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Intelligent IP cameras can enhance predictive analysis



For many years, video analytics have enabled end users to detect specific people or vehicles entering restricted areas, capture license plate information, scan crowds for specific individuals and much more. Today's Video Management Systems (VMS) and IP cameras are built with powerful processing capabilities, helping to drive the development of more advanced analytics to more accurately detect abnormalities in behaviors that trigger alerts – an important component of predictive analysis.

With this greater number and variety of data points available to security professionals, the trend toward integrated solutions is fuelling growth in the evolving science of predictive analysis. Differing from standard alert triggers, predictive analysis uses information gathered from a wide range of data sources including surveillance, access control, visitor management, incident management and oth-

er systems, evaluating the information against established behavioral models, taking into account, earlier incidents, effectively predicting the likelihood of a similar event in the future.

Note that predictive analysis does not always generate binary security events, but typically identifies occurrences such as irregular traffic patterns, motion detection during off peak hours or in restricted areas, and correlates this data with facial detection, access control activity or other system information to indicate anomalous activity or the potential for an incident of interest to occur. When this happens, the system can alert security professionals to take proactive preventive actions.

Camera-based analytics have improved significantly in recent years but these technologies remain largely reactive, providing valuable information for post-event investigation and follow-up. However, as the secu-

rity industry continues its momentum toward a more predictive model, intelligent IP cameras will play a key role in allowing security staff to take more meaningful, proactive actions to prevent incidents before they can occur.

Those cameras equipped with video analytics are already driving advancements in predictive analysis, by providing the means to more accurately detect incidents and events and turn those into inputs which can be a fast and highly informed response, potentially highlighting potential future risks before they can occur. The below real-world example illustrates the value of intelligent IP cameras in enhancing predictive analysis to improve security personnel's ability to take proactive rather than reactive action and avert threats.

For example, people-counting video analytics could be used to detect a large number of people gathering in a particular area during



off hours. This could be as benign as people gathering to celebrate a coworker's birthday or it could be something much more sinister, such as a group of disgruntled employees coordinating the theft of company assets and/or data. Without context, however, it's impossible to tell where on the potential threat spectrum this event would fall.

As the predictive solution begins gather-

ing contextual data for analysis, video analytics can determine whether an alert should be issued. Based on predetermined factors or analysis of prior events, such an off-hours gathering may be enough for the system to alert security staff to a potentially negative situation. The group's location could also be a factor, as a gathering in a conference or break room would be much lower priority than if it were

in a restricted area.

Alerts can also automatically trigger cameras to switch to higher resolution, initiate both on-board and remote recording, maintain focus on a particular area and/or entry point, and even launch facial recognition analytics. This is helpful for security management and staff when responding to an alert, providing a more complete understanding of the situation to de-

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Dear Reader

With smart cities coming up in several states across India, the demand for intelligent CCTV is huge. When deploying public area surveillance cameras on roads and intersections, the aim of most governments is reduce crime, traffic violations and prevent terrorism.

CCTV cameras being deployed in public places serve some basic fundamentals, such as increasing public confidence, increasing the number of detected offences (both criminal and traffic-related), and reducing the occurrence of incidents as well as the number of road traffic casualties. These objectives are best achieved by utilising the automated number plate recognition (ANPR) technology.

ANPR is a technology that uses optical character recognition on images to read vehicle registration plates to create vehicle location data. It can use existing closed-circuit television, road-rule enforcement cameras, or cameras specifically designed for the task. ANPR is used by police forces around the world for law enforcement purposes, including to check if a vehicle is registered or licensed. It is also used for electronic toll collection on pay-per-use roads and as a method of cataloguing the movements of traffic, for example by highways agencies.

Automatic number-plate recognition can be used to store the images captured by the cameras as well as the text from the license plate. Systems commonly use infrared lighting to allow the camera to take the picture at any time of day or night.

ANPR technology must take into account plate variations from place to place. For ANPR to work well the license or number plates in vehicles must be uniform, or in other words, the colour, width and height of the numbers and alphabets need to be uniform for the ANPR software in smart CCTV cameras and video management systems to be effective.

The Ministry of Road Transport and Highways (MoRTH) and Delhi Transport Department have made it mandatory for all vehicle owners to fix a high-security registration plate (HSRP) and colour-coded plate on their vehicles that have been sold before April 2019. The fine for not affixing HSRP plates on a vehicle can range from Rs 5,000 to Rs 10,000.

So, what is this HSRP number plate, and why does every vehicle owner in the national capital have to affix this on their vehicle?

HSRP is an aluminum-made “high-security registration plate” which is fixed on a vehicle using two non-reusable locks. A chromium-based hologram of Ashoka Chakra of 20 mm x 20 mm size is applied by hot stamping on the top left-hand corner of the plate in both front and rear plates to protect against counterfeiting. The permanent identification number (PIN) of a minimum of 10 digits is laser branded into the reflective sheeting on the bottom left-hand side of the registration plate with a letter size of 5 mm. The HSRP is linked electronically to the vehicle after it is fitted on the vehicle on registration.

The HSRPs comprises details like engine number and chassis number in a centralised database. The data helps in identifying a stolen car. The stored data along with a 10 digit PIN helps in identifying a stolen car. The HSRP plates are only issued once the vehicle owner passes on essential details like engine number and chassis number.

The prime reason why HSRP has been made mandatory is that the old number plates are quite easy to tamper with and can be misused by car thieves. Apart from this there was too much variation in their uniformity, with vehicle owners getting fancy number plates privately made with letters and numbers written in different fonts and styles other than those specified.

While the security features embedded within the HSRP deter thieves from stealing vehicles, their standardisation makes ANPR cameras and software to easily read them without many errors. However, while this is a step in the right direction, it's still a long way to the day when we will have all vehicles in the country with such licence plates.

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

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Clare Controls releases software update, new Auxiliary Touch Panel and suite of compatible hardware products



Clare Controls, maker of the powerful ClareOne wireless security and home automation system has released a ClareOne v1.2.10/9.1.5 software update that broadens the system's capabilities, including live surveillance camera viewing on ClareOne panels and the ClareOne app, as well as support for multiple third-party water sensors and shutoff devices.

At the same time, the company also debuted five powerful new products: the ClareOne Auxiliary Touch Panel, the ClareOne Wireless Repeater/Translator, the ClareVue Outdoor 40 Amp Z-Wave Switch, a designer brown-colored ClareOne Door/Window Sensor with Shock Detector, the ClareOne Wireless Ceiling-Mount 360-Degree Motion Detector.

“ClareOne's software

update builds on our promise to provide peace of mind. Paired with the release of multiple ClareOne hardware devices – including a new touch panel – that extend the range, functionality and accessibility of the system, these enhancements make the ClareOne system an even better value for businesses and homeowners that require a powerful, easy-to-use security and surveillance solution,” Choate said.

The new v1.2.10/9.1.5 software enables live display of feeds from the Luma 510 NVR, Luma IP cameras, the Clare NVR, ClareVision cameras and the Clare Doorbell on any ClareOne panel, auxiliary touch panel or in the ClareOne mobile app. With added support for Aeotec Z-Wave water sensors and door/window sensors, plus automatic water shutoff valves from Dome, Econet and

Homeseer, end-users can rest easy knowing their water lines are fully monitored and protected.

Additionally, the newly released seven-inch ClareOne Auxiliary Touch Panel extends user access by offering both wall-mount and tabletop operation with a proximity sensor that automatically awakens when a presence is detected, then dims after a user-specified time period. It can be powered through the included 120V power supply or over Cat5 with the Clare Touchpanel Power Extension Kit.

The immediately available new ClareOne Wireless Repeater/Translator performs dual functions, allowing integrators to extend the range of existing ClareOne security sensors by thousands of feet, or to translate and integrate existing wireless signals from Honeywell® 5800 series, 2GIG®, GE®, Napco®, Legacy DSC®, Qolsys®, or Interlogix® sensors. The module has its own battery backup and is fully supervised by the ClareOne Panel. It is an ideal item for integrators to keep in stock as it can help solve a range of on-site problems from RF interference to surprise equipment takeovers.

Also ready for ordering is the ClareVue Outdoor 40 Amp Z-Wave Switch, which provides a weatherproof outdoor junction to add control for fountains, pool pumps, spas, lighting, water heaters or other large load devices. It can support one large 277V device drawing up to 11,000 watts or two 120V devices. Through its included Z-Wave Plus Transmitter, it allows monitoring of outdoor devices, enables notifications, and allows new devices to be included in scenes, schedules and automations.

The ClareOne Door/Window Sensor with Shock Detector is one of the most popular sensors, and the new Brown-colored version offers even more appealing options to designers and users to serve any room need. It is in stock and ready to ship to integrators. The ClareOne Wireless Ceiling Mount 360-Degree Motion Sensor is a small, unobtrusive device with a long battery life and ability to mount on ceilings up to 12 feet high. With a range of up to 2,000 feet, it is an excellent choice to add discreet motion detection in commercial and small business environments.

Comelit extends security offering to deliver wireless intruder alarm system, Secur Hub



Comelit has extended its security offering to deliver a wireless intruder alarm system, designed to seamlessly operate with its inclusive app technology, allowing residents and

businesses to not only control their door entry, CCTV and home automation, but also now their intruder alarm. The Italian security specialist, known for its high specification solu-

tions, has launched Secur Hub, as an intruder alarm system natively connected to the Comelit Cloud, which includes both WiFi and LAN connectivity.

Secur Hub operates a high-performance two-way radio link between the control panel and the sensors. It allows up to 16 IP CCTV cameras with HD resolution to connect to the control panel for users to view in live stream mode via the Comelit app, and recording of 4 cameras on alarm events for visual verification. Francesca adds, “We are also conscious of simplifying the installation process to enable more installers the chance to offer this smart technology. Secur Hub's elegant

and functional design extends to all devices that communicate with the control panel and allows the system to be installed quickly. With the support of a built-in intuitive wizard it offers instant peace of mind security.”

Designed for quick installation, Secur Hub does not require ports to be opened on the router, even for the App, for both system management and for viewing any connected CCTV cameras. Via the app, users can set or unset the alarm system, check the status of each sensor and organise notifications or view the control panel event log.



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PRESENT

TOP INDIAN WOMEN INFLUENCERS IN SECURITY



Globally women are playing a key role in the advancement of the profession of security in all sectors, verticals and levels of the industry.

In order to recognise and honour the accomplishments, value and contributions of women in this vital sector of the economy, SECURITY TODAY & SECURITY UPDATE in association with InfosecGirls and WISECRA announce the “Top Indian Women Influencers in Security” recognition for the year 2021.

In 2020, this accolade was developed to help recognise women in security in India who made significant contributions in shaping the industry and shaped the path for future generations of professionals. 20 torch bearers were recognised from 272 nominations received in a virtual ceremony by the nation’s 1st, most famous & iconic lady IPS officer, Her Excellency, Dr. Kiran Bedi, the then Hon’ble Lieutenant Governor of Puducherry. Distinguished senior people from different sectors were carefully chosen as ‘members of the jury’ for this event.

For further announcements, please visit our websites:
www.securitytoday.in & www.securityupdate.in

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Intelligent IP cameras can enhance...

termine the appropriate course of action.

Alerts also initiate contextual analysis to determine the specifics of a situation. Technology can't accurately judge intent; it collects all available information to determine the level of severity of a situation and, in turn, what actions need to be taken – both in the immediate term and post-event.

In the case of a large after-hours gathering, data collected and correlated from additional systems and sources will provide fuller context. For example, access control data combined with people-counting may indicate that the number of people assembled exceeds the number of card swipes. While multiple people entering on a single card swipe is a clear violation of policies, it still may not indicate a threat. Several authorised individuals may have arrived at the door at the same time and simply entered together out of convenience. Using facial recognition both at the edge and within the VMS to compare those who entered against the database of authorised users will determine whether there may be a potential security threat

from unauthorised individuals being in a restricted area.

Once data has been gathered to provide greater context, predictive solutions analyse all available information to determine the level of the threat. At the same time, the system correlates information from intelligent cameras, access control, incident management and other sources to build a profile of either normal or abnormal behavior that will be used to analyse similar occurrences in the future that may or may not indicate a potential compromise.

Information from network-based calendar solutions may reveal that the gathering was simply a scheduled meeting or training. People-counting and facial recognition analytics combined with access control and HR system data could show that all of the individuals present are authorised to be in that particular area and that the discrepancy between the number of card swipes and individuals is indeed the result of tailgating. If this is the case, an email could be sent to employees to remind them of security policies.

However, if unau-

thorised individuals are found to be in the area, security staff would likely be dispatched to that location to determine the purpose of the gathering and ensure that unauthorised users are removed from the area in compliance with established policies. At the same time, the physical and IT access credentials of those in attendance can be temporarily deactivated to reduce the risk of insider theft. Additionally, intelligent cameras can employ analytics to detect whether objects have been removed from the area and isolate video of any such incidents for response.

As illustrated by the above example, intelligent video cameras play a significant role in more effective predictive analysis. Integrated security and surveillance systems with powerful video analytics can be deployed to improve security, lower risk, reduce fraud and transform traditional security operations from a simple reactive, to much more proactive function. The intelligence gleaned from each incident empowers security professionals with the opportunity to avoid potentially dangerous situations before they can even occur.

gle lens is able to show a head-to-toe image of visitors at the door and delivers optimum quality regardless of lighting levels. The camera's HDR feature adapts to varying degrees of brightness, while built-in infrared ensures images are captured and movement detected in complete darkness.

Notification settings are fully configurable to the requirements of the end user, and can be set to only notify users when movement is detected in certain areas with the

alert-zones feature. Elegantly designed and fully weatherproof, the unit is easy to install, thanks to its compatibility with a wide range of electrical installations from 8-24 volts all the way up to 230 volts.

Once in situ, the installer can quickly connect the doorbell to the Netatmo Security app via a Wi-Fi network, allowing for control from anywhere in the world. For added security, data is encrypted and remains on the device, meaning no information is shared

or kept by Netatmo on cloud storage.

The new doorbell also uses artificial intelligence algorithms to differentiate between a person and a harmless movement. If an intruder is present, the user will receive a 'Person detected' notification on their smartphone and a video of the event is recorded. From there, the homeowner can use the loudspeaker from their device to call out to the intruder and deter them.

Alcatraz provides Three Factor Authentication with Rock facial authentication platform



Alcatraz, the developer of secure frictionless access control products, has added Three Factor Authentication (3FA) to the Rock facial authentication platform to deliver the ultimate in protection for high security areas and zero trust environments.

"Three Factor Authentication using a biometric like facial authentication in the Alcatraz Rock platform is really one of the most secure ways to control access," said Alcatraz Chief Revenue Officer Tina D'Agostin. "At Alcatraz, we have worked to leverage the Rock to work as that third authentication factor so that data centers, government entities, nuclear plants, the military, and similar organisations can provide the secure protection they are required to deliver."

The Rock can be used for one, two or three factor authentication. In one-factor authentication, the Rock is the primary access control device and facially

authenticates authorised users. In two-factor authentication, the Rock is used in combination with a badge reader to grant access. In three-factor authentication, the Rock is used along with two additional access control devices, like a badge reader and a PIN reader to verify employees' identities.

In this scenario, the user needs to enter personal data, like a PIN or password, utilise a physical pass, like an ID badge, and provide biometric identification, like the facial authentication conducted by the Alcatraz Rock. It is the combination of these three distinct criteria that delivers 3FA, which is the ultimate in access control. The Alcatraz Rock offers a touchless and secure physical access control solution that works with any access control system.

It replaces or augments badging as a credential with facial recognition, 3D sensing, and artificial intelligence to enable highly secure

and frictionless entry into physical locations. The Rock uses machine learning for increased security and accurate tailgating detection, while intelligently enrolling employees as they are badging in, which eliminates the headaches associated with traditional onboarding.

"The addition of 3FA is an exciting enrichment to the Alcatraz Rock platform as it is our goal to deliver autonomous access control that offers security that is unrivaled and is more affordable than security guards or turnstiles," said D'Agostin. A number of renowned system integrators and security organisations - including Johnson Controls, PSA Security Network, SAGE Integration, and TRL Systems - have incorporated the Alcatraz Rock into their solutions portfolio. To learn more about how Alcatraz Rock can provide multi-factor authentication for an organisation, one can sign up for a demo on the company's official website.

Legrand launches a smart video doorbell equipped with high definition wide angle camera



Installers across the UK can further enhance their security installation capability, after Legrand unveiled its first ever smart video doorbell to join a suite of connected products from its User Interface business unit.

Allowing end users to

see visitors at their door from anywhere in the world, Legrand's smart doorbell is compatible with Apple HomeKit, Amazon Alexa and Google Home. Part of Legrand's popular Netatmo smart home devices range, the new doorbell

offers long-term savings with no subscription or update costs, providing installers the option to integrate into their ever security-conscious customers' homes.

Equipped with a full HD 1080p camera, the diagonal 140° wide-an-

FLIR Elara FR-345-EST helps in bringing normalcy



As employees continue returning to the office, travelers start flying again, fans slowly return to stadiums, technology that focuses on maintaining health and safety in semi-public and private venues remains crucial to slowing the spread of COVID-19.

In response, FLIR Systems has announced the FLIR Elara™ FR-345-EST, a fixed-mount radiometric thermal security camera that measures elevated skin temperature (EST) accurately without contact or the need for a reference temperature source. This system provides a safe and effective environment at high-traffic airports, stadiums, commercial buildings, and manufacturing facilities to quickly assess skin temperature at access control points. The Elara FR-345-EST automatically guides to the part of the body that most closely correlates to core body temperature: the inner-canthus (inner eye) of a human face—without sacrificing accuracy or the ability to maintain social distancing guidelines.

The Elara FR-345-EST camera can serve as a stand-alone system without the need for desktop software or as part of a broader ac-

cess control program designed to improve people flow for elevated skin temperature screening while simultaneously improving the accuracy of finding the inner-canthus, balancing the needs of personal safety and convenience. It also integrates with a variety of third-party VMS, including FLIR United VMS, to enable fast integration within the existing security infrastructure to avoid adding risk to network IT security.

Through the use of integrated algorithms and a convolutional neural network (CNN), as individuals pass through the screening process the interactive on-screen prompts assist with eyewear identification, proper pose, positioning, and head orientation. This enables the camera's on-edge artificial intelligence to automatically locate and measure the temperature at the inner canthus within an accuracy of $\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$).

The improved AI capabilities with the on-camera software also improves the screening assessment time to an average of one-second-per-individual after the subject is in a stationary position in front of the camera and once

eyewear has been removed, helping to keep lines of workers, spectators, guests, students and patients moving and to eliminate any potential crowding at checkpoints. The self-screening operation provides instant go/no-go feedback and the adaptive alarm threshold feature can be used to minimize false alarms to account for natural body temperature fluctuations throughout the day.

The Elara FR-345-EST reduces setup time and calibration while improving real-time operator decision-making with on-edge analytics. Now the user has the ability to simply self-start by connecting the camera to a smart monitor with a web browser to view a live user interface. While the camera removes the need for a dedicated operator specific to EST frontline screening, integrators, customers and their staff can still expect a seamless user experience.

The camera can also be customized to meet specific integrator or customer needs. In addition, FLIR offers extended training and support for customers and users to properly setup, operate and maintain the system.

nels. With Wisenet7 SoC, Hanwha Techwin's most powerful chipset to date, at its heart, the PNM-9022V's 4 sensors, which come with 2.8mm fixed focal lenses, are able to capture high definition colour images when the lighting level is as low as 0.03 Lux.

Lens Distortion Correction (LDC) technology utilised by the PNM-9022V corrects the distortion created through the use of wide-angle lenses. This delivers images which more closely resemble what is seen through the human eye. As part of the

This further enhances the camera's ability to prevent hackers from tampering with its firmware.

2 Micro SD/SDHC/SDXC slots enable up to 1Tb of video or data to be stored at the edge should there be disruption to the network. Video of any incidents, which potentially might have been lost on the recorder side, can therefore be retrieved from the camera when the network connection has been restored. Minimising the time needed to be spent on site, the PNM-9022V has a hinged backplate to provide easy access for ca-

of the PNM-9022V, the PNM-9322VQP with 4 sensors and an integral PTZ camera, is also designed to provide a highly cost-effective solution for detecting and tracking objects over wide open areas.

The option of exchangeable 2 and 5-megapixel lens modules enables the camera's sensors to work together to seamlessly capture 360° images of up to 20-megapixel resolution. In addition, the device's PTZ camera element can be configured to zoom in and track a moving object



fast-growing number of new cameras which incorporate the UL CAP certificated Wisenet7 chipset, the National Defense Authorization Act (NDAA) compliant PNM-9022V is packed with an impressive list of technologies designed to protect it from cyberattacks. It also benefits from a Hanwha Techwin proprietary device certificate issuing system, which embeds unique certificates into Wisenet7 products during both the development phase and manufacturing process.

ble connection purposes. Installers have to simply install the back plate, clip the camera in place and tighten two screws.

Additional features include a suite of built-in Intelligent Video Analytics (IVA), heatmap video analytics, support for Wisestream II complementary compression technology, as well as H.265, H.264 and MJPEG compression formats; PoE+ and designed with IP66, IK10 and NEMA4X ratings. Coinciding with the launch

or move to a user defined preset position when the line crossing detection function of the multi-directional camera detects activity. It is also able to 'hand-over' to cameras covering adjacent areas to ensure operators can continue to observe people or vehicles as they move out of its field of view. Equipped with the Wisenet7 chipset, the NDAA compliant PNM-9322VQP supersedes the highly successful PNM-9320VQP, with the additional benefit of providing audio support.

Hanwha Techwin expands multi-directional camera line

Two new Wisenet cameras equipped with Hanwha Techwin's latest Wisenet7 chipset have been added to the company's portfolio of multi-directional cameras. The 4-channel PNM-9022V utilises alpha blending

technology to stitch the overlapping images captured by its four full HD sensors into a seamless 8.3-megapixel 209° image, thus ensuring an operator never loses sight of a person or vehicle moving across a wide area.

Superseding the highly successful Wisenet PNM-9020V, the PNM-9022V can also be used to capture 180° images, with operators able to take advantage of digital PTZ functionality across two of the camera's chan-

EZVIZ C3N Smart Wi-Fi Camera: An Ideal Choice for Outdoor Premises

It's difficult to find an outdoor wireless security camera, which works well in outdoor conditions. Due to poor Wi-Fi connectivity most wireless cameras are meant to be installed in the close proximity of the Wi-Fi internet router. To overcome the above mentioned challenges EZVIZ has come up with C3N smart wireless camera. The C3N is your ide-

al choice to secure your outdoor premises – parking areas, gardens, lawns, lobby, entry/exit points, pathways, etc.

C3N is a 1080p Full HD resolution wireless camera. This helps to provide a super sharp, high quality video during the day and as well during the night. C3N is equipped with two built-in spotlights and

two infrared (IR) lights which helps to provide sharp color images even in pitch-black darkness and more than just helping produce color night time imaging. The spotlights can also be used as floodlights to brighten hidden areas around your property.

The C3N has Smart Night Mode wherein the C3N will automatically



switch from black-and-white monitoring to color monitoring, turning on the spotlights when it detects human movement. The alert video will be recorded in full-color, so you get all the details needed. The C3N has the embedded AI algorithm intelligently which detects the motion of humans in real-time and you will be alerted immediately on your smartphone.

The C3N is powered by advanced PQ technology, which senses the actual environment and helps in automatically adjusting the image brightness to avoid overexpo-

sure. As C3N has two inbuilt spot lights, the camera will automatically trigger and flash two spotlights to scare off and deter any unwanted visitors. What's more, when the person turns their head to the flashing light source by instinct, they will be clearly recorded on camera.

The C3N's built-in noise-cancelling microphone picks up clear audio up to 5 meters (16.4 ft.) away. Now you can hear and see what's happening in your backyard no matter where you are. The C3N's whole metallic enclosure provides stronger protection and

enhanced heat dissipation. Additionally, with an IP67 rating, it can withstand rainy, sunny, stormy, and even snowy days.

C3N is empowered with an advanced H.265 video compression standard, which helps to achieve the best video quality with only half the bandwidth and half the storage space compared to the previous H.264 video compression standard. The camera has a Micro SD card slot wherein a MicroSD Card can be inserted of up to 256 GB.

cle, recognise its licence plate and relevant information including vehicle type, colour, brand, and direction of movement, which can be addressed to the authorities in real-time or stored on board. Incident detection helps to improve overall driving standards, which ultimately reduces the number of accidents, improves road safety and further evens traffic flow.

Employed with Deep Learning algorithms, the

camera is able to recognise a much higher number of licence plates and with higher efficiency than conventional ANPR systems. Its GMOS sensor further ensures brighter and smoother images to be reproduced in challenging lighting conditions, especially in low-light environments. The camera's embedded supplemental light features a 16-bead light array, offering an IR range of up to 40 metres at

night.

As all of these functionalities are integrated, the single product itself outperforms conventional ITS products with space-saving and less cabling for easier installation. It supports flexible pole- or side-mounting, which makes onsite configuration effortless. The Hikvision All-Rounder ITS camera is ideal for various scenes such as urban roads, highways, tunnels and toll stations.

Hikvision announces the launch of All-Rounder ITS camera for improvement of road safety and traffic flow



Hikvision, an IoT solution provider with video as its core competency, announced its latest traffic product offering - the All-Rounder ITS camera - designed to improve road safety and optimise traffic flow. As the name implies, the camera encompasses different skills and abilities, boasting speed detection, traffic violation detection, automated plate recognition, and vehicle attribute analysis in one housing.

"Hikvision is always pushing the boundaries of video technologies. Beyond the visual range that is perceived by video cameras, the abilities to understand other kinds of "senses" would allow even more precise monitoring and reporting of

events or accidents," says Frank Zhang, President of International Product and Solution Center at Hikvision. "This is multi-dimensional perception, a trend that we think will affect the security industry in the future."

The new ITS camera is designed and developed with this multi-dimensional concept in mind. It is Hikvision's first camera to integrate three otherwise separate modules in one unit with no compromise on performance, making the camera neat and flexible to be deployed for demanding environments, all in an easy and cost-effective manner. The product provides an HD camera, speed radar,

and light array inside one housing.

Specifically, it works with a multi-tracking radar that continuously monitors up to two or three traffic lanes - depending on the camera model, and identifies the speed and position of objects in the monitored area at a speed of up to 300 km/h. If a vehicle violates the speed limit, the embedded radar triggers the connected camera and a picture is taken of the vehicle and its licence plate.

In the event of infringements of traffic rules such as wrong-way driving, improper lane usage, or even failure to use a seat belt, the camera will capture images of the corresponding vehi-

Synectics COEX 4K camera range provides sharp image quality for critical monitoring



Synectics has unveiled details of its new COEX™ 4K camera range. The launch makes Synectics the first technology specialist to guarantee +70°C certification and 4K capabilities for fixed, PTZ, and TriMode models.

The COEX range offers the most comprehensive suite of camera stations on the market for hazardous-area (and safe-area) applications. "Our latest COEX 4K camera stations deliver exceptional image quality, which means users can zoom much further into an area of interest than ever before. This capability provides a greater level of interrogation of live and recorded footage with precise, crisp detail reducing the risk of missing vital infor-

mation. Another benefit of the new 4K camera range is that it also delivers improved situational awareness across a more comprehensive coverage area than HD, providing sharp image quality for critical monitoring," stated Darren Alder, Divisional Director for Oil & Gas at Synectics.

The new COEX camera range delivers outstanding image clarity, audio support, region of interest encoding, and cybersecurity essentials, including 802.1x port-based network access control, HTTPS web interface, and encrypted media streaming. Fully compliant with ONVIF Profile S and T requirements, they integrate seamlessly with existing video management systems, including Synergy,

and provide advanced video streaming options.

Synectics' COEX 4K cameras also offer advanced, simultaneous multi-streaming of footage in H.264 and H.265 encoding formats providing triple-stream for 4K and quad-stream for TriMode variants. This feature has some compelling benefits for customers seeking to maximise bandwidth and minimise storage costs. "It means, for example, that H.264 can be used for live streaming, with H.265 for high-quality recording with reduced storage", explained Donald. "For large-scale projects, this is hugely beneficial." "With the 4K model, the third stream can be beneficial as an additional stream for remote viewing where low bandwidth constraints are present such as radio links. All COEX camera stations are manufactured from corrosion proof, electro-polished 316L stainless steel, and are performance tested before dispatch at Synectics' dedicated UK facilities. With a certification temperature range from -55°C to +70°C, they provide continuous, reliable image capture in all lighting, weather, and operational conditions.

New generation Picoline ultracompact domes from Dallmeier

The capabilities of miniature surveillance cameras are growing constantly, and with the new Dallmeier Picoline 5050 series, users in various industries can enjoy the benefits of a camera system which delivers 5 MP

performance in an exceptionally compact format. Intelligent functions offer further added value. The cameras are available in in-ceiling mount, surface mounted and box housings. The external diameter of the surface-mount-

ed variant is barely 93 mm.

The HDR function offers significantly more details in images with high dynamics than the classic digital WDR. Other special features in-

PICOLINE

Dallmeier



The new camera series 5050

clude the combination of video analysis and search functions, the “Smart-backfill” technology to compensate for network outages without an extra SD card and fully automated, and a portfolio of features and functions for data protection and data security.

The 5050 series dome cameras are available with compact, sturdy housing variants and have a fixed focus lens with a focal length of 2.5 mm. The in-ceiling variant is designed especially for discreet installation in suspended ceilings. Meanwhile, the surface-mounted variant can also be installed inconspicuously with a tiny footprint on ceilings or walls. Because of its particularly compact construction, the box version is also ideally suitable for discreet or unobtrusive

installation and in weather-proof housings for use outdoors. The 5050 series box camera is available in two variants, with a varifocal lens having a focal length of either 3 – 10 mm or 12 – 40 mm.

The high resolution of the sensor and the sophisticated image processing technology enable image capturing in real time with a frame rate of 60fps (1080p/60) or up to 30 fps with a resolution of 4MP. The integrated real-time video analysis uses highly-advanced analysis functions such as intrusion detection or line crossing to detect movement and objects in the uncompressed image. When used with Dallmeier recording systems and client software, the “Smartfinder” function also enables semi-automated searching for events through the rapid

analysis of stored objects and metadata. As ON-VIF-compatible systems (Profile S and Profile T), the cameras can also be incorporated in many different third-party video management systems.

The camera is equipped with a RAM memory, via Dallmeier “Smartbackfill” which is activated in the event of a brief network outage. The video stream is transmitted and then integrated automatically and seamlessly in the recording as soon as the connection is restored. The cameras of the Picoline series include comprehensive security features which can be adjusted flexibly to reflect the requirements of each customer, and they offer a full portfolio of data protection and data security functions.

AI combines with NVR for all in one solution



The newest addition to the Motorola video security and analytics portfolio, is the Artificial Intelligence Network Video Recorder or AI NVR, which combines the traditional Avigilon NVR with the capabilities of the Avigilon AI Appliance to provide enterprises with a solution that fulfills their analytic, storage and cyber security needs. The solution is cloud-connected, en-

abling remote management through Avigilon Cloud Services so that users can easily perform software upgrades and download new applications.

Rather than replacing an entire video security set up, users can now connect their existing camera system with the AI NVR to gain access to the Avigilon advanced analytics. This includes Avigilon Appearance

Search Technology and Object Detection and Classification, as well as No Face Mask Detection and Occupancy Counting from the Covid-19 insights suite.

The AI NVR is a comprehensive solution, enabling users to adopt the power of Avigilon’s neural network-based analytics while running on a hardened operating system that can be managed remotely.

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HENSOLDT UK launches SPEXER 600 ground-based surveillance radar



HENSOLDT UK has announced the launch of SPEXER 600 multi-mission, X-Band ground-based surveillance radar utilising SharpEye solid-state transceiver technology.

Building upon the excellent pedigree of well-established HENSOLDT products and technologies, SPEXER 600 complements the SPEXER family of Active Electronically Scanned Array or AESA radars, offering a cost-effective and truly crew portable field deployable

solution.

Designed to meet user requirements to detect multiple threats in the modern battlefield or security environment, it offers a number of modes allowing multiple functions to be carried out by a single radar sensor.

The built-in tracker reduces the need for additional electronic units, making it a lightweight, crew portable unit that can be set up in a few minutes. In fixed installations, the low weight

allows it to be installed without any specialist masts or structures. Controlled either locally or remotely from a command centre, SPEXER 600 can be easily networked with other sensors. “SPEXER 600 from HENSOLDT UK is the solution for today’s complex operational needs on the battlefield, or in securing the nation’s critical infrastructure against multiple threats,” stated Adrian Pilbeam, Head of Sales, Ground and Maritime Surveillance Radar.

S-Bahn Berlin GmbH sets the smart transport standard in Berlin with Synectics operational management system integration



The first phase in a pioneering smart transport project to transform security, passenger service, and operational management across Berlin's S-Bahn rail network has officially gone live. Teams based at S-Bahn's '4S' operational headquarters are now, via the latest developments in Synectics' Synergy hybrid cloud software platform, able to connect, respond, and collaborate with passengers and staff on-board trains, at stations, and with field personnel working anywhere across the network.

The new capabilities, including an innovative mobile application, mark a revolutionary step forward in the way operational command, control, and communications are carried out within urban rail environments. The project, which went live as scheduled on 1 January, is the result of an innovative partnership between S-Bahn Berlin GmbH (a subsidiary of Deutsche Bahn) and command

and control solutions expert, Synectics. The two companies' combined ambition has led to the development of a tailored system that delivers a positive customer experience both now and well into the upcoming decade.

Leveraging powerful tools to form custom API gateways, Synergy integrates to and interoperates with S-Bahn's proprietary systems, as well as all third-party technologies, devices, and communication solutions vital to passenger service, safety, and security. This is achieved in real time, and continuously informed by sensor data obtained from integrated systems crucial to operating safe and efficient passenger services.

The new Synergy mobile application will enable S-Bahn's workforce to receive automated task assignments based on their role, skills, and location, and to directly update the system on their delivery of those tasks, the sophisticated level of

integration and interoperability achieved is unprecedented.

From fulfilling a planned maintenance task to sending people with the most appropriate training to deal with an evolving security or safety issue, Synergy will facilitate the rapid communication, deployment, and appropriate action of different teams. This will equip S-Bahn to process and react to events within predefined response times, and to manage its workforce as effectively as possible.

The project is scheduled to continue during 2021, with the two organisations building further technical capabilities and driving ahead with continuous improvement. Key enhancements will see extensions to the workforce management functionality and more developments to improve operational efficiency within incident and task management assignments.

video.

"The systems had been installed in an ad hoc fashion, and in some instances needed upgrading as they were no longer really fit for purpose," says Glynn Gordon, managing director of retail security systems experts Maxtag, who were called in by Fuller's to address the security issue.

"Fuller's wanted to unify all of its locations within the estate over time," he says. "The aim was to bring everything onto one platform, whilst having an upgrade path for new and refurbished sites going forward, utilising IP camera technology." A key consideration in the project was that while there was no doubt the existing equipment would need to be upgraded, the costs of re-cabling each site looked prohibitive – not to mention difficult to achieve in practice, given the way many of the buildings were constructed.

To overcome the challenges posed by this ca-

ultra-low light recording and super-efficient bandwidth and storage usage. The very latest iteration of the Turbo HD range, Turbo 5.0, incorporates Artificial Intelligence-powered technology to boost colour performance even in the lowest light conditions, and to automatically detect, identify and extract relevant images from vast video datasets, saving time and resources. For the Fuller's project, Maxtag would be using a variety of Turbo cameras, and initially utilising the Turbo DS-7316 digital video recorders, which provide 16-channel HD recording and storage, and support analogue, HD-TVI, and IP cameras, a key requirement of the extensive ongoing project.

Maxtag's plan was that the cameras and recorders could be upgraded in stages. "As and when cameras or recorders failed or were beyond economical repair they could be swapped out," Gordon says. "The recorders could also be networked to HQ for

don says," which makes it very easy for managers and staff to quickly familiarise themselves and operate as required." The Hikvision network video recorders are both 16 and 32-channel models and are capable of connecting to 160Mbps of incoming bandwidth. Maxtag's plan was agreed upon and put into place, and as a result Fuller's has now converted more than 85 pubs and hotels over the last 18 months using a combination of Turbo and IP systems.

"The clarity of images has vastly improved and on a few occasions has been instrumental in helping the police with evidence when incidents have occurred predominantly outside the premises," Gordon says. "The group now has a planned migration path going forward and takes advantage of the latest Hikvision developments as they are released. That means they're on top of the benefits of the newest technology without the need to begin the whole upgrade process again."

The ongoing project



Maxtag and Hikvision collaborate on HD IP video surveillance system to secure Fuller's estate

Fuller, Smith & Turner plc (Fuller's) is an independent family-owned regional brewer and premium pub operator, founded in 1845 in Chiswick, West London. It is based at the historic Griffin Brewery in Chiswick, where brewing has taken place continuously since 1654. Fuller's is listed on the London Stock Exchange.

Renowned as the home of such famed ales as the iconic London Pride, Frontier Lager, ESB and 1845, Fuller's produces a variety of cask and craft keg beers supported by a chang-

ing seasonal range. The company owns Cornish Orchards, a craft cider maker producing a range of award-winning ciders and premium soft drinks, and Nectar Imports, a wholesale drinks business. In February 2018, Fuller's also acquired Dark Star Brewing, a craft cask brewer based in Sussex.

Fuller's also owns and operates over 380 pubs, inns and hotels across the South of England. These include more than 200 Fuller's managed pubs and hotels, and over 170 tenanted pubs, with the accommoda-

tion on offer consisting of in excess of 780 boutique rooms. Fuller's pub estate stretches from Brighton to Birmingham and from Bristol to the Greenwich Peninsula.

With such a wide range of locations, Fuller's decided that the time had come to upgrade and synergise its security surveillance systems. In place across those facilities were a diverse range of analogue equipment from a myriad of manufacturers. In most cases these legacy systems were offering poor, low resolution images and no remote access to onsite

bling conundrum, Maxtag proposed supplying and installing Hikvision Turbo HD systems to those Fuller's sites where an upgrade was required for the cameras, the recorder, or both. "This would allow the group to record 1080p HD images utilising the existing cabling," Gordon says.

Hikvision's Turbo HD range of products brings high definition clarity to analogue surveillance systems. The Turbo products make the very most of legacy cabling, delivering innovations including

remote access when recording evidence for the police if an incident occurred." While the Turbo equipment would go into the existing sites, any new or refurbished Fuller's pubs and hotels would have Hikvision IP cameras and NVRs installed, capable of recording images at 3 or 4-megapixel HD quality, and all networked for remote access.

"The beauty would be that both the Turbo HD and the IP systems would have the same familiar operating systems across the group," Gor-

has been warmly welcomed by Fuller's. Oliver Boardman, Head of Digital & IT Operations, said: "We have been very pleased with the progress that we have made with Hikvision and Maxtag over the last 18 months. We have an increasingly standardised estate with regards to CCTV, which is helping to reduce faults and improve the service that we can provide to our pubs. With the need to protect privacy becoming more critical, we expect centralised management to become increasingly important."

South African mine helps keep safe with Invixium biometric solution

The Eastern Platinum Limited (Eastplats) mining company in South

Africa has deployed the Invixium IXM Titan with enhancement kit at their

Crocodile River Mine. This deployment comes in response to a growing



global need for touchless access control and temperature screening due to Covid-19.

The local deployment of IXM Titan was handled by South Africa-based integration specialists, Bluewhale Digital. Bluewhale Digital has 35 years experience in the South Africa mining sector, and after assessing a number of products, chose IXM Titan for its specifications, build quality and ability to handle the unique challenges posed at the mine.

Mining operations like Crocodile River Mine require extremely rugged security equipment. Invixium's IXM Titan is crafted with an all-aluminium body and a Corning Gorilla Glass LCD screen to withstand the harshest environmental conditions, from exposure to dust and sand, to high impacts caused by nearby mine blasts. With an existing HRMS installed, Eastplats requires full feature integration with their time and attendance access control hardware. Shift schedules and breathalyser results need to be checked to enter the mine, and Titan's time tracking data would be used to calculate payroll. Further, Eastplats's

Covid-19 response demands that temperature screening and mask detection be added to its access control protocol for thousands of employees and visitors at every shift, adding complexity to an already-intricate integration.

IXM TITAN with Enhancement Kit can touchlessly authenticate and temperature-screen 12 to 15 users per minute. Thousands of employees and the overall business risk monumental financial losses from delays in entry; thus, speed is a top factor in biometric hardware selection.

"Our concern was for the safety and wellbeing of the Eastplats employees as well as addressing the large amount of time spent on collation and reporting for regulatory requirements," said Matthew Simpson, Director at Bluewhale Digital. "In the midst of a global pandemic, we needed a way to safely and reliably move 500 people through turnstiles during shift change. We needed to do it with no physical contact, and in line with South Africa's lockdown regulations."

Using IXM Titan Bluewhale Digital was able to integrate em-

ployee identification and touchless core body temperature scanning, with Eastplats' existing time and attendance system and their multi layered security infrastructure. This, along with an automated system for restricting access until a COVID-19 declaration statement was signed by all those entering the mine, ensured Eastplats received a fully integrated solution that reduced paperwork and reporting time, and prioritised the health and safety of all mine employees.

Following a successful proof of concept trial with four IXM TITAN with Enhancement Kit units, Eastplats plans to add additional Invixium solutions at more entry points to Crocodile River Mine. Due to the ease of installation and integration with their existing system, Eastplats is highly satisfied with the increase in productivity and peace of mind provided by the Invixium solution.

Invixium is represented by its authorised distributor Pyro-Tech Security Suppliers, located in Johannesburg, and Invixium's presence in South Africa has grown significantly since its regional launch in 2019.

ODSecurity provides Soter RS 250 full-body scanner to enhance prison security at Rancagua Penitentiary Complex

The Chilean Minister of Justice and Human Rights, Hernán Larraín, recently inaugurated the new Soter RS 250A Body Scanner at the Rancagua Penitentiary Complex in Chile, which will raise the security standards of the prison facility. The Soter RS 250 is a Full-Body Scanner, that uses X-ray technology to allow the rapid detection of prohibited items that could be smuggled into the prison. To facilitate inspection the scanned image can be managed through various effects and filters, such as sharpening, embossment,

multi-touch zoom functions, brightness and contrast.

The image that the Soter scan delivers is similar to that of a medical X-ray, although the Soter technology uses 1000 times less radiation than a medical X-ray. The ANSI N43.17 international certifications which the Soter adheres to, are even stricter than the current Chilean radiation safety standards.

In addition, the system calculates the accumulative radiation dosage a scanned individual

is exposed to, (administered by the Gendarmerie Health Department) which is tracked by an implemented biometric reader. The system generates quarterly reports for the Instituto de Salud Pública – (ISP – The Chilean public health institute). Also present at the opening ceremony were the national director of the Gendarmerie, Christian Alveal, together with the Minister of Justice of the O'Higgins Region Bárbara Perry, among other authorities.

The Rancagua Pen-

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itentiary Complex is the first prison under concession to have this technology, joining the state criminal units of; CPF Arica - Female Penitentiary Centre, CP Arica, and CP Valparaíso - Penitentiary Complexes, CDP Santiago Sur – Preventative Detention Centres, High Security Prisons, Colina I, Colina II and CCP Temuco Penitentiary Compliance Centres.

After the inauguration, the Minister of Justice and Human Rights, Hernán Larraín, pointed out that "This tool is extremely effective in detecting prohibited ele-

ments, increasing security inside prisons, since it allows a thorough body search to be carried out on all persons who enter the premises, whether they are officials, lawyers or family visits, but without giving an invasive treatment in the inspection procedure, eliminating manual inspection and thus guaranteeing the integrity of the people."

The national director of the Gendarmerie, Christian Alveal, added that "It is very relevant to have this type of technology inside the penal units, as it improves and optimises internal pro-

cesses, where detection capacity contributes to guarantee comprehensive security of the enclosure. In addition, it allows a non-invasive treatment in the inspection process, guaranteeing the integrity and dignity of the people who visit those deprived of liberty."

Speaking from their Headquarters in Leeuwarden, The Netherlands, Mr. van der Veen said of the installation; "We are delighted to have been awarded this contract and to be part of increasing security across the Chilean Prison estate."

Charity Vision protects its premises with Honeywell Le Sucre wireless security system



Vision is a Christian charity based in Rossendale, Lancashire, which aims to build a more positive youth culture. The charity was first established in 2002 and is run entirely by volunteers, who provide events, education opportunities, and support for local children and young people. Its premises, Woodlea Mission, is a converted chapel on a residential street in Rossendale.

When the local community first gifted the 126 year old chapel to Vision, it was in a poor state of repair, with no existing utilities. Like many conversions the building has an untraditional layout, with a number of small rooms on different levels that can be accessed by staircases at each end of the building.

With limited funds, the charity set about refurbishing the building and creating a modern community centre. Following extensive building work, the charity decided to install a wireless security system to secure the premises and protect staff and visitors.

With no staff permanently on site, the charity needed a security system that would allow them to remotely monitor the premises. The security system would also need to accommodate a number of different users who would have access to the alarm code.

“When researching a wireless security solution, we looked at a number of systems from different companies. We

needed a system that could be monitored remotely, but was also easy to operate by any person,” said Nathan Shepherd, Director of Vision.

After careful consideration, Vision decided that Honeywell’s Le Sucre® wireless security system best suited its needs. In addition to the intruder alarm control panel, the charity required a number of peripherals, including a wireless motion sensor with built-in camera, a typical motion sensor as well as an internal sounder, wireless bell box, door contacts, and SMS functionality for instant notifications.

“One of the great benefits of the Honeywell system are the prox tags that we use to set and unset the alarm,” said Nathan Shepherd. “We have a number of volunteers who need access to the building, so we were able to give them their own key fob which allows them to easily operate the alarm. This provided us with peace of mind as we knew that PIN codes couldn’t be shared or forgotten, and it has the added benefit that we can monitor who has entered the building at any given time.”

The Advantages

- With Le Sucre’s system remote self-monitoring is easy. Using the motion sensor with built-in camera Vision has the ability to view the chapel at any time, and can easily verify if a security alert is a false

alarm or not and respond appropriately and in a timely manner. The system offers peace of mind that the premises are totally secure, and the contents are safe.

- Installation made easy: With limited funds, the charity relied on a local volunteer with some electrical experience to install the system. The Le Sucre system is quick to install and easy to programme, even by a non-technical person.
- Unobtrusive design: With an unobtrusive design, the Le Sucre® system fits easily into small spaces and seamlessly into any modern interior.
- Partner of choice: The competitive price point and ability to add additional peripherals made Honeywell’s Le Sucre the ideal choice for Vision. Honeywell’s reputation also provided peace of mind for Vision’s decision maker, knowing they were purchasing quality equipment from an established industry player.

The installation of the Le Sucre® system has already paid off for Vision. When an alert came in late one night, the charity used the CAMIR camera PIR to remotely view the premises, and confirm that it was simply a false alarm. The system was reset remotely, completely negating the need for anyone to physically visit the premises.

Nonprofit leverages VIVOTEK cameras to monitor wildlife

Nu-Sun Cinema is a non-profit company based in Winnipeg, Manitoba, Canada. Their goal is to educate people about wildlife, and they hope that by sharing their experiences it will inspire others to learn and appreciate the wonders of nature around them. Population of American Kestrel Falcons is on the decline partly due to loss of habitat. In an effort to help increase the population of these magnificent birds, Nu-Sun Cinema built custom nest boxes. Installing cameras inside the nest boxes would allow for conducting valuable research about breeding pairs and the rearing of their brood.

Observing the falcons’ activities needs to be non-invasive, ensuring the least amount of disruption while providing the viewers the opportunity to collect data regarding their natural behavior.

Nu-Sun Cinema chose VIVOTEK and a total of four of its IP surveillance camera solutions to monitor numerous breeding pairs of American Kestrel Falcons. According to Nu-Sun Cinema, cameras installed inside the nest box on the top provide the best viewing of the eggs. Typically one egg is laid every second day with an average of 5-7 eggs in a clutch. Knowing the exact number of eggs laid is an important element of study because it provides Nu-Sun Cinema with insight about egg viability after hatching has completed. The top-down view also provides an interesting perspective during incubation since eggs are rolled and placed in various formations by the adults.



Conversely, a camera installed inside the nest box on the side provides an up-close view of the adults as they incubate the eggs for approximately 26-32 days. Nu-Sun Cinema installed two VIVOTEK FD8151V compact 1.3-megapixel fixed dome cameras on the inside and side wall of the nests. Throughout this period the temperature inside the nest box can fluctuate several degrees and this viewing advantage provides insight into how the adults control egg temperatures with the position of their body.

For a general top down-angle view, Nu-Sun Cinema installed two VIVOTEK FD8366-V compact 2-megapixel IR dome network cameras. With IP66, IK10 and NEMA 4X-rated rugged design, the camera will withstand shocks, vibration, humidity, dust, and even extreme temperature fluctuations to maintain stable and reliable video no matter how harsh the environment. Armed with built-in IR illumination, the FD8366-V delivers superior image quality for up to 15 meters in total darkness. This all-in-one camera meets a diverse array of needs for a multitude of outdoor surveillance applications.

“Using the cameras, we monitor when incubation of the eggs start and this enables us to determine an approximate date for hatching,” explained Rick Onskie, owner of Nu-Sun Cinema. “During this period our observations provide data about how the adults share in the incubation. And through the camera’s audio we’re able to hear

when the male calls the female from the nest to feed. Once the eggs have hatched, data for our study is collected about the nestlings. In the first week or so the nestlings are very small and the camera on the side of the nest box is invaluable for observing the care they receive from the parent.”

Onskie added that with the help of the cameras, throughout the nestling period of approximately 28-31 days they are able to identify the frequency and type of food being fed to the nestlings. As the nestlings develop over the weeks they begin to identify characteristics of the nestlings’ growth. The combination of both cameras provides clear images of their feather development as well as gender markings and coloration.

“Having cameras installed in nest boxes over the past seven years has allowed Nu-Sun Cinema to contribute important statistics towards conservation research about the successful fledging of 25 American Kestrel Falcons,” Onskie concluded. “We found installing the cameras to be very easy, and the hardest part was to determine the size of the nest boxes for optimum viewing. As a professional wildlife videographer, the quality of the video, photo captures, and sound are all very good for the price of the cameras. The cameras function well, even in extremely hot temperatures. We have not had any issues with the cameras and have found that VIVOTEK has been very helpful with any questions we’ve had. We would definitely recommend VIVOTEK.”

Preventing fires in the recycling industry



While the benefits of recycling have been known for years, what people often don't realise are the risks attached. The waste industry deals with a number of potentially combustible materials, from aerosols to lithium-ion batteries. And when these are all put together and processed, the chances of a fire are high. In fact, the recycling industry in France reportedly has the highest level of reported fires of all industries. That's why one of the leading French recyclers turned to technology to help them. The solution was made up of Hikvision technologies by Mylinks, a specialised fire detection solutions integrator.

On top of the obvious safety risks caused by fires, there's also environmental and cost implications, with damage to machinery that can cost millions. The industry is also regulated by an environmental organization called Dreal and recyclers are required to equip their sites with fire prevention equipment.

It's important for any system to detect a fire as early as possible and alert relevant authorities quickly. The system also needed to account for the site's existing operational constraints (like working time, and heat generated by end-user's equipment (forklift, crane, truck, etc...)).

In order to successfully counter the risk of fires, the system needed to integrate with the fire prevention infrastructure installed in the premises. These ranged from compartmentalisation methods, like fire door management and water curtain command, to fire 'extinction' devices, like water cannons and solenoid valves. Mylinks supports the end-user with all these. One chal-

lenge was to design the system precisely so that the camera could work seamlessly with the water cannons. In particular the system needed to be designed in such a way so that the recycling site could cancel the water spray in a false alarm, although these are very seldom.

Mylinks installed a variety of Hikvision cameras: including bi-spectrum dome cameras (DS-2TD4136T), thermography turret cameras (DS-2TD1217-2) and thermography cube cameras (DS-2TA21-2AVF (or DS-2TD3017)). A thermography dome camera is installed at the centre of a large building on site. Any object with a temperature above absolute zero emits a detectable amount of radiation, called 'emissivity'. The camera can detect a change in the emissivity of an object or surface when temperature rises, for example, so it can prompt an alert.

In this recycling solution, water cannons are configured to respond to these changes. Water cannons are placed on the right and left of the dome camera, part of the 'extinguishing' process. Mylinks calibrated the devices so that when an elevated temperature is detected, the relevant cannon responds immediately by spraying water in that specific area. The enhancement of a thermal camera makes it possible to detect and extinguish very quickly when a fire does start.

However, the focus, of course, is on prevention, so the system performs regular tests. A daily motion test and an electrical signal checks the integrity of the lines controlling the fire valves. Any anomaly detected during these operations sends an error message to the fire panel where the operator can take the necessary

measures without delay.

On top of this, thermography bullet cameras (DS-2TD2136T-10) and bi-spectrum bullet cameras (DS-2TD2636T-10) are installed on indoor and outdoor locations on the site in order to monitor paper, plastic, wood, metal and Waste, Electrical and Electronic Equipment (WEEE) storage. Even the conveyor belt of the sorting machine is covered - by a Thermography Cube camera (DS-2TA21-2AVF). This prevents burning waste from entering the machine.

Finally the site guardian uses a handheld thermography camera (DS-2TP31-3AUF) to manually check alerts or sensitive points on monitoring 'rounds'. The system is set up to send alerts when a hot spot is detected. In the day this takes the form of an 'alarm' in the site monitoring centre, a call to the site manager, and/or an audible message via speaker on the site itself. At night, the alert is sent to a remote monitoring centre, where an operator can then check if there is a real fire and call the fire services. The site manager is also informed by the remote monitoring centre.

According to Hikvision, since the cameras were installed, multiple fires were detected immediately on the recycling site over summer, and they were able to understand more about what happened, whereas with traditional fire detectors, they would just have had a signal without any information on how the fire started.

Albert Sintes, Chief Technical Officer and Associate of Mylinks, says: "These cameras were chosen because of their superior range/accuracy ratio and extended temperature range.

We found Hikvision technical support reactive and of a high quality. We also were able to easily integrate the cameras with other brand solutions such as Hydrotop, Milestone and

Vanderbilt and configure them to the specific customer needs." Using a variety of different thermal cameras, the amount of fires in this high 'fire-risk' industry are reduced. This has

a positive effect on the recycling company's costs, but also, more importantly, reduces the risk to the people and the environment around the site.

Using VR for productive fire safety training



As traditional methods of training continue to evolve, could VR be the next step in providing the most realistic and effective experience yet. Luke Robinson, H&S Programme, Strategy and Innovation Manager at Wincanton PLC, explained how using immersive training technology has improved the company's fire safety training.

As a British-based transport and logistics services provider, health and safety is a top priority for Luke and the team. His enthusiasm for making training practices more immersive and engaging led him to the development of a RoSPA approved fire safety training course using virtual reality (VR) and a further approved course for accident investigation. Both have achieved a 100% success rate and an A rating for delivery.

A finalist in SHP's Trailblazer in Technol-

ogy Award for 2020, Luke said that the sessions have improved attendance rates compared to previous courses, and increased engagement from trainees while in the classroom. He noted it's been particularly well-received by colleagues who are more 'hands-on' and have a kinaesthetic learning preference.

One trainee commented: "I have learnt how to inspect and correct any failings with fire safety in my place of work and home."

Feedback from other attendees highlights how virtual reality provides a more immersive experience for colleagues, culminating in genuine behaviour changes in the trainees after the course with safer and faster decision making.

A 360° camera captures imagery all around the participant to develop a risk assessment and accident investigation package that provides re-

alistic depth perception. While not every site has the Wi-Fi capabilities to handle the signal, Wincanton's training team has invested in a mobile router solution for more remote sites. Class sizes vary between 12 and 16 people with one or two headsets split between the group.

Responding to whether any notable changes had been seen in fire risk management from the VR training, Luke commented: "Colleagues are even more proactive and proud to let the training team know how they are applying the training. We estimate 75% will positively change their behaviours post course. Perception of fire risk is the biggest problem in fire training, and it is a real game changer if people see that as a real risk. We are noticing people checking fire doors, checking fire extinguishers and running fire drills."

Panasonic launches new fire system in to the UAE

Panasonic Life Solutions Middle East & Africa, a subsidiary of Panasonic Marketing Middle East & Africa FZE is launching its user-oriented fire alarm system (FAS), in the UAE.

With facilities increas-

ingly focused on improving safety standards, the fire alarm systems offer a smart and scalable solution for a wide range of industries and facility sizes. The fire alarm system is made available to customers by Al-Futtaim Engineering and technol-

ogies (AFE), the leading multi-disciplinary engineering provider operating across the UAE.

Panasonic's fire alarm systems, EBL512 G3 and EBL128 are embedded with smart flexible detector algorithms that auto-



evaluate surroundings and select alarm operation modes appropriately. They are capable of sensing unwanted alarm-triggers like dust and insects, using an improved detector chamber with an extremely fine mesh net, and reduce cases of false alerts. Designed under European standards, it is ideal for buildings of any size such as airports, hotels, universities and theatres with artificial smoke generators or factory settings where oil mist could be present.

The detectors are of 'made-in-Japan' quality and come with control panels manufactured in Sweden for optimum system quality. The FAS facilitates effortless surveillance, operation and maintenance, apart from auto addressing the threats and function-

alised detectors. Panasonic delivers greater flexibility and convenience to customers in key sectors including healthcare, old age homes, education, retail and hospitality, government and public safety and transport and logistics.

The system offers great convenience, the FAS control panel is accessible from anywhere over the web as it supports TCP/IP worldwide connectivity. It also supports map image handling, enabling the user to position the fire alarm system on a user-specified map.

"Our products have been tested successfully to the highest standards ensuring reliable operation to make facilities safer for occupants as well as the installation process easy

for integrators. The system is going to be helpful for facilities in the region, especially the ones prone to receiving false alarms triggered by unwanted elements. The launch of FAS further expands our solutions portfolio, and we are pleased to have partnered with AFE to bring it to customers in the region," said Mr Eiji Ito – Deputy Managing Director, PLSMEA

"Panasonic is among the most reliable and resilient brands in the industry. Their fire alarm system solutions are an important addition to our growing safety solutions portfolio and we are sure it will improve our on-site installations, increase business efficiency, and further foster customer trust in us," said Mr Murali Serpakkam, Managing Director, AFE.

in seconds. The proprietary spectroscopy-based technology (which has 39 different patents) provides near-instant detection of smoldering fires and toxic gases, giving users critical life-saving time to evacuate. They leverage advanced technology using Artificial Intelligence (AI) to increase detection time and improve accuracy, while minimizing nuisance alarms, and the Internet of Things (IoT) for monitoring and maintaining historical data.

Stewart says the prod-

uct is in the process of certifying to the new UL217 standard, 8th edition. When connected with compatible alarm systems, it dispatches first responders within seconds. Stewart adds: "Our device will communicate with most of the major alarm systems, such as ADT, etc. The current plan is to use WiFi, but we are also looking at both Zwave and Zigbee, as we have the ability to utilize both."

It is also cloud-connected, so it is capable of alerting users via text, in-

app messages, or home alarm systems with recommended actions to improve air quality or safely evacuate during a fire or gas leak. The smartphone app also details real-time indoor air quality information.

It can detect gases including: CO, CO2 and hydrocarbons; as well as Volatile Organic Compounds (VOCs) including hydrogen cyanide, formaldehyde and more. The company has received the 2021 CES Innovations Honoree Award for the products.

DITEK DTK-120X12 Surge Protection Solution for Fire Alarm Systems



DITEK, the leading provider of surge protection solutions, announces the launch of a new complete electrical surge protection solution for fire alarm systems. The DTK-120X12 combines protection for 120V system power with protection for up to 12 low voltage circuits to eliminate unnecessary damage caused by electrical surge events. This unique and compact new combination simplifies implementation of comprehensive surge protection for critically important fire alarm systems while providing for remote monitoring of surge protection status using dry contacts.

The convenient, modular plug-in design simplifies installation of surge protection modules and allows for easy replacement when needed. The combination of complete system protection along with high quality construction and field-replaceable modules makes this new offering a

perfect fit for protecting alarm systems and control panels.

"The new DTK-120X12 brings together a simple and complete solution for fire alarm systems," said Michael Molinari, Director of Marketing, DITEK. "By expanding protection beyond the primary power supply to the low voltage signaling and control circuits, this new protection solution drastically reduces the chances that these wires can carry destructive surges back into the Fire Control Panel. There is no better way to quickly protect a fire alarm system."

The DTK-120X12 base is designed to be wall mounted and hardwired, and includes the 120VAC power surge protection unit with dry contacts for remote monitoring of surge protection status. The 120VAC module also has LEDs for visual confirmation of status, as well as a loud audible alarm that sounds

if protection has been compromised.

This three-way notification is designed to ensure that the system will not remain unprotected. The base also has space for mounting up to 6 compatible low voltage protection modules (DTK-2MHL and/or DTK-2MHT) that can be used to protect up to 12 SLC, NAC, IDC, PIV, and dialer circuit pairs (these modules must be ordered separately to match the needs of the installation). All the protection modules are field-replaceable, allowing for quick restoration of protection when needed. A sliding cover is provided to prevent accidental contact.

The DTK-120X12 is UL1449 listed as a Type 2 SPD and UL497B for surge protection, UL1283 listed for EMI/RFI noise filtering, and complies with applicable IEEE standards.

A new method of smoke detection



After successful testing that concluded in mid-2020, SAAM Inc., has introduced to the world a new way to detect smoke and toxic gases at CES 2021. "We have developed the next generation of home smoke alarms – taking what was once a passive device and turning that into a smart,

interactive device, giving you real time information," says Greg Stewart, President and co-founder. "We do this by using a technology based on a spectral optical chain to literally sense for the gases emitted prior to smoke and fire being generated."

"When there is smoke and when a fire starts,

there are chemical changes that occur in the air, and we can detect those chemical changes," adds Rob Qualls, CEO and co-founder. "As a result, we can warn you."

The company's S-Series of devices – which include tabletop and ceiling/wall-mount options – are preemptive and alert

Decoding 5G's impact on video surveillance and security industry



It's been talked about (and hyped) for several years now, but 5G mobile communications is now being rolled out. It's been a few years coming, but 5G (5th Generation) mobile telecommunications is becoming a reality in more towns and cities around the UK and in many other countries. Its exponents say it is set to revolutionise what we can do wirelessly in terms of higher speeds, considerably reduced latency, and the networking together of potentially billions of IoT devices.

Without doubt, this revolution will affect the physical security industry, not least in the video surveillance arena. According to research from Gartner, outdoor surveillance cameras will be the biggest market for 5G IoT solutions until 2022, when they will be surpassed by connected vehicles. The reasons cameras are playing such a big role is that video surveillance systems often span large sites or city locations and being located outdoors, require cellular connectivity.

Before examining 5G's potential impact on the security industry, let's look at some of the expected performance figures. 5G download speeds range from around 50 Mbps to 1.8 Gbps or more, though these will vary depending on network conditions. The speed of 5G networks means that a 3GB movie that took almost half an hour to download via 4G would only take around 30 seconds on 5G networks, according to Xchange.

In terms of capacity, while 4G networks can accommodate a few thousand IoT devices per square mile, 5G will provide fast network connectivity for millions of devices per square mile. Latency will become almost a thing of the past: while current 4G networks have latency rates between 50-100 milliseconds, 5G would reduce that to just 1-4 milliseconds (though real-world rates will vary), effectively unnoticeable to human senses and a crucial dif-



ference when it comes to systems that need instantaneous reaction, such as autonomous vehicles and remote surgery.

For video surveillance applications, the near-elimination of latency will provide a welcome boost to camera responsiveness and real-time monitoring, not to mention a quantum leap in image quality, as it is set to support 4K and even 8K video. In addition, subject to network conditions, users will be able to upload or download video to/from the cloud in a matter of seconds. Viewing live video on mobile devices is also set to be transformed with the performance boost that 5G offers. And the role of video analytics and AI will be greatly enhanced with the faster speeds and greater capacity of 5G networks.

It's not only surveillance systems that will be augmented with the performance potential of 5G. Safe city schemes will be further enhanced so that video can be used for a range of applications, such as public safety, traffic management, fire detection, crowd management, access control and intruder detection. This will be the case whether those video feeds originate from conventional outdoor cameras or from wireless-only devices such as body-worn cameras and vehicle or drone mounted cameras. And the ability to define network 'slices' means that 5G can offer dedicated portions of network capacity for specific applications, doing away with the need to share capacity with multiple users.

5G will come into its own by leveraging AI-based solutions such as remote asset management, face recognition, object and event recognition, intelligent image processing and even behaviour detection, according to telecommunications international.

It is also set to enable machine learning and deep learning algorithms to develop advanced video analytics solutions. In addition, it has the potential to increase the intelligence of surveillance systems, as well as expand video surveillance as a service (VSaaS), where video is uploaded to a centralised cloud platform rather than being stored in local systems for live viewing and video analysis, as well as analysing recorded footage.

This leap in performance and new applications is all very well, but what about privacy concerns in an ever-more connected internet environment? While on the face of it this may trigger privacy worries, especially with the proliferation of networked IoT devices, the ability to increase the use of video analytics at the edge may act to dispel some of these issues. According to a Nokia blog, the ability of video analytics to anonymise images by dynamically masking people in real time – allowing users to track movement and activity without identifying individuals – will go some way to protecting privacy. Video analytics are also able to detect anomalies in behaviour, movement and environment, so that only these events are captured and stored, helping to allay legitimate privacy concerns and reducing the need to transmit and store bandwidth-hungry footage.

Aside from the debate surrounding Huawei and the security of the national 5G infrastructure, there have been some concerns voiced about the inherent security of 5G networks. 5G networks may not be insecure in themselves, but according to Raconteur the critical applications on which they will increasingly be used make them potential targets.

In theory, 5G is more

secure than its predecessors, due to better encryption and the ability for network slicing. But ultimately, security is down to the shared responsibility between network operators and users, with operators needing to implement a continuously

evolving risk-based approach to security.

The rollout of 5G still has some way to go before users can widely experience some of the claimed performance benefits of the technology. But there can be little doubt that it

is set to transform some aspects of the security industry and at last make mobile cellular transmission a high-performance alternative to hard wired and wireless networked systems.

The crucial role of lighting in video surveillance clarity and performance



The sound of sirens in the distance is commonplace, nowadays. Whether related to a medical emergency or everyday crimes, we're all accustomed to hearing these sirens by now. It is worth noting that many incidents that police respond to take place at night.

According to a recent report by the Sleep Judge, more than half of murders, manslaughter, sexual assaults, robberies, aggravated assaults and motor vehicle thefts happen long after the sun has set.

To anyone looking to address the round-the-clock security challenge, deploying the most comprehensive surveillance solution is a must, and this means, looking at the instrumental role illumination plays in video capture.

For surveillance cameras relying on video analytics and artificial intelligence (AI) to deliver functionalities such as facial recognition, license plate reading and motion detection, nighttime crimes can pose something of a problem. Without adequate illumination, images from video cameras are grainy and unusable.

Without proper lighting, potential criminals and moving objects essentially become indistinguishable, at night, thereby inhibiting even the most advanced security technologies. This limitation of traditional surveil-

lance technology not only hinders immediate police response, but it also stops crime investigations dead in their tracks. Often, without video evidence that is clear and discernible, conviction in a court of law is next to impossible.

A common response to this issue is to place security cameras near streetlights or well-lit areas. After all, according to NPR, street lights are effective in deterring crime, as "there are people such as neighbors, pedestrians, or police, to actually see suspicious activity." However, even if streetside and primary entrances are well lit, the areas that still need most to be surveilled are rear or side doorways shrouded by darkness, unlit back alleys, and so on. If surveillance cameras can't be used to prevent, detect and resolve crimes that occur in these areas, the entire security operation is obsolete. Best-in-class security solutions must be able to see everything, day and night.

Addressing this issue is easier than you might think. Much like a human eye needs some sort of light to "see," so does video surveillance technology. Integrating external illuminators into a security solution can optimise camera performance exponentially, expanding a camera's video capture and coverage abilities and ensuring the operation of video analytics, day and night. Opting for an ex-

ternal illuminator allows system integrators to select a device that matches the exact emission range of a camera's field of view (FOV).

The result is an evenly lit visual field, where captured images are clear and effective for security purposes. The two most common options available to integrators include infrared (IR) and white light illuminators. Each technology is built to optimise particular deployments, depending on their needs.

IR illuminators emit IR light, which is invisible to the human eye and perfect for covert surveillance operations. When cameras need to be able to detect potential threats over long distances, IR illuminators are perfect for the job as they typically have longer emission ranges. IR illuminators are optimal for surveillance operations in license plate recognition, border patrol, safe cities, theme park, and medical sleep lab applications.

If an end user needs to implement full-color video analytics for identification purposes, such as facial, object and license plate recognition, white light illuminators are undoubtedly an integrator's best bet. IR illumination and traditional thermal security cameras, after all, are only able to provide black-and-white images, whereas object recognition software often identifies objects based on their color. White light illuminators installed alongside AI-powered surveillance cameras enable enhanced video image clarity, which optimises video analytics performance.

When customers want to physically deter suspicious activity, deploying white light illuminators is effective. A recent study out of Crime Labs New York found that businesses that deployed visible lights to deter crime "experienced crime rates

that were significantly lower,” which “led to a 36 percent reduction in ‘index crimes’”. On top of all this, LED based white lights operate at low running costs and typically have long lifespans, saving end users thousands of dollars a year in energy costs without having to sacrifice surveillance optimisation.

Security customers looking to use lighting to deter crime and improve the performance of video surveillance may consider “all-in-one” solutions, as some cameras have LEDs (light emitting diodes) built into them. These LEDs typically encircle the lens and therefore shed light in whatever direction the camera is pointed. However convenient these may seem,

built-in illumination can cause problems.

First, LEDs built into cameras and next to other electronic components often cause heat to build up, which attracts insects that can trigger motion detection and obstruct a camera’s view. This heat buildup also shortens the LED lights lifespan. Built-in LEDs also tend to create “hot spots” with glare and reflection back into the camera, often because these lights only cover a 30-degree field of view (FOV), even though the average camera’s FOV is 90 degrees. This issue can severely limit a camera’s visibility, essentially rendering those remaining 60 degrees dark and unusable.

All in all, when inte-

grating lighting solutions into your security deployment, a cost-effective solution that enhances a camera’s video capture and coverage abilities, are external illuminators because they offer flexible choices of field of view and distances.

When it comes to criminal conviction in a court of law, “seeing reality is believing.” Cameras deployed without proper illumination are rendered blind, especially at night, just as any security officer would be when patrolling the same unlit area. To guarantee end users the most reliable and highest performing security solution, consider integrating best-in-class illumination into your offerings.

Credits: Illuminar

Integrating Threat Intelligence into Your Security Operations



Managing threat intelligence is like walking on a tightrope. To stay steady, you have to maintain balance between too little intelligence and too much; you run the risk of toppling off that tightrope and injuring the business, metaphorically speaking. If you swing too far towards gathering too little threat intelligence, you might not spot attacks until it’s too late. If you veer towards over-collecting threat intel, you’ll overwhelm teams and technology with too much data.

Either way, your balance will suffer, especially if your security team is erring on the “too much” data side. Analyst group 451 Research, surveying security leaders for its report Tackling the Visibility Gap in Information Security, found that 49% of enterprises using SIEM, EDR, and other security tools were overwhelmed by the day-to-day operation of managing and ingesting threat feeds into their growing technology stack.

But there are ways to successfully stand straight and tall on that security tightrope. The four steps below can keep your security team focused on the intelligence that tells them where attackers are and how they’re attempting to break in. When security teams aren’t buried under the data avalanche, they can better evaluate threat intelligence, improve visibility, and accelerate detection and response by focusing on higher fidelity events in their environment. They can also review threat intelligence solutions regularly to make sure they’re operating as expected.

Data collection

In this step, your security teams need to collect intelligence that’s most meaningful for your industry and align it with similarly relevant frameworks and issues. For example, you can do research on feeds with the highest fidelity, accuracy, and timeliness in your field. If you need help, look to sources such as

SANS and DHS and Information Sharing and Analysis Center (ISAC) feeds. In addition, you should look for security frameworks that align with the tactics of your industry’s common attackers. Start with MITRE ATT&CK® since it offers a detailed framework.

When possible, enable alert-level automation at this stage by filtering threat intelligence into investigations and automatically pull relevant artifacts from multiple technologies so your security team can prioritize and complete investigations faster, in one central place.

Prevention

If your threat intelligence helps you figure out how to thwart attackers before they do damage, you’re ahead of the game. You can benefit from the knowledge that similar organizations have amassed (that is, the data feeds discussed above) to get proactive. For example, you can add controls to prevent threats from executing, or add block lists to firewalls and proxies that are dynamically updated with the collected threat intelligence. In addition, your team can leverage the threat intelligence in threat hunts to identify the “low hanging fruit” pathways that attackers take, then block them: If intelligence tells you that attackers try to obtain administrative privileges,

limit which users have these permissions.

Detection

Your security team’s goal should be to gather threat intelligence with only the cream-of-the-crop information. Automation is an important part of this process: It can aggregate, de-dupe, and rank threat intel much faster than your team members can do manually. The resulting high-fidelity intel feed will help improve detection and minimize false positives. You’ll also get a better handle on the behavioral patterns of potential attackers – and when attackers refine or pivot their

techniques, you’ll know right away.

Then, it’s important to test that your detection controls are working properly with automated, continuous attack simulations. If the control isn’t working, attack simulations allow you to identify why and course correct to avoid misconfigurations or improper tuning in the environment.

Response

When attacks happen, you’ll want the security team to create a plan of action that’s backed by confidence. Automation helps you build this assurance by enriching the analysis process and quickly

gathering information. With enriched analysis, your team gains context around threat data. By building knowledge of an entire attack chain, for example, you gain a view into known behaviors to search for before and after detection.

These steps represent a critical phase in your journey towards reducing security complexity, improving detection and response, and increasing your team’s efficiency. Once you put these steps into practice and regularly reevaluate your processes, you can minimize risk and reduce the possible financial and operational impacts of attacks.

Monitoreal provides an AI-smart object detection appliance to deliver advanced analytics and real time alerts

The use of AI-computer vision technology to improve situational awareness and provide highly accurate advanced object detection analytics, reducing false alerts and delivering real time notifications, has been one of the biggest advancements in video analytics.

The implementation of this technology has grown increasingly over the past few years in verticals such as city surveillance, critical infrastructure, manufacturing, and healthcare, where it is used to analyse unstructured video surveillance data in real time and also to leverage actionable insights for improved operational efficiencies.

Because of that, it’s not surprising to see that the global video analytics market is expected to grow from USD 4.9 billion in 2020 to USD 11.7 billion by 2025, according to MarketsandMarkets. Consequently, many companies are reportedly expanding their R&D and investment in enhanced AI video analytics capabilities to help improve the enterprise level real-time event detection.

Despite an increased adoption in the enterprise space, IFSEC Global found in a recent survey that cost and data concerns are amongst the top reasons for companies delaying these types of implementations which is supported by annual licence fees that range from more than one hundred to several hundred dollars per camera per year. Additionally, the GPU accelerated

hardware needed to run these applications significantly drives up the costs and if customers choose to select a cloud based platform, the recurring cloud fees also add up over time.

This begs the question: if AI-based analytics are a cost concern for the Enterprise customer, what options do the commercial SMB and ‘Smart Home’ segments have? Most often, they are forced to accept less effective analytics that are included ‘for free’ - natively with their AI embedded NVRs and cameras - or try to utilise cloud-based consumer electronics options.

The consumer products have limited choices for object detection, camera resolutions and lenses, and again have recurring fees that make the TCO over three years expensive. Despite these selection challenges, the appetite is certainly there; according to Venturebeat the demand from both small and medium-size businesses and consumers for more sophisticated AI video analytics is increasing. Yet, this market has remained underserved. Recognising the gap in the market, Monitoreal has introduced an affordable AI-smart object detection appliance which uses AI-computer vision technology to deliver advanced analytics and real time alerts.

Designed with the need of the SMB commercial and ‘smart home’ segments in mind, this appliance resides securely behind the firewall, maintains the user’s privacy,

and autonomously performs highly accurate object detection at the edge. Its flexibility allows for the device to be designed into new installs or added to millions of existing IP-based surveillance systems already deployed.

It also works with a wide array of camera models currently in place, to provide real time detection and alerts for up to 8 cameras. With a powerful yet simple web user interface (WUI), the user can set up the device to automatically discover almost any IP camera in a matter of minutes and is also able to set up multiple rules and zones of interest for each camera, with a drag and click of a mouse.

And perhaps most importantly, the products are comparatively affordable, with no recurring fees or additional fees for new features. Monitoreal’s company philosophy is based on the idea that the customer should have full control over their data, their privacy and their security. They believe that products should be priced simply, with no hidden fees or agenda and they allow integrator partners to have the flexibility to bundle the products with their recurring services contracts, if they choose to do so.

Furthermore, they have seen many of their partners find success in offering this solution to past customers by proposing the AI-smart object detection appliance as a way to maintain the relationship, add value and continue to monetise that customer.

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