threats like fraud and theft. This is primarily achieved by providing video evidence of behaviour that occurs within your shop, restaurant, or warehouse.

For example, the presence of CCTV cameras can help to deter opportunistic criminals, while the video footage captured can help to provide police and prosecutors with the evidence, they need to take action in the event that a theft does occur. Of course, video surveillance can also protect you from thefts carried out by your own employees too. An article written for Business.com highlights some of the main problems restaurant owners face in this area, including food theft, or employees stealing cash through short ringing, or false reports of dine

and dashes. All of these actions can potentially be deterred or detected through the intelligent use of cloud video surveillance.

While it is important to protect your business, you also need to keep your employees safe and cloud video surveillance can assist you in achieving this. When your staff know that your premises are being monitored, they are less likely to feel vulnerable, especially in quieter periods, with fewer staff on hand.

Aside from dangers posed to staff from criminals, CCTV can also help to you enforce workplace safety rules. These could range from safety procedures that apply at all times, through to enforcing more specific behaviours, such as mask wearing and social distancing in the wake of the COVID-19 pandemic. With a remote video surveillance system, you can monitor your premises from anywhere, at all times.

With traditional video surveillance systems, there are several ways that data can be threatened, including physical damage to storage media, hard drive failures, and data being overwritten. All of this can cause significant problems if footage of a particular incident or time frame is needed, but the footage can no longer be accessed.

With cloud-based video surveillance, this becomes less of a problem, because data is securely stored in the cloud. Different service providers will have different policies on how long data is stored for, but issues like physical damage to storage devices and accidental overwrites can be eliminated entirely, resulting in improved data secu-

rity.

Finally, another major reason why your retail or restaurant business needs to invest in cloud video surveillance is because it can be much more financially viable than using the more traditional on-premises approach.

As an article for CIO.com explains, despite its value within the retail sector, historic adoption of video surveillance has not always been high and the upfront costs associated with on-premises solutions have played a role in this. In the past, video surveillance has required investment in cameras, software, storage devices, and more. By contrast, a cloud-based video management system offers much lower upfront costs, because businesses do not manage the system on-site.

Instead, cloud video surveillance services are generally sold using a subscription-style model, with the business paying a predictable amount every month or year. Cloud video surveillance is experiencing significant growth and those in the retail sector are contributing to this for a number of reasons, including the low upfront costs when compared to on-site solutions.

Businesses can benefit from CCTV systems of this kind, because they help to keep staff safe and can protect against threats like theft and fraud. On top of this, remote access to surveillance data makes it easier to manage multiple locations at once, while data being stored in the cloud can help to keep it more secure as well.

Credits: Logan Bell, Head of Product, Cloudview (UK) Limited

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