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SECURITY Update

THE SECURITY & FIRE SAFETY TECHNOLOGY MAGAZINE

For Security & Fire System Manufacturers, Distributors, Dealers, Integrators, Installers, IT Systems Integrators & VARs, Consultants & Enthusiasts.

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Intelligent Video Surveillance In Retail

OSDP vs. Wiegand: Which Access Control Protocol is Right for You?

AI-Powered Video Security Cameras Offer Smart Technology Solutions By Adding Value

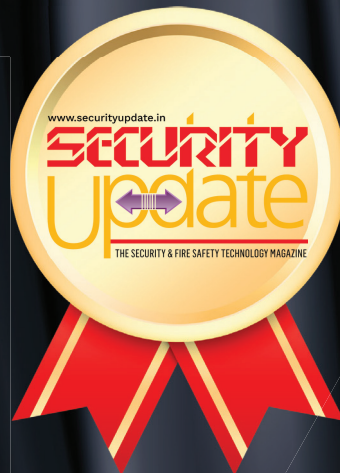
Cloud-Based Visitor Management SaaS Solutions Deliver Valuable Benefits Faster

9 Tips For Selecting The Best VMS For The Job

Digital Locking Helps Airport Improve Regulatory Compliance



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CONTENTS



**COVER
STORY**

16

INTELLIGENT VIDEO SURVEILLANCE IN RETAIL ENVIRONMENTS

Explore the transformative role of intelligent video surveillance in retail, projected to reach a \$82 billion industry by 2025. Discover how video analytics software enhances loss prevention, business performance measurement, and customer service, aiding real-time alerts, performance evaluation, and operational compliance.

General Information

SECURITY UPDATE welcomes manuscripts, news items and photographs, however SECURITY UPDATE is not responsible for loss or damage incurred while in transit or in our possession. SECURITY UPDATE is published monthly on the 28th day of every month. Editorial deadlines are three weeks before this date.

8 WISE THOUGHTS

E-Waste Could Mean More Wins for Integrators

- Explore e-waste management's impact on security system deployments. Learn how cable reuse strategies can cut costs and enhance customer value for integrators.

10 INDUSTRY UPDATE

- Identiv sells security business to Vitaprotech Group for \$145M
- Invixium welcomes Akhil Gupta as National Sales Manager for India
- Milestone Systems delivers four years of record-high net revenue
- Strong Robotix financials and strategy to strengthen US partnerships
- Johnson Controls named overall pioneer for its smart building management platform
- HID and Assa Abloy take airport security to new heights
- Qognify rebrands under Hexagon banner

22 CASE STUDIES

- Fingerprints taps Freevolt S-Key to bolster the security of its Gothenburg HQ
- Digital locking helps airport improve regulatory compliance
- 5-Star GoldenEye Hotel & Resort boosts profitability with IDIS
- Surveillance Cameras provide peace of mind for New Florida homeowners

26 SU GYAN

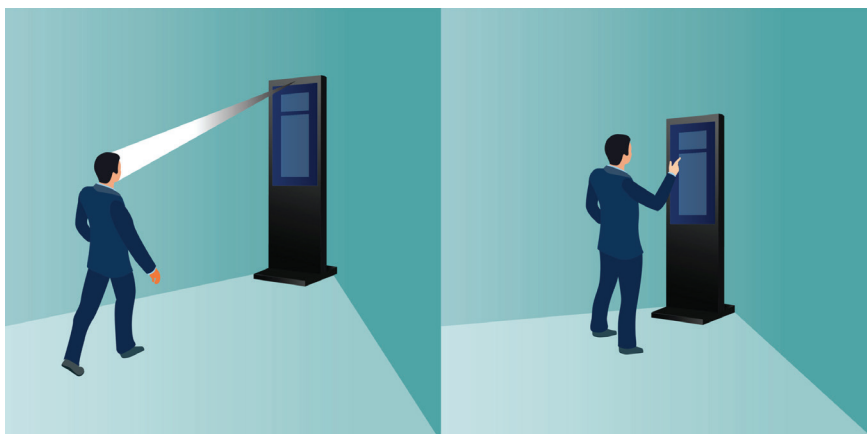
OSDP vs. Wiegand: Which Access Control Protocol is Right for You?

- This article explores the differences between OSDP and Wiegand, two prominent access control protocols. It delves into their origins, security features, functionality, interoperability, and adoption trends, aiding readers in making informed decisions for their access management systems.

28 BIZ BUZZ

9 Tips for Selecting the Best VMS for the Job

- "VMS choice influences hardware, software, and maintenance costs. Milestone Systems recommends nine factors for selecting the right VMS.



44 INDUSTRY SPOTLIGHT

Cloud-Based Visitor Management SaaS Solutions Deliver Valuable Benefits Faster

- Cloud-based visitor management SaaS solutions streamline operations, enhance security, and support workplace safety initiatives. Integrating with existing systems, they offer duress-alerting capabilities and Real Time Location Services. These solutions address compliance needs, minimize costs, and provide scalability for future requirements, ensuring efficient management of visitor traffic.

30 TECH TALK

AI-Powered Video Security Cameras Offer Smart Technology Solutions By Adding Value

By HIKVISION, India

AI-powered video security cameras revolutionize physical security, offering smart solutions and business intelligence through advanced analytics. Various applications explored.



32 FIRE CHAT

- How simulation and modelling is improving fire safety
- Five Cutting-Edge Technology to Fireproof Your Building



36 PRODUCTS UPDATE

- Hikvision India Introduces the next generation Turbo HD 8.0, opening a new chapter in audio-visual fusion
- Low-light All Color Series cameras released
- New Axis dome cameras with mic enabling audio analytics
- Dallmeier releases new PTZ camera series
- Morse Watchmans launches new EKG kit
- VIVOTEK Launches New AI powered Network Camera
- 3DX-Ray launches the first cabinet-style mail screening X-ray system with integrated AI software
- ClareVision Smart Video Doorbell from Snap One
- First Alert VX Series from Reside
- Janam unveils breakthrough all-in-one UHF RFID reader for supply chain operations
- Amazon Blink Mini 2 Camera
- The upgraded Regula 4205D: Forensic-level document verification for border security



50 EVENTS CALENDAR

Industry events around the world



Dear Reader,

In last month's March 2024 issue of SECURITY TODAY, I praised the crucial role of first responders in mass shootings. Amid chaos, they must stay composed, prioritising the safety and well-being of those affected.

Through rigorous training and preparation, these individuals are equipped to spring into action at a moment's notice, swiftly assessing the situation and deploying resources accordingly. In fact, this is true not only for mass shootings, but for first responders at almost all critical loss incidents, such as earthquakes, floods and storms, like the one that struck the Middle East recently. The role of the first responders remains significant.

First responders, including firefighters, police officers, emergency medical personnel, and private security personnel, play a critical role during rainstorms and flooding incidents. They swiftly respond to emergencies, conduct rescue operations, and provide essential services to affected communities, prioritizing the preservation of life and preventing further harm. Utilizing specialized equipment and expertise, they navigate hazardous conditions, offering medical aid and facilitating safe evacuations.

During widespread flooding, first responders oversee evacuation procedures, guiding residents to designated shelters or safe assembly points. They assess flood risk levels, issue evacuation orders, and provide assistance to vulnerable populations, ensuring temporary shelters are equipped with necessary provisions until it's safe to return home. Additionally, they enforce safety measures, patrol affected areas, and maintain order to protect both the public and themselves during flood response operations.

Beyond the initial response phase, first responders continue to play a pivotal role in long-term recovery efforts. They assist with damage assessment, debris removal, and provide support services such as counseling, financial assistance, and community outreach. Through rigorous training and a commitment to community service, first responders demonstrate courage, compassion, and resilience as frontline heroes in the face of adversity. A big salute to them!

Till we meet next, Stay Safe, Stay Vigilant, and Keep Others Safe!

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E-Waste Could Mean More Wins for Integrators



Ray Bernard

The author Ray Bernard, PSP CHS-III, is the principal consultant for Ray Bernard Consulting Services. In 2018 IFSEC Global listed Ray as #12 in the world's Top 30 Security Thought Leaders. He is also a member of SECURITY TODAY's Editorial Board.



Recognizing electronic waste (e-waste) as hazardous, California led the way in 2003 with the comprehensive Electronic Waste Recycling Act to regulate e-waste management. In the U.S., more than two dozen states have enacted similar e-waste laws, varying based on electronic consumption patterns, environmental priorities, and circular economy considerations.

This is an important development for security integrators and other system designers. Much like the sustainability trend, e-waste considerations for security system deployments can be an important factor in network design with two benefits: networking cost savings and value to the customer.

Integrators who can work a solid strategy to address the e-waste issue into their proposals may find themselves on the inside track to winning bids in a variety of industries.

What is E-waste?

E-waste regulations aim to protect the health of people and the environment against potential risks associated with chemicals. Not only is copper wire itself hazardous waste that does not belong in landfills, the insulation that protects it often also contains toxic materials. Although many buildings have recycled their outdated cabling infrastructure (there are companies dedicated just to that), there are still many buildings that have simply left

it in place due to the cost and disruption involved in removing the installed cable. Telephone system upgrades to Voice Over IP systems (VoIP), have left behind extensive long cable runs in many large buildings.

John R. Abrahams and Mauro Lollo, in their eBook *Centrex or PBX: The Impact of IP*, estimate that as of 2003, there were 20 million Centrex lines installed worldwide by 20 telephone companies, with the most installations in the United States (15 million), Canada (2 million), and the United Kingdom (1 million). Many buildings still have coax cable in place from analog camera deployments that were replaced a decade or more ago.

Reuse of Legacy Cable

Cable reuse is one way to solve e-waste considerations; in fact, cable reuse is a viable design consideration because there are more than 87 currently-in-use IEEE Ethernet LAN standards, including several that were developed specifically for IoT networking:

- **3bp** – providing Gigabit Ethernet (1000BASE-T1) over a single twisted pair
- **3bt** – Third generation Power over Ethernet with up to 100 W using all 4 pairs balanced twisted pair cabling (4PPoE), including 10GBASE-T, lower standby power and specific



enhancements to support IoT applications (e.g. lighting, sensors, building automation)

- **3bw** – 100BASE-T1 – 100 Mbps Ethernet over a single twisted pair
- **3y** – 100BASE-T2 100 Mbps (12.5 MB/s) over voice-grade twisted pair

Ethernet extender products have existed for some time, mostly for point-to-point Ethernet extension. Now, there are enterprise network-class switches that provide Power over Ethernet (PoE) over multiple media types, including both twisted pair and coax cable connections – with terms like Long-Range Ethernet and Long-Reach Ethernet (LRE) both being used to describe the broad range of products available for extending Ethernet connections from between 1,000 ft. and 6,000 ft., depending on the network speed and capacity required.

There are plenty of companies that manufacture such products, including NVT Phybridge, Vigiton, Comnet, Altronix, Planet, Veracity, and more. Before choosing a provider, it is crucial to understand that PoE innovations vary significantly in capabilities and use-cases, so thorough research is essential with a clear picture in mind of exactly what is needed in the field.

For example, does the client need a 24 or 48-port enterprise-grade switch, or are there spare

ports on existing switches that could be used by deploying an adapter at the switch port and at the device end?

From a business perspective, cable reuse matters because it can:

- Positively impact a building’s ratings in sustainability standards programs like LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method).
- Significantly reduce the cost of a networked security system deployment, especially for video surveillance camera installation. The network infrastructure cost reduction for the majority of projects will be 50% to 80%, when you factor in the elimination of IDF cabinets or closets, and the cost of labor. Many case studies exemplify such savings.
- Minimize or eliminate system installation workspace disruption.
- Shorten the time and level of effort required for the deployment project.

This is a novel situation, where making contributions to a building’s environmental profile actually reduces expenditures instead of increasing them. The importance of the environmental profile of a building continues to grow in importance, and positive contributions to it are welcome.

Cable Reuse Myths

There are a variety of incorrect ideas regarding cable reuse, often propagated by entities with a vested interest in new installations. In fact, customers, integrators, network designers, and security system specifiers can benefit from security cable reuse,

while new cable manufacturers, network switch manufacturers (it reduces the number of switches provided), and companies that rely on revenue from pulling cable undoubtedly do not.

A common refrain is that the reused cable will become obsolete in a few years; however, that is unlikely. Consider, for example, that the useful product life of a network camera is much longer than for typically networked devices. Replacing cameras to upgrade their capabilities will not change network requirements – that will remain true for most security system end-devices.

Very few network segments of a security system, such as the buildings where servers are located, may require CAT7 or CAT8 cable for server-to-server traffic. In the coming decade, few or no end-devices will evolve to that level of requirement. In environments where cabling continues to be exposed to rodents in some locations, reuse may not be possible. Those situations can be easily identified but are usually rare and project-specific.

New Deployments and E-waste Avoidance

Regarding new deployments where no cable reuse is involved, there are still environmental impacts to consider for the property owner’s benefit. For example, where there is a significant reduction in the number of IDF rooms through the use of LRE and LRPoE – both a cost comparison and an environmental impact comparison can be performed that contrast the cable requirements and network equipment energy usage (including HVAC for IDF rooms) between the traditional office LAN networking approach, and the IoT networking approach. Credits are available for e-waste avoidance and reduced energy consumption. ■

Identiv sells security business to Vitaprotech Group for \$145M

Identiv has agreed to sell its physical security, access card, and identity reader operations and assets to Vitaprotech Group, the French security solutions company that owns a variety of manufacturers, including fence providers Protech and Sorhea, as well as UK-based access control hardware provider TDSi.

Under the terms of the agreement, Identiv will receive a cash payment of \$145 million upon closing of the transaction, which is expected in Q3 of 2024. According to a press release, longtime Identiv CEO Steven Humphreys will follow the security business to Vitaprotech.

“This is a game-changing transaction for the future of Identiv that we believe is an excellent outcome for our stockholders, employees, customers, and partners,” Humphreys said in the release. “Our security business naturally aligns with Vitaprotech’s strategy and vision for the market, creating a world leader in enterprise security.”

Created in 2012, Vitaprotech Group currently comprises 14 companies covering a variety of enterprise security needs. Those companies design, manufacture and distribute interoperable, customised solutions focused on physical access security.



Identiv’s product line ranges from access control hardware, such as power units, controllers, and communication boards, to entry control solutions such as intercoms. Notably, it also is the provider of the Hirsch Velocity line of access control products and software, which was a key component of the company’s launch in 2013. Identiv also acquired 3VR in 2018.

For its part, Identiv will now focus solely on its specialty IoT business. Kirsten Newquist will assume the role of President of IoT Solutions as of April 15. Newquist has more than 25 years experience in strategy, product management, business development, and global sales and marketing. She will join Identiv after 17 years at Avery Dennison. She will assume the role of CEO of Identiv once the transaction closes.

Invizium welcomes Akhil Gupta as National Sales Manager for India

Invizium, a global leader in biometric access control, workforce & visitor management solutions has announced the appointment of Akhil Gupta as the new National Sales Manager to spearhead sales and growth initiatives in India. In this role, Akhil will be responsible for continuing and growing Invizium’s successful trajectory in the region by strengthening the company’s large customer base, driving sales strategies, nurturing key partnerships, and securing new opportunities. With this appointment, Invizium aims to further penetrate the growing critical infrastructure and industrial sectors like refineries, airports, data centres, construction sites, pharmaceuticals, manufacturing plants, etc. across tier 2 and tier 3 cities in India.

Akhil brings over 20 years of stellar experience in



sales leadership roles and a proven track record of driving key strategies for business development in the security industry. Before joining Invizium,

Akhil held senior sales roles at Auto ID Systems, Force Identification, and Evolis Card Printers where he excelled at strategic planning and sales execution. His extensive background in leading commercial and industrial projects aligns with Invizium’s mission to deliver rugged biometric solutions tailored for the most unclean and harsh working conditions of industrial and critical infrastructure sectors.

“India has always been at the forefront of our global strategy,” said Shiraz Kapadia, CEO & President at Invizium. “With this appointment, we aim to further solidify our position and get aligned with the explosive economic growth in India with a keen focus on its expansive industrial and critical infrastructure sector. We are certain that Akhil’s experience, high energy, and industry knowledge will be a key advantage for us in delivering our modern and state-of-the-art biometric solutions to India’s fast-growing and demanding market.”

“Joining Invizium represents an exciting opportunity to contribute to a company with a global

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standing for addressing real-world security and productivity challenges,” said Akhil Gupta. “Their reputation for integrity and professionalism is a hallmark of their success and a shared belief of mine. I look forward to working more closely with customers, partners, and other key stakeholders to foster stronger collaborations and drive business growth.”

Invizium champions a non-traditional, unique, custom-made approach, understanding that a one-size-fits-all approach does not work when it comes to security solutions. Invizium is renowned for its problem-solving approach and is the only biometric solutions provider that delivers biometric access control, workforce, and visitor management solutions purpose-built for demanding sectors such as oil and gas, airports, manufacturing, and construction.

Milestone Systems delivers four years of record-high net revenue

Milestone Systems, a leading provider of video technology, delivered a record-high net revenue of 1.69 billion DKK (€226 million) in 2023, according to the Danish company’s newly released Annual Report.



The Copenhagen-headquartered company celebrated 25 years in business in February 2023. During the anniversary year, Milestone made significant strides in delivering its growth strategy, particularly in key industries such as healthcare and hospitality.

Thomas Jensen, CEO, Milestone Systems, said: “As we reflect on Milestone’s remarkable journey of 25 years, we not only celebrate our past achievements but also look forward to what lies ahead. The advancement of artificial intelligence and video analytics opens up endless possibilities for data-driven video technology. We already see how our strategic focus on key sectors such as healthcare and hospitality can make meaningful contributions to people, businesses, and societies around the world. We are proud of Milestone’s achievements to-date, but we are even more excited about the future.”

Milestone has long advocated that technology should be developed, sold, and used responsibly. In 2023, the company established a formal program on Responsible Technology. These principles will guide the development of Milestone’s products and services and interactions throughout the value chain.

Reflecting on Milestone’s growth ambitions, Lars Larsen, CFO, Milestone Systems, said: “Looking ahead, we anticipate an eventful and promising 2024. We will continue our growth journey, in terms of revenue, investments, and profitability. We expect the coming financial year will bring many opportunities, particularly within the cloud and video analytics spaces.”

Highlights from the year included the launch of XProtect Hospital Assist, a video solution that allows medical staff to remotely observe multiple patients at once and respond to incidents quickly. The company also introduced an updated approach for the casinos industry, one of the most strictly regulated industries in the world, to ensure gaming compliance and to help businesses deliver exceptional guest experiences.

By year-end, Milestone added Camera to Cloud capabilities to the cloud-based offering Milestone Kite, a simple, secure, and scalable Video Surveillance as a Service (VSaaS). The addition of Camera to Cloud means computing, recording and video storage can take place on cameras.

Strong Mobotix financials and strategy to strengthen US partnerships

The audited results for the Mobotix business year 2022/23 show the company increased sales by 13% compared to the previous business year and closed the year at EUR 63.2 million with an order backlog of EUR 0.5 million, and hence nearly in line with the latest published guidance of EUR 64.0 to 66.0 million in August 2023.

The main growth, according to a statement by the company, derives from both increased sales of video surveillance cameras and increased software sales in video management systems and analytics. Vaxtor Group, acquired in 2022, has contributed with software sales above the expected level. EBIT has improved from EUR -7.5 million to EUR -3.9 million due to an improved material cost ratio as well as staff cost ratio. Additional provisions have been established of EUR 3.3 million due to outstanding payments from some long-term partners.

Due to these provisions, the EBIT is different from the published guidance of EUR -0.8 to 0.2 million from August 2023. Mobotix has also stated that it has agreed to an extension of the existing loan agreement with Konica Minolta Inc. in Japan in February 2024.

The company continues to strengthen the announced strategic focus on quality, cyber security, market certifications and solutions for specific vertical markets as the key drivers for the improved revenues. Business strategy is especially targeting healthcare,

industry and utility markets based on recent product launches in co-operation with technology partners and on the new “ONE” platform which will be launched in Spring 2024. Feedback from recent partner conferences in DACH and EMEA in February 2024 has been positive and customer feedback will be further integrated into R&D strategies.

For the company now, the focus for the business year 2023/24 is with an aim to streamline costs and investments in new customer platforms to optimise customer experience e.g. online configuration and ordering. The organisation has been optimised and will be further adapted to focus on especially core markets in DACH and Europe while partnerships with distributors and key account partners will be strengthened in the US and APAC markets.

Johnson Controls named overall pioneer for its smart building management platform

Johnson Controls, the global pioneer for smart, healthy and sustainable buildings, was named the overall pioneer for its smart building management platform in the Smart Building Management Platforms competitive assessment, conducted by ABI Research, a global technology intelligence firm.

Researchers assessed the Johnson Controls OpenBlue ecosystem of connected technologies and services, scoring it highest in implementation among nine other platform providers. The findings were reconfirmed in ABI Research’s 55 Technology Pioneers To Watch In 2024 report.



“Buildings contribute nearly 40% of global emissions and new levels of efficiency and sustainability

can only be achieved through digitalisation,” said Johnson Controls’ Chief Technology Officer - Vijay Sankaran, adding “This recognition that OpenBlue digital technology and services is the overall market pioneer is a testament to the ongoing dedication and commitment to innovation that we have to creating the smart buildings of the future.”

For this competitive assessment, ABI Research compared nine major commercial building platforms capable of digitising, capturing, managing, monitoring, and improving performance across a broad cross-section of commercial building verticals, applications, and portfolios.

Researchers scored Johnson Controls overall highest among the other providers based on the

company’s commitment to supporting existing and new clients with its highly functional OpenBlue platform and related services.

Researchers noted:

- The clear and long-standing commitment of Johnson Controls to serving the smart building management segment.
- The comprehensive Johnson Controls OpenBlue suite of offerings will help drive wide-scale smart building management awareness and adoption.
- The company’s commitment to supporting customers with its highly functional OpenBlue platform and related services.

“Johnson Controls was the overall pioneering vendor in ABI Research’s market assessment. The Johnson Controls OpenBlue architecture represents a cohesive and comprehensive suite of offerings to accelerate smart building management, build awareness and increase adoption of smart buildings,” said Rithika Thomas, Industry Analyst at ABI Research. Johnson Controls OpenBlue is an industry-pioneering ecosystem of connected technologies, expertise and services. Assessed as part of this research, OpenBlue Enterprise Manager (OBEM) is a suite of software solutions that form a comprehensive building performance management platform to power a new class of smart buildings that are secure, healthy and sustainable.

Combining data from across the building’s systems and utility bills, and using advanced digital experiences augmented with AI, OBEM provides more money-saving and emission-reduction actionable insights than possible with isolated, less connected systems, all while balancing occupant comfort. It also helps customers in simplifying carbon disclosure reporting and regulatory compliance with building performance standards.

With deployments across the globe-spanning commercial office spaces, healthcare, education, campuses and more, OBEM enables real-time data visibility across assets, people and processes, empowering customers to drive intelligent and proactive operations from a single pane of glass.

HID and Assa Abloy take airport security to new heights

HID and Assa Abloy have collaborated on an innovative project taking the travel journey to new heights – pairing self-boarding gates with advanced facial recognition technology to modernise the passenger experience.

The new self-boarding gate consists of HID's U.Are.U camera identification system – featuring advanced facial recognition technology – and the Assa Abloy Speed Gate to enable secure and seamless passenger ID verification for boarding. With one look, travellers move effortlessly through the biometrics-enabled self-boarding gate that helps shorten wait times and reduce airline staff workload.

Facial recognition is quickly becoming a preferred method for authenticating people in high-traffic, security-intense environments. It is quick, frictionless and accurate. Elite systems, like the HID U.Are.U camera identification system, offer fast, accurate



matching and reliable passive liveness detection to prevent spoofing – a critical requirement in busy areas such as airports with multiple ID checkpoints and limited attendants.

Boasting an ultra-modular design, the Assa Abloy speed gate is simple to install, and comes in a range of colours and sizes to complement almost any entrance. The speed gates also have a variety of security measures such as anti-tailgating, piggybacking and wrong way passage, and can handle high traffic volume in public areas with limited attendance. Together, these innovative offerings alleviate many hassles and frustrations associated with air travel: long lines, human errors, poor matching rates ... and replace them with reliable, swift identity verification for boarding.

The self-boarding gate system, created through the collaboration of HID and Assa Abloy, helps lift efficiencies and security while transforming the air travel experience with passenger-driven encounters. With the self-boarding gate system, a quick look is all it takes for authorised passengers to board the plane. In addition to the self-boarding feature, facial recognition transforms the overall airport experience by empowering a more secure, more convenient travel journey.

This journey starts with secure mobile check-in when an individual authenticates their ID document, such as a passport, and then matches a selfie to the ID photo to create their mobile travel credentials. The passenger then uses their face as a single token

to pass through the various airport ID checkpoints – from bag drop and security screening to duty-free shopping, VIP lounge access, boarding and more.

At each ID checkpoint, HID's AI-powered facial recognition camera matches the passenger's face with the travel credential created at check-in for identity verification. The process can be accomplished within seconds. The camera – lauded for its matching excellence even in challenging lighting conditions – excels within airport settings where backgrounds are busy and indisputable ID verification is required.

Qognify rebrands under Hexagon banner

Qognify, a prominent provider of physical security solutions, has rebranded under the Hexagon corporate identity and fully integrated into Hexagon's Safety, Infrastructure & Geospatial division. This move follows Hexagon's acquisition of Qognify in April 2023, signaling a new chapter in physical security and public safety innovation. With over 4,000 organizations globally relying on Qognify's video management software and security information management solutions, the integration amplifies Hexagon's comprehensive portfolio, including public safety solutions.



Mladen Stojic, President of Government, Transportation, Defense, and Security at Hexagon, emphasizes the rebranding's significance in fostering innovation and collaboration. This shift aims to redefine the future of physical security and public safety by unlocking synergies, enhancing capabilities, and broadening market reach.

Hexagon affirms its commitment to supporting Qognify's global partner network, offering partners access to expanded business opportunities and comprehensive solutions. Additionally, Hexagon prioritizes advancing the VMS upgrade program, empowering Qognify's Ocularis and Nicevision customers with enhanced capabilities.

The rebranding underscores Hexagon's dedication to driving advancements in physical security and public safety while solidifying its position as a global technology leader. ■

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INTELLIGENT VIDEO SURVEILLANCE IN RETAIL ENVIRONMENTS

By 2025, the video surveillance industry is expected to reach USD 82 Billion. Intelligent video analytics based software is becoming more than simply a loss prevention tool by being a critical instrument for business success. Rendering insights that deliver value to customers and increase loyalty, a camera for CCTV surveillance system with Video Analytics capability helps retail stores stay competitive.

There has been a strategic shift in the retail market from the goods retailers sell towards the customers who buy them. In short, retailers are looking to be more customer-focused. The retail industry has for some years been moving away from being product centric—all about the merchandise - to increasingly customer centric.

To fully achieve this customer focus, it has been

observed that greater organisational alignment and collaboration is needed in retail businesses in order to seamlessly satisfy customer needs. Tight cross-functional collaboration between Loss Prevention, Merchandising, and Sales/Service is necessary to deliver the desired customer experience. Further, new customer metrics must be used along with traditional metrics to manage performance and guide incentives.



Video management and analytics is playing an increasingly prominent role in the retail community's initiatives by assisting not only loss prevention, but also broader company wide goals. In short, rapidly evolving technology can assist retail organisations' initiatives to create superior customer experiences by:

1. Increasing Public Safety: Increasing the effectiveness and scalability of loss prevention staff by providing actionable real-time alerts as well as drastically improving the process of video review, which in turn reduces shrinkage, increases store safety, provides new training opportunities, and reduces delays in incident response;

2. Measuring Business Performance: Providing merchandisers new performance measures to help enhance store layout, signage, and product organisation;

3. Improving Customer Service: Accelerate checkout and reduce customer service wait times through real-time notification if queues exceed a certain time period set by the user.

What is Video Management and Analytics?

Video Management software turns CCTV video (either a live stream or recorded footage) into digitised and computerised data that can be stored, filtered, indexed and viewed for much faster data search and retrieval times. Video management software also enables applications such as remote camera control, switching camera views and other functions that no longer require dedicated hardware.

Video Analytics software is based on 'computer vision', a branch of artificial intelligence that maps pictures to descriptions. Without computer vision a picture of a store aisle is a simple grid of colour values. With computer vision, the aisle picture maps to an intelligent description of the scene and people in the image. The goals of computer vision are achieved by means of pattern recognition, statistical learning, projective geometry, image processing, graph theory and other related fields.

Though not a new science - research in computer vision dates back over 25 years – recent advances in the computational power of PCs, as well as computer vision technology, have allowed the science to move from theoretical science into reliable commercial video surveillance software. Moreover, because the applications of computer vision vary greatly and computational capacity continues to advance at the pace of Moore's Law, new market applications and their commercialization continues to be introduced in this rapidly growing market.

Today's software offerings combine the broad functionality and ease of use of its video management with the highly accurate detection rates of its analytics to bring unprecedented value to retail organisations enabling business intelligence gathering and security monitoring on one cost-effective platform.

From Image Capture to Image Analysis

Retail organisations record lots of video, with some large retailers recording well over 1 million hours of video per day. With the introduction of new software to current video system architecture immediately upgrades an installed solution from being a simple passive surveillance system to a proactive information analysis gathering and reporting tool.

Using computer vision technology, enables the system to see instantly, filtering extraneous data and delivering clear information in seconds. Experience has shown that the limitations of the human brain – due to its memory capacity, intrinsic biases and

distractibility – limits the quality and productivity of conventional human-based video monitoring and event review. The advent of video analytics software is completely revolutionising the way people use video. No longer is a person required to watch hours of continuous live or recorded video to analyse or identify interesting events. Rather, once the video analytics software detects unusual activity, it pushes

removing the need for the agent entirely.

Improve Surveillance Accuracy: Unlike humans who miss over 90% of scene activity after 20 minutes of continuous video monitoring, video analytics does not miss anything and greatly reduces the number of false conclusions.



System Scalability: For humans, large amounts of video data can prove to be a serious obstacle to quick, intelligent video analysis and incident response. With Video Analytics, analysis of very large amounts of video-derived data can be filtered through in a matter of seconds, reducing the need for extra personnel as an organisation's video surveillance needs grow.

only relevant information to the monitoring agent who can determine the appropriate response, or the software can initiate one or more automatic responses. The efficiency gains and tangible benefits of the latest intelligent video management software to the retail sector are significant:

Reduce Labour Cost: Labor costs can be reduced by either increasing the surveillance capacity of the monitoring individual (e.g. more video can be analysed per person); allowing for the redeployment of the agent to perform non monitoring duties; or

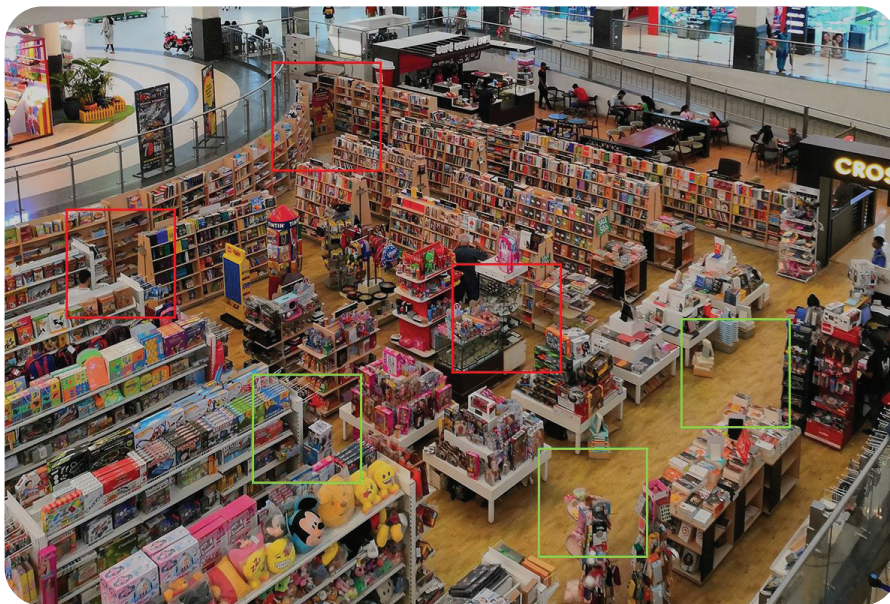
Operational Compliance: Unlike human based monitoring, where ensuring operational compliance is dependent on the integrity of those doing the job, Video Analytics adheres to customer defined rules and response processes. It also classifies, indexes, and archives every single scene event allowing for accurate reporting.

Loss Prevention

Intelligent video management software can positively impact any retailer's loss prevention initiatives. Below are some of the areas of contribution:

Real-Time Alert of Item Removal

The software can detect in real-time the removal of an item off the store shelf. This is especially valuable when applied to common theft items. The software can distinguish between a customer who removes a single item from a shelf (normal shopping behaviour) from a customer who removes five items from a shelf in a short period of time (suspicious shopping behaviour).



Improved Case Investigations Through Advanced Search:

Currently it can take retail loss prevention professionals many hours to review recorded

video to find a specific incident. Not only is manual review of video data expensive, but it is highly ineffective and delays responses to events. Independent studies have concluded that a person's attention span decreases the longer the video review takes place, making a successful apprehension more difficult. With the use of intelligent software, searching through video data for events that used to take hours can now be done in seconds. For instance, with three clicks of a mouse, a user can filter through 30 days of video footage to find in seconds and receive a continuous movie of all qualifying video data. This same search without the advanced search capabilities of the software would require sifting through 720 hours of video manually.

In addition to the labour cost savings, retailers further benefit by having the loss prevention staff in more customer facing situations as opposed to being in an office reviewing videos.

Public Safety

While personal safety is priceless, there is a cost to providing a safe store environment for staff and customers. Today's softwares can watch for potentially troublesome individuals/groups, vandals, movement in alarm zones, and loitering without putting store personnel at undue risk during the monitoring process. At the same time they can permanently record and index for easy retrieval, any incidents which may need real time or forensic review.

Compliance

Intelligent Softwares can also identify variant behaviour from store compliance rules. For instance, the software can generate an alert when people exit the store and trigger Electronic Article Surveillance alarms, thus ensuring that store staff inspect the customer's receipt before leaving the store. Activity after business hours can be flagged and often upon review and store personnel can be observed not following protocol. Alerts such as these yield valuable information and data regarding staff adherence to corporate and individual store protocols. Are receipt checks being properly done? Is there merchandise being lost due to lack of diligence by staff? Are there internal theft issues? Modern software can provide answers to some of these questions.

Consumer retail behaviour is affected beyond traditional marketing techniques like product placement and pricing. For any retailer, each store is the medium through which consumers connect with products. It is well-known that store layouts can affect the time consumers spend in the store, how they navigate through the aisles, and how they allocate their attention and money across departments. With the use of software, there are new performance measures available that can add tangible, actionable insight to monitoring and evaluating store performance.

Key Performance Indicators Store Traffic (locally or across different stores)

• Shopping path



• Aisle penetration

• Dwell time

• Conversion rate (with integration of POS)

People counting at an entrance can serve as a measure of consumer demand or sales potential at any given time. Store traffic and conversion rates can be used for a number of applications and KPI metrics including the evaluation of store promotions and floor sales and customer

service staff. When these counts are combined with POS systems, retailers can calculate purchase conversion rates, a known KPI for store productivity. By noting the dominant paths and directions that shoppers take through the store, merchandisers position signs and displays to catch the customer's attention. In addition, recording how long customers spend at various locations (dwell time), marketers can identify points where shoppers will be most receptive to communication. Tracking a shopper's path through the store and monitoring which areas are trafficked help to identify new cross-selling opportunities. Video analytics can also pinpoint crowding conditions and bottlenecks in traffic flow that suggest a need to widen aisles or reposition product displays. Finally, measuring queue lengths at checkout and the potential to identify problems with customer service is also a plus.

By counting the numbers of customers who enter the store and walk through each aisle, retailers can create thermal maps showing the percentage of customers who penetrate each section of the store and provide valuable information and trend analysis regarding store traffic and flow patterns. If some sections are visited frequently, this may suggest the need to provide navigational aids, reposition product displays and/or revise the store layout for improved traffic flow. It is also possible to cross check the video data with observational research to get further insight. This is not available by using other methods of traffic flow analysis.

Using the outcomes of the performance measures available in software, retail businesses can positively impact the following areas:

- Improve the shopping experience by reducing wait times: Flag long lines or excess customer wait times in real-time help to reduce end customer frustration and potentially negative customer experience.
- Streamline the shopping process: keep aisles free of obstacles and position "hot" items (for example, heavily discounted items) in a convenient and well-marked location.
- Provide sufficient time and space to buy: By highlighting crowd density and people counts, retailers can reconfigure shop layout to provide ample room to shop or ensure the appropriate sales support for complex products such as laptop computers. By eliminating crowded conditions which cause people to shop quickly and leave without buying accessories (such as batteries, extended warranties), retail stores can positively impact top line revenue and store profitability.

- Accelerate checkout and customer service: Long checkout lines can discourage customers from returning. Software can help identify excessive queuing and alert store managers. In less busy store areas where a full time sales associate is not justified, video analytics can automatically notify sales associates to assist shoppers. Reports can be generated which can suggest unfulfilled consumer demand caused by excessive waiting throughout the store.

Correlate Surveillance with POS Data

According to a recent survey, on a per-case average, employees steal almost 5.7 times the amount stolen by shoplifters. Much of that theft occurs at the POS terminal, making it a critical area for monitoring. Some of these software developers also work with leading POS and analytics vendors to integrate POS transaction data with video images and alarms or alerts for each terminal. With these solutions, it's possible to:

- Time-stamp POS transactions on the video as they are being recorded to detect employees who alter sale tags, charge lower prices, allow multiple items through, or miss items
- Be alerted to unusual product returns
- Identify suspicious behaviour at the POS and alert loss prevention staff in real time to prevent theft Send actual images of suspicious behaviour or activity to designated monitors

Many software are open, standards based IP applications running on Microsoft Windows client/server platform that have been successfully deployed in a variety of store environments to enhance customer-focused initiatives by improving loss prevention, public safety, compliance and business market intelligence. The software packages can be easily deployed on standard, commercial, off-the-shelf shelf Windows-based PC/servers.

Credits: Aimetis Corp., a Canadian hi-tech company and a leading developer of video management and analytics software for the security and business intelligence markets. Its award winning, the Aimetis Symphony™ software is an intelligent video surveillance software that offers a single, innovative, open IP video platform for video management, video analytics, system integration and alarm management. ■

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Fingerprints taps Freevolt S-Key to bolster the security of its Gothenburg HQ

Biometrics company, Fingerprint Cards AB (Fingerprints™), has upgraded the physical access security of its Gothenburg HQ. S-Key biometric access cards from Freevolt Technologies Limited, which embed Fingerprints' own T2 sensors, have been implemented across the entire Gothenburg site.

The updated authentication system further strengthens Fingerprints' workplace security and enables role-based access control, whilst ensuring a convenient and easy-to-use experience.

Fingerprints' Gothenburg HQ has security gates to enter and exit the building, and restricted areas for hardware and software R&D. By replacing access keyfobs with biometrics access cards, site-wide security has been enhanced and role-based access control has been enabled to better control access to sensitive areas of the site.

By replacing traditional security methods based on something they know/have with something they are, multi-factor authentication has been enabled



while maintaining convenience for employees.

Caroline Krüger, CHRO of Fingerprints comments: "The workplace has evolved significantly in recent years. At Fingerprints, we offer hybrid working whilst

still ensuring our workforce has 24/7 access to HQ. Amidst this dynamic working environment, it is essential our team feels the workplace is accessible and safe. This requires a flexible, secure and convenient access control solution."

Fingerprints has implemented Freevolt's flagship biometric access card solution, S-Key. The solution eliminates the security risk of lost or stolen cards, without adding infrastructure costs. The card incorporates Fingerprints' latest 'T2' sensors which deliver optimised image quality, processing speed and power efficiency.

Adam Philpott, CEO of Fingerprints comments: "To meet today's security challenges we must move away from traditional security methods. And, as a biometrics company, it is important that we lead the way in ensuring robust, frictionless security in our own operations."

"There is an opportunity here too; what can we learn, what innovations will we identify by using these systems day to day? I look forward to continuing our strong and innovative collaboration with Freevolt technologies."

Gonzalo de Gisbert, Head of Product & Business Development at Freevolt Technologies, adds: "Fingerprints are pioneers in biometrics, with sensors in billions of products, so they know what makes a good biometric solution. We're therefore thrilled that Fingerprints has chosen S-Key to strengthen security at their global headquarters, in Gothenburg."

"Our pioneering radio frequency energy harvesting technology combined with Fingerprints' 'T2' sensors, known as FPC 1323, enables S-Key to be completely battery-less, lasting for many years. Roll-out was seamless, with everyone set up in less than 1 hour. That's simple, safe, and secure biometrics, powered by Freevolt."

Digital locking helps airport improve regulatory compliance

Helsinki Airport is a busy transport hub, with a network of flights connecting Finland with cities across Europe, Asia and beyond. Managing access in such a dynamic environment is a challenge.

This challenge extends to the control of access to cupboards, drawers and cabinets where travel documents are stored — in the spotlight after new EU guidance on logging access to these documents.

Previously, security for cabinets in Helsinki's check-in area required airport managers to issue and track around 100 mechanical keys per airline. It took time and was a distraction from other important tasks. Airport operator Finavia sought a more convenient way to manage and monitor cabinet access, replacing mechanical locking with a streamlined electronic solution.

Cabinets are often small, hard to wire and easily damaged. Thus, Finavia sought a neat solution which did not require them to fit a bulky locking device or a separate RFID reader. And because the airport already had a Lenel access control solution in place, seamless integration — without extra software or database installation — was another essential requirement.

“Safety, functionality, durability, security of supply and usability were the reasons we chose the Assa Abloy solution,” explains Kari Mäkinen, Senior Access Control Specialist at Helsinki Airport.

Helsinki's airline check-in desks are now equipped with Aperio KL100 electronic cabinet locks. The KL100 is small and has a minimal footprint. Wireless, battery powered and with an inbuilt RFID reader, it is easy to fix to almost any cabinet, locker or drawer without cabling or causing damage. Different sizes and cam-lengths make the lock adaptable to securing sensitive spaces in almost any workplace.

“Before KL100 cabinets were managed with mechanical keys, with no specific control over who had the key and who had opened the cabinet,” adds Kari Mäkinen. Now, the automated log shows exactly which airline opened any cabinet, and when. It's efficient and hassle-free.

For high convenience, a KL100 has an integrated reader which may be unlocked with mobile keys (via NFC or BLE), as well as smartcards or fobs

using all major RFID technologies. And because the Aperio platform is built from the ground-up for compatibility, the KL100 Wireless Cabinet Lock integrates seamlessly with the airport's Lenel system. Finavia were able to choose a best-in-class solution without having to compromise.



Image Courtesy of Assa Abloy

Operations at the airport are more streamlined. No one needs to handle or track thousands of mechanical keys, saving time and costs spent on logistics. Every employee's individual access may be revoked at any time from the Lenel control panel and it's simple to audit all cabinet access if an incident occurs.

After 18 months of operation, according to the company, the solution for check-in desks has been a success. Airport managers have ordered additional Aperio KL100 devices for airport departure gates. Multiple connectable Assa Abloy solutions are already deployed alongside the digital cabinet locks, including wireless Aperio door handles; Protec2 Cliq electromechanical locking devices; and keyless, mobile-operated Abloy padlocks to secure fencing and cargo.

“The availability of all these solutions from a single manufacturer — easily used with their existing access control solution — has helped Finavia to tailor a unified, integrated system at Helsinki Airport,” says Lars Angelin, Business Development Manager at Assa Abloy Opening Solutions EMEIA.

5-Star GoldenEye Hotel & Resort boosts profitability with IDIS

The new GoldenEye Hotel and Resort on the Bulgarian and Turkish border – Europe’s largest casino development, opened this year by BC Industries – is providing enhanced security with more efficient guest services thanks to a 600-camera video surveillance solution from IDIS.

The advanced camera system combines 24/7 visibility over gaming tables and public areas, fault-free image capture and recording of UHD video footage, a more efficient real time monitoring platform for multiple users, and options for rapid targeting of AI analytics.

As well as meeting the higher security requirements typical of casino operations, the system from South Korea’s largest in-country video tech manufacturer supports the GoldenEye resort in providing a more impressive welcome for hotel guests with full visibility over corridors, communal areas, and back-of-house operations ensuring the ultimate guest experience. The end-to-end solution has been installed by Volga Elektronik to cover the casino, hotel, and car parks.



A combination of IDIS 12MP Super Fisheyes, 8MP IR and 5MP IR dome cameras allows broad scene surveillance of all internal areas, without blind spots, plus targeted coverage of priority locations such as cashier cages and slot machines. High-definition image capture allows gaming tables to be monitored in fine detail with operators able to identify card suits, chip denominations and quickly detect any suspicious player activity, regardless of low light or cigarette smoke.

Instant and smooth dewarping of the fisheye images supports efficient real time viewing and playback, allowing incidents to be resolved rapidly

and preventing game stoppages. This ensures positive experiences, and confidence, for both customers and staff.

External areas, including parking bays and entrances, are covered using IDIS 5MP IR bullet cameras and 2MP IR PTZs. The system also comprises seven 64-ch NVR recorders; and IDIS Solution Suite enterprise-class VMS and Critical Failover to protect continuous access to video and provide full redundancy in the event of a range of fault conditions.

IDIS Solution Suite VMS allows 24/7 monitoring by six operators and two supervisors, using a control room video wall, with live viewing and simultaneous playback. The solution is NDAA compliant, with inherent cybersecurity protection; and it meets GDPR requirements, with IDIS’s dynamic video privacy masking allowing footage to be easily exported without privacy infringement.

“IDIS video technology is perfectly designed for casino security,” said Mert Çalışkan, BC Industries’ Casino Operations Director. “Our new system gives us all the advanced surveillance capabilities we need to protect our guests and our facilities. And we’ll be able to easily adapt and extend it in the future and take advantage of exciting new capabilities.”

In the next project phase, analytics data integration with the casino’s ERP software is being introduced, along with transaction data overlaid on recorded video for efficient incident investigation. Koray Ozyildirim, IDIS Türkiye Country Manager confirmed that the resort would be taking advantage of this future proofing capability that comes with all IDIS technology.

“Across the casino sector there is huge potential for adopting IDIS AI video solutions and integration capabilities,” he said. “IDIS’s industry leading analytics are flexible and powerful and can be targeted at specific locations to enable highly accurate people counting, heat maps and occupancy monitoring. Along with seamless systems integration this will increasingly deliver a host of competitive advantages including enhanced security, better customer service and, ultimately, greater profitability.”

Surveillance Cameras provide peace of mind for New Florida homeowners



Overview:

A Florida homeowner invested in a \$10 million spec home sought to integrate a comprehensive surveillance system for their expansive property, spanning 2 acres with a 15,000-square-foot residence and a 2,800-square-foot clubhouse. Cloudbusters, Inc., known for their tech integration expertise, was enlisted for the project, building upon their successful collaboration on a previous tech integration project in the Midwest.

Challenge:

Initial surveillance cameras installed by Cloudbusters failed to meet the homeowner's expectations, particularly in coverage and control. Stephen Muenstermann, part of Cloudbusters' systems integration team, explains, "The standard stationary dome cameras we had installed weren't able to provide the coverage the homeowners wanted... They wanted to see more and control more."

Solution:

Snap One's release of the Luma x20 cameras presented an opportune solution. Muenstermann notes, "Naturally, we offered to swap the original cameras for the new Luma x20 cameras...We found the coverage provided by the sophisticated tracking and notification technology of three Luma x20 cameras comparable to the coverage of nine stationary cameras."

Results:

The Luma x20 cameras proved transformative. Muenstermann recalls, "The homeowner was floored when he discovered he could now make out the details of a person's face and read the lettering on their shirt." Moreover, the Smart Tracking capabilities of the x20 cameras offered automated pan, tilt, and zoom features, enhancing monitoring efficiency.

Integration:

Cloudbusters seamlessly integrated the new cameras with existing infrastructure using Control4 technology. Additionally, they introduced a Luma NVR to record footage and streamline event review, ensuring a unified surveillance system.

Remote Management:

Muenstermann emphasizes the significance of remote access capabilities, stating, "In addition to minimizing time and labor to set up the system initially, the integration with Snap One's OvrC cloud-based remote management and monitoring platform allows us to modify settings and initiate updates from afar."

Conclusion:

The deployment of Luma x20 cameras not only met but exceeded the homeowner's expectations, providing comprehensive surveillance coverage and advanced features for enhanced security and peace of mind.

OSDP vs. Wiegand: Which Access Control Protocol is Right for You?

Access management systems form the backbone of physical security, enforcing who or what can access certain areas or resources. As a cornerstone of access management, these systems ensure that designated areas or resources remain accessible solely to authorised individuals or entities, and when it comes to securing your business or building, they play a crucial role. At the heart of these systems lie communication protocols that allow data exchange between readers and controllers.

Two prominent protocols in this space are Open Supervised Device Protocol (OSDP) and Wiegand. While both protocols have been designed to facilitate access control, they differ significantly in terms of technology, security, functionality, and flexibility. Let's delve into the differences between OSDP and Wiegand to help you determine which one is best for your needs.

The Origin of the Protocols







John Wiegand invented Wiegand technology in the 1970s, pioneering the magnetic system that later formed the basis of Wiegand cards, which became a key component of access control systems in the 1980s. The term "Wiegand" encompasses several concepts, including the Wiegand effect, the Wiegand wiring standard, and the Wiegand protocol.

Wiegand is a technology invented in the 1970s by John Wiegand who pioneered the magnetic technology behind Wiegand cards that became an integral part of access control systems in the 1980s. The term Wiegand actually refers to a variety of things, such as the Wiegand effect, the Wiegand wiring standard, and Wiegand protocol.

Initially, the Wiegand protocol was valued for its robustness and simplicity, offering reliable performance that withstood physical stress and operated effectively in challenging environments. Its straightforward design made it a longstanding industry standard in access control systems. However, as security technology advanced to address modern risks, the protocol's limitations became more apparent. It does

not support encryption, leaving it vulnerable to security breaches, and its data output capacity is restricted, which limits its ability to support advanced user interfaces and comprehensive feedback.

Historically, the Wiegand protocol has offered notable strengths, primarily its reliability and simplicity. Its robust design made it the industry standard for years, able to withstand physical wear and tear and operate reliably even in challenging environmental conditions. However, as access

OSDP™	vs.	Wiegand
Approved in 2020 by the International Electrotechnical Commission (IEC 60839-11-5), OSDP is a true standard with an active development community.	INTERNATIONALLY APPROVED? ✓  ✗	Not internationally approved, Wiegand is an outdated file format from over 40 years ago and has not been updated since 1996.
Has Secure Channel AES-128 encryption and authentication to prevent eavesdropping.	CYBERSECURITY BUILT IN? ✓  ✗	Possible to "listen in" on reader-panel connection and extra data, open or block doors or clone credentials.
Designed to be a simple, interoperable and cost-effective replacement for Wiegand.	COST EFFECTIVE? ✓  ✗	Requires more wire, manual updates and does not allow mixing and matching of components.
Supports multi-drop installations, allowing one cable to "daisy chain" multiple readers and a single controller. Readers/devices can be up to 4,000 feet from panels with proper cabling.	INSTALLATION FLEXIBILITY? ✓  ✗	Home-run installations required; wire must be run from each reader back to panel. Readers must be within 500 feet of the panel.
OSDP provides secure, bi-directional communications, which allows for configuration and firmware updates directly from the panel in addition to tamper proofing of readers.	BI-DIRECTIONAL COMMUNICATION? ✓  ✗	Wiegand does not support bi-directional communications. Tech must physically remove each reader or visit each reader with configuration cards.
Meets Federal PKI/FICAM requirements that specify encryption standards.	FEDERAL COMPLIANCE? ✓  ✗	Wiegand does not meet Federal PKI/FICAM requirements.



control systems evolved to meet contemporary security demands, certain limitations of the Wiegand protocol became evident. It lacks encryption protocols, leaving it exposed to potential security threats. Moreover, its data output capacity is limited, constraining the implementation of advanced user interfaces and comprehensive user feedback mechanisms. Wiegand is an old protocol with a long history of use in access control systems. It also lacks formal standardisation, leading to variations in its implementation.

OSDP was developed by the Security Industry Association (SIA) as an open standard protocol to overcome the limitations of older protocols like Wiegand. It was created to improve security and interoperability among access control devices.

Data Transmission and Security

The way these protocols handle data transmission and security is where we see the most significant differences.

- **OSDP:** This protocol uses a bidirectional communication model, allowing for more complex interactions between readers and controllers. It incorporates encryption, typically based on the Advanced Encryption Standard (AES), offering a secure channel to prevent eavesdropping, spoofing, and tampering.
- **Wiegand:** This protocol uses a one-way communication model, where the reader sends data to the controller without any feedback. Wiegand does not have encryption, making it susceptible to interception and replay attacks. Its non-standardized security framework also increases vulnerability to tampering.

Functionality and Features

Beyond security, OSDP

and Wiegand differ in terms of functionality and additional features they support.

- **OSDP:** Because of its bidirectional communication, OSDP supports advanced features like device supervision, diagnostics, status reporting, and remote firmware updates. This flexibility allows for multi-factor authentication, biometrics, and smart card integration—key features for modern access control systems.
- **Wiegand:** Due to its one-way communication design, Wiegand has limited functionality. It is primarily used for simple data transmission from card readers to controllers. It doesn't support features like device supervision, diagnostics, or firmware updates, limiting its utility in more complex access control environments.

Interoperability and Flexibility

Another critical aspect to consider is the level of interoperability and flexibility offered by these protocols.

- **OSDP:** As an open standard, OSDP promotes interoperability among devices from different manufacturers, making it easier to integrate various components within a single system. It uses a standardised RS-485 interface, allowing for longer cable runs and reduced susceptibility to electromagnetic interference.
- **Wiegand:** The non-standardized nature of Wiegand can lead to compatibility issues between devices from different manufacturers. It uses parallel signal lines, limiting cable length and increasing the risk of electromagnetic interference.

Implementation and Adoption

While OSDP is increasingly gaining traction due to its advanced

features and security, Wiegand remains widely used because of its long-standing history and compatibility with legacy systems.

- **OSDP:** With its bidirectional communication, encryption, and support for advanced functionalities, OSDP is becoming the preferred choice for new access control systems. As security needs grow and systems become more sophisticated, OSDP is poised to become the dominant protocol.
- **Wiegand:** Despite its limitations, Wiegand still has a considerable presence in the industry, mainly due to the vast number of legacy systems that use it. However, as security concerns increase and the need for advanced functionalities grows, the adoption of Wiegand is likely to decline.

When choosing between OSDP and Wiegand, consider your security needs, desired functionality, and the potential for future scalability. SIA says to compare OSDP vs. Wiegand over six factors, namely - Cybersecurity, Cost Effectiveness and Total Cost of Ownership (TCO), Installation Flexibility, Bi-directional Communication, Federal Compliance, International Approval

OSDP offers enhanced security, flexibility, and advanced features, making it ideal for new installations and modern systems. Wiegand, with its one-way communication and limited security, is better suited for legacy systems and simpler access control environments. As the industry evolves, the trend is clearly leaning toward OSDP for its robust security and versatility, signalling a shift away from Wiegand. If you're considering upgrading or implementing a new access control system, OSDP is likely the best choice for a secure and future-proof solution. ■

9 Tips for Selecting the Best VMS for the Job

When it comes to security projects, video management software only accounts for around 10% of the total costs. That said, the choice of VMS can have a big impact on what is spent on hardware (e.g., cameras, servers), other software (e.g., access control systems, third-party analytics) and recurring maintenance fees.

With that in mind, below are nine factors suggested by Milestone Systems to help select the best VMS for the job.

1. Project size

Project size considerations encompass the number of physical locations and required security cameras per site.

For single or multisite projects with up to 100 cameras, Video Surveillance as a Service (VSaaS) may be suitable due to its benefits, including lower upfront costs and simplified configuration. VSaaS offers a comprehensive service package, including hardware, software, and cloud storage, making it an attractive option for smaller-scale projects. However, as the camera count exceeds 100, VSaaS can become impractical due to bandwidth and storage requirements, according to Milestone Systems. In such cases, a professional integrator can offer guidance on alternative solutions. The choice between VSaaS and cloud-managed VMS depends on project size and associated

service costs. Larger projects may require VMS providers capable of supporting hundreds of cameras across multiple sites, but options for projects exceeding 1,000 cameras become more limited.

2. Network stability

Network instability can result in dropped frames, latency, and buffering, leading to degraded video quality and missed events, particularly in larger projects. Therefore, minimizing network load and reducing costs is essential, especially for extensive deployments.

VSaaS requires a stable network and is favored by retailers, but may not be suitable for high-risk sectors like law enforcement or critical infrastructure.

For large projects with many devices per site, a “federated” system works well if the network is stable. Federated architecture is common within sectors like critical infrastructure where centrally monitoring and managing remote sites is the norm. For example, some utility sites are unmanned on a day-to-day basis, and so remote monitoring is crucial to alert a core team to, say, a leak in a water supply system.

In cases of unreliable network connections across multiple sites, a VMS that allows sites to function independently during connection loss is necessary.

3. Video quality

Considerations for frame rate, resolution, and continuous versus event-based recording impact the efficiency of VMS and recording servers, particularly with increasing camera count and storage retention time. VMS choice should align with camera count and video quality needs, with efficient recording servers being essential for higher camera counts and video quality requirements. Adaptive streaming capabilities in VMS reduce network load, especially for higher streaming quality needs. Support for H.265 compression is necessary for very high-resolution video streaming, while H.264 suffices for most demands. Hardware acceleration support in a VMS enhances performance and reduces power consumption, regardless of compression choice.

4. Analytics

The choice of VMS is largely dictated by the size of the project, another significant factor is the type of analytics needed, for example a basic form of analytics is line crossing.

- For basic camera-side analytics the hardware requirements of VMS alternatives is less of a consideration.
- Where cameras are already installed from different manufacturers, then the VMS needs to be device-agnostic.
- For more heavy-duty analytics, compare the storage, RAM and processor requirements

specified by the VMS alternatives being considered.

- If integration with third-party analytics is needed then the feasibility should be checked and whether there could be any integration fees charged by the VMS provider.

5. “Ease” versus customisation

According to Milestone Systems, there’s no clear-cut answer to prioritizing ease of use or customization in VMS selection. While ease of use can accelerate implementation, reduce training costs, and minimize errors, complex software can become user-friendly with regular use. Investing more resources in installation and training initially can provide long-term flexibility. For projects involving legacy hardware, opting for a device-agnostic solution is advisable. Additionally, for environments requiring mix-and-match integrations, an open-platform VMS is recommended for better adaptability.

6. Technical support

Technical support for VMS is crucial as it’s part of a larger security setup. Customers typically rely on system integrators to handle support cases with VMS providers due to their holistic understanding of the system. Reputable VMS providers have a network of resellers/integrators and standard service level agreements (SLA) with them. Users must ensure support via integrators is included in the SLA. Buying the VMS does not automatically entitle the user to service from the organisation that they purchased the system from.

In high-risk sectors, VMS providers offering 24/7 direct technical support are essential

to minimize downtime.

7. Cyber security

A crucial cybersecurity feature in a VMS is central password management for video cameras. Many cameras ship with default admin passwords easily accessible online, leaving systems vulnerable if not updated. An ideal VMS automatically sets new admin passwords for connected devices, eliminating the need for manual changes and reducing vulnerabilities. Choosing a provider with a dedicated incident response team and frequent patches further reduces the risk of cyberattacks.

8. Pricing

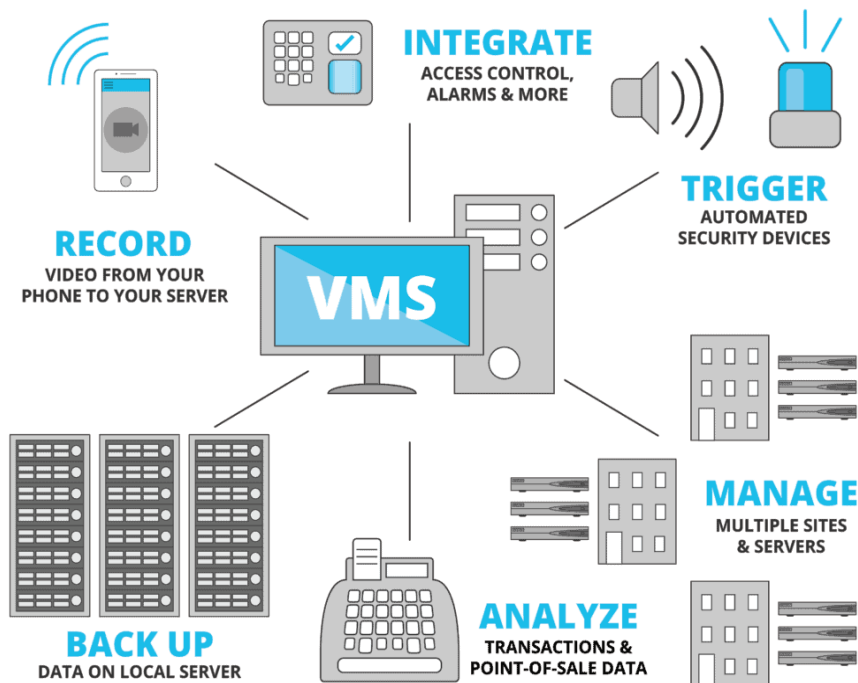
When it comes to licensing models, VSaaS involves a recurring license fee, while on-premises VMS providers offer a perpetual license, meaning you own the software indefinitely.

However, perpetual licenses may not include software maintenance. For projects with existing hardware, an open-platform VMS can lower initial

costs. If the VMS doesn’t charge for third-party integrations, recurring costs can be reduced. Conversely, for projects with minimal hardware and a preference for ease over customization, a closed VMS may be preferable, despite higher initial costs, potentially saving on training expenses in the long run.

9. Vendor reputation

According to Milestone Systems, smaller vendors often win most VMS projects due to their focus on smaller-scale security projects, typically involving fewer than 50 cameras. Conversely, larger, high-risk projects tend to be won by global VMS providers with extensive security solution experience. Regardless of project size or scope, assessing the reputation of VMS providers through official and unofficial customer review sites is feasible. Milestone Systems advises careful consideration of these factors when selecting a VMS to ensure suitability for both current needs and future adaptability. ■



AI-Powered Video Security Cameras Offer Smart Technology Solutions By Adding Value

BY HIKVISION INDIA

HIKVISION®



The CCTV (Closed Circuit Television) as we know it, has come a long way from being a physical security device, The CCTV has evolved from analog Camera to IP Camera avatar and over the decades got multiple technology upgrades. With growing demand for security, Video Security Cameras kept on evolving with IoT technology transformations into a Smart Security System.

The advent of Artificial Intelligence of Things (AIoT) Artificial Intelligence (AI) powered advanced video security cameras. The buzz about AI and its all-pervasive intelligent applications are accepted and appreciated across the verticals. Now AI powered Video Security Cameras are set to transform the end-

user experience. These Next-generation AI Powered Video security cameras are a unique blend of technology prowess and edge-based video analytics.

The AI Powered Advanced Video Security Cameras are offering Smart Security Solutions, Alerts and Business Intelligence (BI) with value added AI analytics. AI Analytics is a subset of Artificial Intelligence technology that applies machine learning to get insights, define patterns and discover the links within the datasets.

In the physical security domain, AI Analytics applies algorithms for automatic detection, categorization and analysis of objects and motions

based on video data. Smart solutions offered by AI Analytics have some of the benefits related to cost and response time. It also facilitates new practices and processes to resolve the core security issues.

The multiple use cases of AI Analytics, including myriad application scenarios are gaining popularity and market acceptance. These include Facial Recognition, Vehicle Identification, Intruder Detection, Hard Hat Detection, Fall Detection and People Counting, etc. It is interesting to note how the AI analytics work through the various application scenarios.

Facial Recognition

Facial Recognition Technology is a subset of AI Analytics technologies. It is by far one of the safest identification methods to effectively reduce the risk of unauthorised access. Its application scenario includes Access Control, Time Attendance and Visitor Management.

Vehicle Identification

The Vehicle Identification is the solution offered by AI Analytics. It reads the number plate through ANPR camera and does the analysis of vehicles on the basis of colour, type, manufacturer, and even travel direction. It is done automatically with the help of algorithm-embedded cameras at the entry & exit points. The vehicle identification technology is used for various scenarios including Entrance and Exit Management, Traffic Violation Management and Dock Management.

Intrusion Detection and Intruder Identification

In the physical security system domain, the most critical part of an intrusion detection is identification of the intruder and avoiding the causes of false alarms triggered by pets, animals, leaves, heavy rain, etc. Here AcuSense Technology helps in the automatic detection of humans and vehicles through real time video analytics. The AcuSense technology applies deep-learning algorithms for these critical functions. It is being used for various application scenarios, including Command and Control Centers, Warehouses and Residential Properties.

PPE Detection:

Personal Protective Equipment (PPE) detection is a technology that employs cameras and deep-learning algorithms to automatically identify and alert PPE violations – for example, not wearing hard hats in high-risk working areas such as construction sites and

mines. This PPE detection technology is applied in several high-risk working environments. It is applied in construction sites, factories and warehouses and mines.

Fall Detection:

The Fall Detection is an AI analytics technology enabled solution. It uses machine perception and video analytics to detect persons falling in a pre-selected area monitored through next-generation video security cameras. It was designed especially for those, who suffer from illnesses or disabilities, triggering instant alerts to authorised personnel so that they can take immediate actions. The Fall Detection technology offers great help and protection in a variety of scenarios, including Nursing Homes and Hospitals, Senior Citizens and Public Areas.

People Counting:

People Counting is another solution offered by AI analytics enabled technology that uses specifically designed cameras and deep-learning algorithms to automatically measure customer flow through a door or within a certain area in retail stores, malls, public places or buildings.

Flow Control:

The Flow Control Technology enabled solution provides timely alerts to the command and Control Room when the number of people in a specific business environment reaches the particular threshold pre-set by the management. It helps the facility managers and security guards controlling the crowd flow. This technology helps the effective crowd management, which can be ensured by limiting the number of visitors in a particular crowded zone. The Flow Control Technology supports compliance of crowd safety parameters.

This technology helps the effective crowd management, which can be ensured by limiting the number of visitors in a particular crowded zone. The Flow Control Technology supports compliance of crowd safety parameters, it raises alerts, when the threshold is breached.

Queue Management

The Queue Management solution is driven by AI Analytics. It helps in an effective way to manage the queues. AI-powered cameras trigger a notification when the number of persons in line or the wait time of each person exceeds thresholds set by store operators. ■

How Simulation And Modelling Is Improving Fire Safety

BY STUART NATHAN

The use of computer simulation in designing buildings and structures for fire safety began with a tragedy and an unusual discovery. On an evening in November 1987, a seemingly innocuous fire on an escalator at King's Cross Station, one of the busiest interchange hubs of the London Underground network, suddenly developed into an inferno, with a jet of flame rushing up the escalator shaft into the ticket hall, which quickly filled with smoke. The fire killed 31 people.

In the subsequent investigation, AEA Technology at Harwell in Oxfordshire used the digital modelling technique Computational Fluid Dynamics (CFD) to try to understand how a fire that had seemed so small – the London Fire Brigade and British Transport Police had attended but observed only a fire the size of a large cardboard box with few visible flames, and ordered a slow evacuation – could have escalated so severely. The models indicated that a hitherto unknown mechanism was at work, which the researchers named the ‘trench effect’.

The simulation suggested that air currents had confined the fire in the narrow trench of the escalator, between the walls supporting the handrail, and that this had heated the wooden treads of the escalator steps and the greases lubricating the machinery beneath to the point where flammable gases were released, which then ignited to form the flame jet powerful enough to blow people off their feet.

“It was the first time that CFD was proven to make a prediction ahead of experiment,” explains Guillermo Rein, professor of fire science at Imperial College London’s Department of Mechanical Engineering.

“The effect had not been known to humanity before and it suggested that if you have fuel for a fire in a closed trench where the air cannot come in at the sides, it forces the flames to get closer to the fuel and

that accelerates greatly the spread of the fire.”

The research had been done by people not specifically working on fire, but on general thermo fluid behaviour, Rein says, and was at first met with scepticism. But it was then confirmed by an experiment by an eminent fire scientist, Professor Dougal Drysdale of Edinburgh University.

“Normally you’d start with an experiment and then explore further with digital models, but this was the other way around,

and that’s when the use of CFD in fire science really started.” Rein says.

There are two ways of designing fire safety in buildings, according to Rein. Most building design around the world is prescriptive, he says: carried out in accordance with codes and standards. “The book would say you have a corridor of defined dimensions, and that would link to an atrium, also of defined dimensions, and so on. You’d submit this to the planning regulators, and they’d approve it because it complied with the code, even though it’s not really engineering: the designer doesn’t really have to think or calculate or make many decisions.”

Such prescriptive design is now being gradually superseded by performance-based design, which is a freer approach depending much more on CFD simulation. After producing an initial design



with architects, building engineers conduct many simulations of different types of fire, in various locations in the building, with windows open or closed, with sprinkler systems operational or failed and so on, and use these simulations to demonstrate to the authorities that the design meets the level of safety equivalent to the regulations. Any questions the regulators might pose can also be addressed using simulation.

Performance-based design is expensive, and tends to need large teams involved from the start of a project, so is mainly confined to large, prestigious commercial buildings. Standard residential building tends to be prescriptive and not innovative. Changes in design to improve fire safety in such projects depends on updating building codes – a lengthy and controversial process, as is becoming clear from the enquiry into the fire at Grenfell Tower in 2017.

It is not simple to use simulation to model fire, because of the large number of factors involved in fire behaviour. “It involves chemical reactions between fuel and oxygen, it involves thermodynamics, and it involves fluid mechanics, mostly in the behaviour of gases but also to a lesser extent liquids, and all three of these interact with each other in complex ways,” Rein says.

There are always unknowns. In performance-based design, project teams must determine their ‘design fires’: the types of fire they design the building to resist. “You can’t design against a situation like the Great Fire of London, because you’d end up with bunkers or igloos: they’re super-safe but nobody would want to live or work in them. Defining the ‘design fire’ which you design against is a big question and needs discussion between the client, the architect, the engineers and the authorities.”

As it’s neither practical to design against huge, relatively unlikely explosions or tiny fires which would be simple to extinguish, much thinking goes into designing a ‘worst credible case’ against which a building would be safe.

Recent fire safety concerns include the wildfires influenced by climate change, fires resulting from ignition of lithium-ion batteries, and the risks associated with greater use of materials like wood, which have less environmental impact than conventional concrete but are potentially more flammable. All of these present new challenges to engineers using modelling tools to understand them and design ways of coping with them.

Five Cutting-Edge Technology to Fireproof Your Building

Increasing urbanisation due to a rapidly growing population has led to a pressing need to ramp up safety measures with no margin of error to avoid any disastrous event. The recent rise in fire fatalities in Delhi highlights the need for a renewed focus on fire safety in India’s urban centres.

India’s urban areas are increasingly vulnerable to the devastating consequences of fire. The urgency is further emphasised by the alarming national trend of escalating fire incidents, documented by the National Crime Records Bureau of India.

The root cause analysis revealed a lack of early detection mechanisms and inadequate fire safety protocols. The absence of a comprehensive fire detection system and a centralised alarm system also contributed to the tragic outcome. Such incidents highlight the critical need for advanced fire safety solutions that can offer real-time monitoring and instant alerts.



Here are five key technologies that can help achieve this:

Evolving Detection technology: Early detection in fire safety is paramount for protecting lives, property, and assets. It plays a key role in minimising the potential damage and improving the safety of people and property by enabling a rapid and coordinated response, ultimately helping to reduce the impact of a fire. Fire safety detection technologies such as advanced sensors, real-time IoT monitoring, predictive analytics, video image detection, and automated response have evolved significantly in recent years to enable faster and smarter detection and emergency response. Automated smart systems today can help prevent small incidents from escalating through targeted intervention while managing

cascading risks – all still backed by vigilant human oversight.

Wireless technology: Wireless innovations help reduce infrastructure dependencies while expanding real-time visibility. Wireless sensors distributed across building infrastructure can be configured for zoned or mass notification alerts to relay early smoke, heat, or fire triggers in real-time, helping enable rapid response activation and evacuations. Unified wireless mesh networks between multiple system nodes – cameras, sprinklers, exit signs, and occupancy counters help create an interoperable ecosystem improving coordination.

Furthermore, these systems also help avoid construction constraints associated with hardwired fixtures and allow flexibility to install early warning capabilities faster.

Integrated Total Life and Property Safety: An integrated system combines various components and technologies to enhance the overall effectiveness of fire prevention, detection, and response. Unifying fire safety under a common platform streamlines alerts, containment, and occupant egress by using system interlinkages.

The integrated ecosystem seamlessly provides a comprehensive and coordinated approach to managing fire-related risks and enhances their ability to protect lives, property, and assets in the event of a fire. From early detection to sending alerts and rapid evacuation, integrated systems help provide a holistic and synergistic approach.

Remote Monitoring and Management: Utilising advanced sensors and IoT connectivity, modern systems provide real-time monitoring of environmental conditions, smoke, and heat, enabling immediate response. IoT-based systems help address skilled staffing shortages by simplifying installation, commissioning, and maintenance.

Continuous monitoring of equipment and environment anticipates potential issues and facilitates preventive action. Real-time data on system testing, inspections, and device inventory offers valuable insights for optimization and post-incident analysis. Web and mobile applications also allow stakeholders to access system status and initiate responses from anywhere, anytime.

Cloud-based System for predictive maintenance and ease of use: Cloud-based systems for fire safety are faster to deploy and offer several advantages in terms of reducing infrastructure

requirements and facilitating ease of usage. Cloud service providers often offer robust infrastructure with built-in redundancy and high availability. It helps eliminate the need for heavy investments in physical infrastructure, such as servers and storage devices.

They have a user-friendly interface, remote access, and monitoring enabling users to stay connected and collaborate among the stakeholders involved in fire safety, such as emergency responders, facility managers, and security personnel. Additionally, they leverage advanced data analytics and machine learning capabilities to analyse large datasets collected from fire safety devices and sensors which helps reduce downtime by addressing potential issues before they lead to equipment failure.

Credits: Honeywell

Ways to prevent primary causes of industrial fires

The threat of fire looms large in industrial operations. The combination of heavy machinery, flammable materials, and high temperatures can turn a tiny spark into a catastrophic inferno within moments.

However, with proactive measures and a robust prevention strategy, the risk of industrial fires can be significantly mitigated. They will delve into the common causes of industrial fires and explore prevention methods to help users safeguard the workplace.

Electrical fires are a prevalent hazard in industrial settings, often triggered by faulty wiring, overloaded circuits, or damaged electrical equipment. Regular maintenance and inspections are paramount to prevent electrical fires. Implementing a routine schedule for checking wiring, outlets, and electrical panels can identify potential hazards before they escalate. Additionally, ensure that electrical installations comply with relevant safety standards and regulations.

Investing in ground fault circuit interrupters (GFCIs) and arc-fault circuit interrupters (AFCIs) can protect against electrical faults by detecting and interrupting them. Training employees on proper electrical safety practices, such as avoiding overloading outlets and using equipment according to manufacturer guidelines, is essential to minimise the risk of electrical fires.

Flammable liquids, such as gasoline, solvents, and paints, pose a significant fire risk in industrial environments. Proper storage and handling are critical to preventing fires associated with these substances. Store flammable liquids in designated areas with



appropriate ventilation and fire suppression systems. Ensure containers are tightly sealed and labelled correctly to prevent leaks and spills.

Implement strict protocols for using and disposing of flammable liquids, including using spark-proof tools and equipment in areas where these substances are present. Conduct routine training sessions to educate employees on the safe handling and storage of flammable materials, emphasising the significance of vigilance and adherence to established procedures.

Compressed gases, such as propane and acetylene, are commonly used in industrial processes but can pose a severe fire hazard if mishandled. To prevent fires caused by compressed gases, proper storage, handling, and maintenance procedures must be followed. Store compressed gas cylinders in well-ventilated areas away from heat sources and ignition points.


Inspect cylinders regularly for signs of damage or leaks and replace faulty equipment immediately. Implement strict controls on the use of compressed gases, including training employees on proper handling techniques and emergency response procedures in case of a leak or release.

Hot work, which includes welding, cutting, and brazing, presents a massive fire risk due to the intense heat generated during these processes. Before commencing hot work activities, conduct a thorough risk assessment to find potential hazards and implement appropriate controls. Clear the work area of flammable materials and establish a fire watch to monitor for sparks or hot particles.

Provide employees with personal protective equipment (PPE), such as flame-resistant clothing and face shields, to reduce the risk of injury in case of a fire or explosion. Implement a permit-to-work system to ensure that hot work activities are authorised and supervised by trained personnel.


Effective housekeeping practices play a crucial role in preventing industrial fires by minimising the accumulation of combustible materials and reducing ignition sources. Maintain clean and orderly workspaces, removing clutter and debris that could fuel a fire. Apply a regular cleaning schedule to remove dust, dirt, and other flammable residues from equipment and surfaces.

Store materials and equipment properly, keeping flammable substances segregated from ignition sources and ensuring that emergency exits and firefighting equipment are readily accessible. Encourage a culture of safety awareness among employees, empowering them to report potential hazards and participate in fire prevention initiatives. ■



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Hikvision India Introduces the next-generation Turbo HD 8.0, opening a new chapter in audio-visual fusion

Hikvision India has announced the latest generation of its Turbo HD range of analog security products. Turbo HD 8.0 delivers a more comprehensive and interactive security experience for users, enabling them to augment their visual security environment.

The revolutionary Turbo HD 8.0 includes four major innovations that bring users real-time communication, 180-degree video protection, and raise night vision to new heights.



The enhancements extend the range of Turbo HD products with two-way audio capabilities, compact dual-lens cameras with stitching technology, and Smart Hybrid Light capability across the entire range of Turbo HD cameras. It also introduces a new advanced pro-series DVR with AcuSense.

TVI two-way audio

The new Turbo HD 8.0 cameras feature two-way audio capability, making them suitable for use in various real-time communication scenarios, such as at fences and door-to-door intercoms. Conversations are crystal clear thanks to intelligent noise reduction which isolates human voices by filtering ambient sounds. High-powered 2W speakers ensure that the sound quality is strong and immersive. People can comfortably talk over long distances, meanwhile, thanks to the generous 3m intercom pickup and the greater 5m pickup used at the remote end.

Smart Hybrid Light in all

Smart Hybrid Light technology enhances the night vision experience and has now been extended across the entire range of cameras in the Turbo HD 8.0 range. The Smart Hybrid Light cameras have a wide F1.6 aperture and can capture colour images at critical events when a person or a vehicle appears. Even better night images can be captured using

advanced Smart Hybrid Light cameras with ColorVu technology, a larger F1.0 aperture, later supplemental light turn-on time, Super Confocal Lens, and a BSI high sensitivity sensor.

Upgraded intelligence with advanced pro-series DVR

The new Turbo HD 8.0 range includes an advanced pro-series DVR with AcuSense. This expands the intelligent channel support and improves performance for perimeter protection. It also integrates smart technologies including facial recognition, Motion Detection 2.0, and perimeter protection in a single DVR for varied security requirements. The new DVR will be updated soon to include the AcuSearch function, enabling precise target search with a single click for improved video searching efficiency.

The revolutionary HD Turbo 8.0 products are the latest example of Hikvision's commitment to constant technological innovation and development. In 2018, ColorVu and AcuSense technologies were introduced to deliver 24/7 color imaging and smart recognition. The following year, PIR Live Guard alarms were added in Turbo HD X. Hikvision will continue to innovate technology to bring new values and experiences to users in the future.

Low-light All Color Series cameras released

According to Matrix Comsec the company's new Matrix All Color Cameras mark a significant leap forward in video surveillance technology. Engineered to provide vivid coloured images in low-light conditions, these IP cameras aim to redefine the standard for sharper, clearer visuals, especially during nighttime operations.

In the landscape of remote site monitoring, video



YOUR SECURITY BEGINS WITH YOUR PERIMETER



DETER, DETECT & DELAY INTRUDERS.
BEING FOREWARNED IS BEING FOREARMED!

ECONOMICAL. RELIABLE. EFFECTIVE.



- They provide a higher level of detection capability to detect an intrusion attempt and set off the alarm which is then transmitted to the security personnel, police or the CMS.
- They are installed easily on existing walls or fences, or as a free standing secure energy perimeter fence, forming your first line of defence.
- The wires of a free standing secure energy fence serve as a barrier, alleviating the need to erect another conventional fence or wall, reducing cost.
- Safe, complies with International IEC Standard 60335-2-76
- Fences can be remote controlled and integrated with other systems such as, Perimeter Lighting, CCTV, and Alarm Systems.
- They reduce cost of security personnel.
- They last for years and have low maintenance cost.

APPLICATIONS:
BUNGALOWS, FARM HOUSES, CAMPUSES, PRISONS,
GOVERNMENT & MILITARY SITES, CRITICAL INFRASTRUCTURE FACILITIES...



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surveillance plays a pivotal role in ensuring the safety and security of both human and material assets. It also serves as a crucial tool for enforcing compliance and boosting overall productivity.

The launch of the Matrix All Color Series IP Cameras in turret enclosures reflects a strategic move by Matrix to broaden its product portfolio while upholding the brand's commitment to durability and performance.

Designed for versatility these cameras offer to excel in a spectrum of surveillance applications, including corporate offices, hospitals, hotels, and residential areas. The incorporation of Sony Starvis Series sensors and advanced lenses equips these cameras to deliver outstanding low-light performance, capturing colour images even in low-light/ no-light environments.

This capability not only enhances identification but also reduces false alarms, offering valuable forensic evidence. The cameras serve as visible deterrents, contributing significantly to heightened security measures. From retail and healthcare to education and critical infrastructure, the All Color Series exhibits unmatched versatility.

Promising revolutionary low-light colour imaging technology, strict adherence to cyber security compliance, a robust design featuring turret enclosures, and a simplified installation process these cameras are designed to stand out. Certification to meet national and international standards, including IP67, CE, FCC, BIS, ROHS, NDAA, and STQC's cyber secure certification, further underscores Matrix's commitment to quality and innovation in this latest addition to its security solutions lineup.

New Axis dome cameras with mic enabling audio analytics

Axis Communications has released new additions to Axis P32 Series and Axis M30 Series with two new dome cameras that feature a built-in microphone and are out-of-the-box ready for Axis Audio Analytics.

The Axis M3086-V Mic and the Axis P3267-LVE Mic includes the same features as the standard versions and includes a built-in microphone, which simplifies the use of audio and audio analytics.

Both cameras are out-of-the-box ready for Axis Audio Analytics, which uses adaptive audio detection to generate alarms on sudden increases in sound volume. With AI-based classifiers, it can detect

screaming and shouting. You can also get additional confirmation by combining Axis Audio Analytics with video analytics. This smart application only transmits metadata, ensuring privacy is safeguarded.

A core feature of Axis OS, Axis Audio Analytics comes pre installed at no extra cost. Furthermore, Audio Privacy Control ensures audio streaming is disabled by default and it's up to the user to turn it on.

Key audio features include the following:



- Built-in microphone
- Detection of sudden increases in sound volume
- Classification of screams and shouts
- Privacy by default
- Combines with video analytics for greater accuracy

Dallmeier releases new PTZ camera series

Dallmeier electronic has released its new PTZ camera series. The high-speed PTZ network cameras are designed to set new standards in terms of performance, intelligence and price-performance ratio. They offer high image quality, a variety of advantageous technical features and AI-based analysis functions for a wide range of applications.

The new PTZ cameras of the DDZ5530DN, DDZ5230DN and DDZ5000DN-IR series offer a comprehensive feature set, and equipped with a high-performance PTZ mechanism, they deliver high-resolution video streams at frame rates up to 60 fps with effective contrast, clarity and maximum detail resolution. Available in indoor and outdoor models, the cameras feature 30x to 40x zoom and, depending on the model, adaptive IR lighting. Resolution ranges from two to eight megapixels.

One of the stand out features of these new PTZ cameras are the Edge Analytics AI apps, available in specific versions. These enable intelligent classification of moving and static objects in the PTZ home position, thus assisting the operator with targeted pre-selection of events and event-triggered recording. Available apps include line crossing, intrusion, loitering and people/vehicle counting. This enables more accurate monitoring and event detection, increasing operational efficiency. MQTT can be used to collect standardised data from the cameras and control various IoT systems and other devices based on defined Edge Analytics events.

In addition to up to 20 per cent lower costs compared to the previous generation, integrators, installers and end customers benefit from the advantages of the Dallmeier Mountera mounting system. Mountera consists of a range of mounting options that enable easy and intuitive installation of Dallmeier cameras from all product families in all possible application



scenarios. This minimises training requirements and even semi-skilled personnel can be tasked with on-site installation.

The different specifications and housing formats make the Dallmeier PTZ cameras ideal for a wide range of applications, from casino gaming floors to classic industrial applications and especially in the field of critical infrastructure. Not only for the latter is it important that the PTZ systems, like the other camera families from Dallmeier, meet the requirements of the GDPR as well as the criteria of the American NDAA (National Defence Authorization Act) thanks to product development and vertical integration “Made in Germany”.

Morse Watchmans launches new EKG kit

The Emergency Key Grab Kit, or EKG Kit, from Morse Watchmans has been designed to facilitate a swift emergency response in the event of a facility lockdown.

“In a crisis scenario, time is of the essence as every second first responders waste locked out of a



building is a second lost that could have been spent saving lives,” said Tim Purpura, VP of Global Sales and Marketing, Morse Watchmans. “That’s why we created the EKG Kit, to provide facilities of all types with a comprehensive solution for improved crisis preparedness and emergency management.”

At the heart of the EKG Kit is a one-module or greater Keywatcher Touch System. The Keywatcher Touch stores facility keys in an electronic cabinet, only to be accessed by those with the proper permissions (i.e., facility managers and first responders). Using a unique PIN code or other provided credential, emergency personnel can swiftly retrieve the required keys, such as those for locked rooms or secured areas, enabling them to enter and address the situation promptly.

In addition to the Keywatcher Touch, the EKG Kit also includes additional materials and support required to provide first responders with fast, protected access to facility keys in the event of an active shooter, natural disaster, or other emergency. With every complete EKG deployment, facilities benefit from both a controlled, known location for master keys as well as the implementation of a complete key control policy developed with the help of Morse Watchmans

experts. This significantly improves response times and effectiveness during critical incidents and gives stakeholders peace of mind, knowing that the space they are occupying is equipped with robust security measures to handle emergencies efficiently.

VIVOTEK Launches New AI powered Network Camera

VIVOTEK has announced the launch of the new MS9321-EVH-V2 Network Camera. “Featuring 4 x 5MP CMOS Sensors at 30fps at all resolutions with AI-powered deep search across the entire field of view, VIVOTEK’s new MS9321-EVH-V2 multiple sensor network camera can monitor full 180 degree



horizontal views and deliver the highest quality video and A.I. coverage, making it an ideal intelligent outdoor surveillance solution,” explained Albert Lin, VIVOTEK USA general manager. “The MS9321-EHV-V2 has a Video Alignment feature that allows you to adjust the positioning and image quality of each sensor, enabling users to view a seamless picture, with no repetition.”

Lin continued, “Cloud-managed capability is another key feature of MS9321-EHV-V2, the same as all VIVOTEK A.I. empowered camera solutions. Through VORTEX Connect in VIVOTEK ND-series NVR, our customers can now easily and centrally view, access, manage, and share MS9321-EHV-V2 180 degree video through VORTEX cloud.”

Featuring WDR Pro (120dB), the MS9321-EHV-V2 captures both the dark and bright areas of an image and combines them to create a highly realistic representation of the original scene.

Additional MS9321-EHV-V2 features and specifications include:

- H.265 Compression Technology with Smart Stream III

- SNV and Smart IR
- Built-in IR illuminators up to 30 meters
- Signed firmware and Secure Boot
- NDAA compliant
- AI-powered Smart Motion Detection and Smart VCA
- Trend Micro IoT Security for cyber protection
- Weather-proof IP66-rated and vandal-proof IK10-rated housing

VIVOTEK also recently announced its 2024 theme Make Tomorrow Easier, Today! Core essential components to the new campaign include Make Analytics Easier, Make Cloud Easier, Make Search Easier, and Make Integration Easier.

3DX-Ray launches the first cabinet-style mail screening X-ray system with integrated AI software

3DX-Ray has announced that its established Axis-CXi system cabinet-style mail screening x-ray system is the first to fully integrate AI machine learning software functionality.

3DX-Ray, reaffirming its position as an innovator in security and screening technology, has announced that the official launch will take place



at the prestigious Security and Policing 2024 event in Farnborough, a closed government organisation gathering, showcasing the latest advancements in security solutions.

Designed to revolutionise mail screening and building entrance security, the newly integrated

AI software adds an intelligent layer to the AXIS-CXi cabinet X-ray system, providing unparalleled accuracy and efficiency in threat detection.

Key features

- **Enhanced Threat Recognition:** The AI software employs cutting-edge algorithms to identify and analyse potential threats with an unmatched level of precision and confidence.
- **Efficient Mail Screening:** The system streamlines mail screening processes, ensuring a rapid yet thorough examination of incoming mail for any suspicious items.
- **Building Entrance Security:** With real-time threat assessment, the AXIS-CXi system contributes to bolstering security at building entrances, safeguarding against unauthorised or potentially harmful items, including firearms, ammunition, sharp objects, and drones.
- **User-Friendly Interface:** The intuitive user interface ensures ease of operation, allowing security personnel to make informed decisions swiftly.

Mr. Vincent Deery, CEO of 3DX-Ray Ltd, expressed his enthusiasm for the groundbreaking integration, stating, “Our commitment to advancing security technologies has led us to this superb development. The introduction of AI software into our AXIS-CXi cabinet X-ray system reaffirms our dedication to providing state-of-the-art solutions that prioritise safety and efficiency.” He adds, “3DX-Ray’s Axis-CXi system is the first cabinet-style mail screening X-ray system to offer this functionality.”

ClareVision Smart Video Doorbell from Snap One



Snap One has announced the availability of a new flagship security product, the NDAA-certified

ClareVision Smart Video Doorbell, which gives Partners and their customers a self-contained, subscription-free solution to monitor and record activity at the front door 24 hours a day.

According to Clint Choate, Senior Director of the Security Market at Snap One, the new ClareVision Smart Video Doorbell is an ideal solution for standalone surveillance or as part of a ClareOne smart home system. It also provides an easy-to-install option for production builders that ensures all buyers are satisfied.

“Home surveillance is now a top priority for many homeowners and buyers, and with the new ClareVision Smart Video Doorbell we are giving our Partners a high-quality branded option that integrates seamlessly with other Clare solutions and requires no monthly subscriptions for storage or viewing,” Choate said. “The doorbell is designed to be powered by existing low-voltage doorbell wiring for added Partner convenience while including powerful features such as dual Wi-Fi band connectivity, full HD resolution and support for two-way voice.”

The ClareVision Smart Video Doorbell is a simple, potent surveillance and security upgrade that combines 1080p video capture, AI-based smart analytics, 2.4GHz and 5GHz Wi-Fi connectivity and two-way voice calling into a slim device that uses existing doorbell wires for power.

Users can view the live feed from the ClareOne Wireless Security and Smart Home Panel and the ClareVision App, or integrate the video doorbell with Control4 as a surveillance device. Recorded video is stored via an internal 16GB microSD card, which Partners and users can expand up to 512GB.

“We developed the Smart Video Doorbell based on direct Partner input to meet their needs and expectations,” Choate added. “The simple physical design and connectivity features make deployment as easy as possible to ensure profitable projects at any scale.”

Each Clare Smart Video Doorbell comes with white, black and satin nickel cover plates, as well as standoff wall mount brackets and angled brackets for ultimate flexibility and installation ease.

First Alert VX Series from Reside

The First Alert® Visual Experience (VX) Series provides meaningful notifications and crystal-clear

video day and night and is available in three different models: the First Alert VX1 HD Video Doorbell, the First Alert VX3 HD Outdoor Camera, and the new First Alert VX5 Indoor Camera.



The VX Series delivers premium performance, including AI-driven detection that offers relevant event notifications – for person, vehicle, animal, and package detection, depending on the model.

This is an advancement from older technology that only offered motion detection.

It also offers a scalable video offering for professional installers and provides high-quality video that offers awareness to home users, who can see what’s taking place inside and outside their home. It has crystal-clear, colour video any time of day, courtesy of wide-angle views, infrared night vision and colour night vision.

Through Resideo’s Total Connect 2.0 App, the VX series gives homeowners easy to view live and recorded video – anytime, anywhere – and the video also is integrated onto the ProSeries PROA7PLUS security panel. Professionals also can offer AlarmNet 360 subscription-based video storage plans for a variety of applications – from one device to a full security system opportunity to deepen RMR.

Janam unveils breakthrough all-in-one UHF RFID reader for supply chain operations

Janam Technologies, a pioneering provider of rugged mobile computers and contactless access solutions, announced the launch of its XR2 UHF RFID Reader—an all-in-one device designed for real-time tracking and unprecedented visibility into the location and status of items throughout the supply chain. vint Smart Home, an NRG brand, has feature that leverages the AI technology on Vivint leaves, or passes through a designated detection zone.

Built to thrive in demanding warehouse, manufacturing and logistics operations, XR2 combines the most advanced RAIN RFID technology with a sleek, intuitive and ergonomic design that sets a new standard for power and performance. Superior sensitivity, long-range RFID reading and lightning-

fast processing speeds bring enormous value to inventory management, asset tracking and other line-of-business applications.

Key Facts:

- XR2 is a state-of-the-art, handheld RFID reader that optimises workflow in the most challenging environments. It helps businesses tackle the complexities of modern supply chains with efficiency and precision and sets a new benchmark for what’s possible in asset tracking and inventory management.
- XR2 is priced to deliver unparalleled value to enterprise customers who don’t want to spend more than is necessary to acquire a superior, uncompromising, all-in-one UHF RFID reader.
- Powered by the industry-pioneering Impinj E710 reader chip, XR2 guarantees exceptional signal clarity and incorporates self-jammer cancellation to ensure robust tag detection in areas with a high concentration of tags. Capable of scanning more than 1,000 EPC Class 1 Gen 2 tags per second and from up to 60 feet away, XR2 delivers new levels of efficiency in asset management and inventory control, significantly reducing the time and labour required for businesses of all types and sizes.
- Equipped with an advanced Honeywell 1D/2D imager for high-throughput capture of even the most difficult-to-read barcodes, XR2 ensures every barcode is acquired and decoded swiftly and accurately.



gain access to the best-performing cellular networks worldwide, including AT&T, Verizon, T-Mobile and more than 600 other networks.

- XR2’s built-in GPS functionality not only provides accurate location data but also enhances asset tracking and management. By merging precise tag location information with RFID data, XR2 enables businesses to gain business-critical insights into asset logistics, streamline operations and significantly boost efficiencies across the modern supply chain.

Amazon Blink Mini 2 Camera

Blink, an Amazon company, has unveiled the upgraded Blink Mini 2, boasting enhanced features in a compact, weather-resistant design suitable for both indoor and outdoor use. The camera, now compatible with the new Blink Weather Resistant Power Adapter, offers improved image quality, wider field of view, and a built-in LED spotlight for colorful night vision.

Fueled by Blink’s custom-built chip, the Mini 2 employs on-device computer vision for intelligent notifications, including person detection, accessible with a Blink Subscription Plan. The chip, central to the device’s functionality, ensures premium performance at an affordable price point.



Retaining its compact size, the Mini 2 integrates an LED spotlight for colorful night vision, widened field of view, and superior image quality. Its weather-resistant design, with the optional adapter, expands its versatility for outdoor usage.

Privacy remains a priority, empowering users to tailor privacy settings and activity zones via the Blink app. Two-way talk functionality allows communication with loved ones and pets, with all data processing occurring locally on the device. Integration with Alexa enables seamless control and monitoring through Echo devices, further enhancing user experience and home security.

The upgraded Regula 4205D: Forensic-level document verification for border security

The International Organization for Migration notes a steady rise in migrant flow, reaching 281 million in 2022 from 153 million in 1995. Simultaneously, counterfeit document quality

advances, necessitating more sophisticated border control tools. Regula addresses this challenge with its upgraded Regula 4205D, enhancing document verification processes.

Key Capabilities of the Regula 4205D:

- **High-Precision Magnification:** State-of-the-art camera offers clear 30x magnification, revealing details like microprinting with UV and IR fluorescent inks.
- **Comprehensive Inspection:** 13 light sources enable multi-level inspection, covering security features from watermarks to UV and IR fluorescent inks.
- **Enhanced Operational Efficiency:** Automated data retrieval from MRZs, RFID chips, and barcodes, coupled with cross-check verification, expedites identification processes.
- **Rapid, In-Depth Checks:** Powered by an 11th-generation Intel N5105 processor and 8 GB of RAM for thorough manual checks without compromising speed.
- **Ease of Use:** Intuitive 11.6-inch touchscreen interface simplifies inspection, with HDMI connectivity for officer training sessions. Compact size and plug-in working mode facilitate fast installation.
- **Integration with Regula IRS:** Optional feature provides access to a global database of document images and security features, aiding precise verification.

Regula emphasizes the importance of border control authorities in combating identity document fraud, leading to the upgrade of the Regula 4205D. Alex Lewanowicz, Director of Hardware Engineering, highlights its contribution to document processing speed, accuracy, and fraud prevention. The commitment to in-house production, LED technology, and proprietary software ensures reliability and sustained performance, making it indispensable for border control agencies globally. ■





Source: Adobe Stock Image by Jer

Cloud-Based Visitor Management SaaS Solutions Deliver Valuable Benefits Faster

BY NITIN PARIHAR

Nitin Parihar is Director of Product Management with HID. He has over 12 years of experience in the identity and access management spaces.



Implementing requirements and solutions through SaaS providers simplifies deployment, reduces acquisition costs and improves compliance.

With the evolution of enterprise cloud computing, organizations can now use business applications to manage key processes without investing heavily in data centers, bandwidth or servers.

Organizations are quickly gaining more confidence in the security of their cloud services providers and have found that cloud best practices match or are better than those of on-premises solutions.

Integrators can help their clients move visitor management to the cloud by implementing it through a Software-as-a-Service (SaaS) provider that takes advantage of these best practices.

Benefits of SaaS Visitor Management

This also streamlines deployment of new capabilities, such as mitigating the growing risk of workplace violence through a multi-layered security solution with duress-alerting capabilities.

Visitor management SaaS solutions give organizations the ability to manage visitor traffic without the need for costly and complex in-house systems. They keep organizations safe and compliant at a much lower cost and without the risk of critical information being visible to external threats.

Managing visitor traffic in the cloud also brings many operational benefits. As an example, users can back up information and reports on a facility's visitor traffic and make it easily available from anywhere to meet compliance reporting requirements — one of the most important roles of a visitor-management system.

The information is safe and always available even in the case of a disaster or technical malfunctions. SaaS visitor-management solution users can also scale their solutions as their needs grow and evolve. By selecting a long-term solution provider, they can be confident that their implementation can adapt to these evolving needs and integrate with current screening services and access and IT systems.

Examples include Visual Compliance, CCure, Lenel, Azure AD, OKTA, AD Outlook, Google Workspace and more. Integrating with existing systems through a SaaS provider solution ensures that, when information about visitors is already available, they don't need to fill out forms again and the visitor's calendar option is always supported.

Another benefit of the SaaS approach is that it reduces the cost of solution acquisition while also eliminating the need for extensive investments and the risk of downtime or infrastructure obsolescence.

Instead, the solution can be updated and configured at any time, supporting the company's needs without additional IT department resources. Continuous software updating also avoids disruptions or downtime.

Finally, today's SaaS visitor management solutions can also provide the foundation for deploying multi-layered workplace safety and security initiatives.

Adding Workplace Safety Protection

An increasingly important benefit of visitor-management solutions is protecting employees against workplace violence. The ability of a visitor-management solution to integrate with and support other services, platforms and compliance requirements makes it the ideal convergence point for workplace safety technologies.

SaaS visitor management solutions take a step further by providing a scalable, cost-effective and easy-to-update approach to improving workplace safety by combining identity, access and visitor management software with ID badges for staff and visitors, and duress-alerting capabilities for these ID badges.

Workplace violence prevention has become an increasingly urgent concern. Some U.S. states have legislated that employers develop a violence prevention program, especially in healthcare.

California Code of Regulations, Title 8, Section 3342, for example, requires healthcare employers to implement violence prevention measures ranging from incident logs and special record keeping to creating a workplace violence prevention plan.

A well-implemented visitor management solution offers the foundation for this type of multilayered security solution. It enables administrators to see and relay information about people and events, from active shooter incidents and subsequent lockdown measures to emergency mustering and ensuring everyone is accounted for during this process.

Because it supports integration with an organization's HR IT and access control systems, a visitor-management solution also provides the foundation for implementing duress alerting via employee ID badges.

To make duress alerting possible, badge holders are issued to employees that feature discreet buttons for secretly, silently calling for help. This reduces the chance that an attacker might escalate the violence after learning help is on the way.

The buttons are located either on the backside of the badge holder or the sides of a key fob. An LED on the back begins blinking and an alert is sent to the cloud through connected gateways that are generally installed across the campus or building. The badge holder must be in the range of the gateway to trigger one of many possible policy-based distress-response events.

The third layer of this workplace-safety solution extends situational awareness across more people and the entire building or campus. In the healthcare setting, this takes the form of patient-management devices that are worn around the wrist like a watch and used alongside the duress-alerting badge holders worn by hospital staff.

The result is a complete Real Time Location Service (RTLS) solution for the healthcare environment. The wristbands identify patients and support real-time location applications, streamlining patient admissions through discharge while saving time and money, cutting human error, and increasing patient satisfaction and safety.

Going Beyond the Front Desk App and Tablet

Visitor management now extends well beyond yesterday's simplistic front desk apps or tablet check-

in tools. Many of today's solutions are completely stand-alone, with no options for enhancing security or supporting compliance.

In contrast, the latest solutions promote customer satisfaction, security, compliance, and safety by managing data, integrating with other internal systems, and providing alerts and reports. They also offer watchlist cross-referencing, preregistration, reporting, emergency alerts and broadcast messages, among other increasingly important functions.

Implementing requirements and capable solutions through a SaaS provider simplifies deployment while reducing acquisition costs, improving compliance, future-proofing investments, offering the scalability to support new requirements, and avoiding downtime and the risk of obsolescence.

These benefits can be maximized by engaging with a proven provider and ensuring that the solution integrates with current HR, IT and access control systems while adhering to key regulatory and other compliance requirements. ■



Image Source: UrSpace- A Visitor Management Software Company

Choosing the right fingerprint capture technology

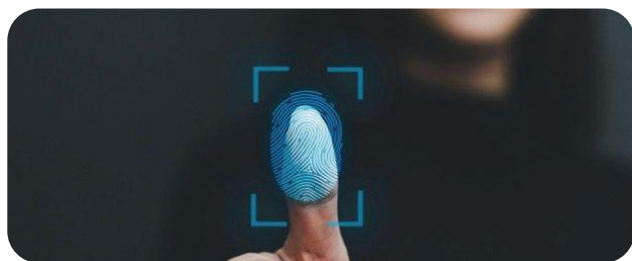
BY VITO FABBRIZIO



Managing Director, Biometrics,
Extended Access Technologies, HID
Global

Choosing the appropriate fingerprint technology for a given application is dependent on factors including the required level of security and matching accuracy, the desired capabilities and features, and the usability to achieve adoption and productivity goals.

A successful evaluation process will help ensure that this mature and proven user authentication method performs as expected.



Fingerprint Biometric Advantages

The speed, simplicity, accuracy, and cost-effectiveness of the fingerprint method have made it among the most widely used for biometric authentication across industry sectors ranging from banking and finance, retail, and healthcare, to government and law enforcement.

It performs biometric technology's "something you are" function while offering unique characteristics that make it particularly valuable for many applications.

Unique identifier

Among these characteristics is the pervasiveness and special nature of the fingerprint -- almost everyone has one, and each is a unique identifier. The fingerprint biometric has the permanency of being reasonably stable and consistent over time. It is also easy to acquire, measure, and process.

High adoption rate

Another key attribute of a fingerprint biometric is its ability to be protected against threats ranging from abuse and misuse to theft, imitation, and substitution. When it is used with recognition techniques the resulting solution performs with a combination of accuracy, speed, scalability, and ease of use.

Fingerprint biometric solutions also have the

highest adoption rate among biometric authentication solutions according to an industry report published by Payments Journal.

Three interrelated components

There are three basic components in any fingerprint biometric system: Capture (using a sensor that can capture even the most difficult finger types); Liveness Detection (using the Presentation Attack Detection – or PAD – technique); and Matching (including preventing rejection of a legitimate user).

Biometric algorithm

The sensor captures and pre-processes the fingerprint data. It must be able to successfully capture fingerprint images for a range of skin types and print conditions under diverse temperatures, humidity, light, surface oil, dust, dirt, and other environmental conditions.

A biometric algorithm then extracts minutiae data about the fingerprint ridges (endings, bifurcations, islands, etc.) and their orientation and position.

PAD technique

Implementing a presentation attack detection (PAD) technique at this stage activates the fingerprint biometric system's second key element: liveness detection. This verifies the fingerprint's authenticity and that it belongs to a living person.

The system's third element – matching – occurs after the PAD-verified fingerprint dataset has been securely stored as a record, known as a template, inside an enclave with cryptographic protection.

Check for liveness

When the fingerprint is presented for matching, it is rechecked for liveness. The corresponding template of the legitimate user is then retrieved from secure

storage and the process of matching the fingerprint with this template is executed.

This must be completed accurately and without rejecting a legitimate user.

Types of fingerprint sensing technologies

There are four prevailing categories of sensing technologies used with fingerprint readers: optical, capacitive, thin-film transistor (TFT), and multispectral imaging (MSI).

- **Optical and capacitive method:** Optical is the most mature sensor technology, and offers the benefits of a compact size, good capture and matching performance, a small enough size to fit in most desktop environments or shared workstations, and a high level of accuracy at a cost-effective price point across all use cases.

The capacitive method, on the other hand, is less prone to fake finger attempts while also offering a thin and compact size for space-limited applications, the power efficiency to support battery-operated devices, and the ability to handle both indoor and outdoor lighting conditions.

- **TFT technology:** The third technology goes a step further in capture accuracy. TFT technology can accurately recognise the smallest fingerprint features with ultra-high resolution and is used either as a larger-size matrix capacitive proximity detector (capacitive fingerprint sensor) or a larger-area matrix light detector (optical fingerprint sensor).

It is ideal for in-the-field mobile identification applications that require a cost-effective, ultra-slim, and lightweight solution with low power consumption.

- **MSI technology:** MSI technology differs from all three approaches, projecting multiple colors of light into the finger from different angles to collect both surface and subsurface biometrics data. It captures the most difficult fingerprints of diverse demographics, in a wide range of challenging environments.

HID has used this patented technology in fingerprint readers that are compliant with ISO 30107-3 PAD Level 2 for advanced anti-spoofing against fraud. The technology also improves matching and offers sophisticated endpoint security that prohibits cyber criminals from gaining unauthorised access to networks by turning fingerprint readers into secure endpoints.

Best practices for technology selection

Much is expected of the current fingerprint solutions, including delivering a low total cost of ownership. There are three top considerations: security, suitability, and usability. Each is important and the best approach is to strike a balance between all three.

Requirements for a biometric solution

These are just a few of the requirements to consider when choosing a fingerprint solution.

- In banking and finance, fingerprint biometrics is used for applications ranging from transacting at the ATM to customer onboarding (eKYC), compliance (AML/KYC), and fraud prevention.
- The retail sector adds even more, including age verification, loss prevention, point of sale (POS) security, self-service checkout, and secure time and attendance.
- Law enforcement organisations have their unique requirements, using fingerprint biometrics for background checks, criminal booking, crime investigation, inmate management, mobile identification, and more.
- For government agencies, typical applications include benefits distribution, border security, citizen ID, employ authentication (SSO/MFA), and voter registration.

Each application requires a thorough assessment of the best fingerprint technology for the job.

The right touch

Fingerprint biometric solutions empower a wide range of use cases with the simple touch of a finger.

The right solution will deliver the optimal balance of security, suitability, and usability based on an analysis of criteria including specific application requirements, the characteristics and size of the user population, and challenges posed by environmental conditions.

Accuracy, efficiency, and security

The world faces increasingly dangerous fraud, account takeover, and impersonation threats.

As industries and enterprises work to improve and evolve their identity and access strategies to combat these threats, fingerprint biometrics continue to prove their value through solutions that meet the key selection criteria while delivering the highest levels of accuracy, efficiency, and security. ■

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TOP INDIAN WOMEN INFLUENCERS IN SECURITY



Stay Tuned

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 Infosec Girls and WISECRA announce the "Top Indian Women Influencers in Security" recognition for the year 2024.

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.



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