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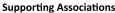
















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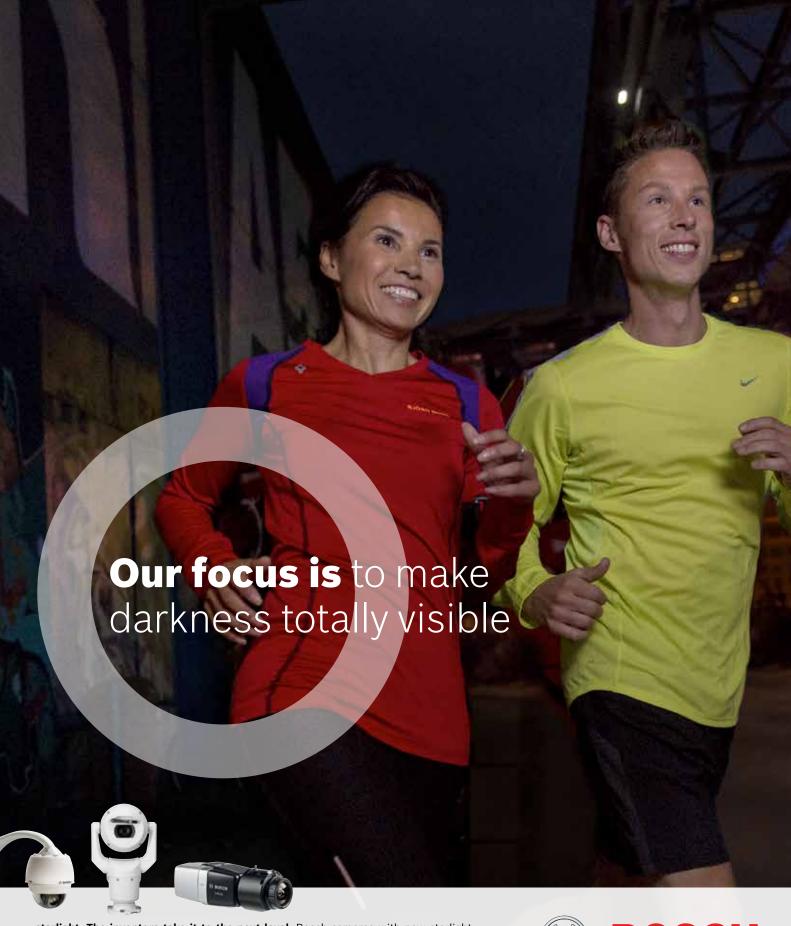








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Email: patrickgedeon@dmgeventsme.com Website: www.thebig5constructindonesia.com

ISC East 2016

Date: 16 – 17 November 2016 Venue: Javits Center North, New York

Contact: Sherida Sessa

Organiser: The International Security Conference & Exposition

Tel: (203) 840-5831

Email: ssessa@reedexpo.com Website: www.isceast.com

IFSEC India 2016

Date: 8 – 10 December 2016 Venue: Pragati Maidan, New Delhi

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Intersec 2017

Date: 22 - 24 January 2017

Venue: Dubai International Convention and Exhibition Centre,

Dubai, UAE

Contact: Andreas Rex

Organiser: Messe Frankfurt Middle East GmbH

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Milipol Asia Pacific/ GSA 2017

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Secutech 2017

Date: 12 - 14 April 2017

Venue: Taipei Nangang Exhibition Center, Taiwan

Organiser: Messe Frankfurt Contact: Ms Danielle Lin Tel: +886 2 8729 1017

Email: danielle.lin@newera.messefrankfurt.com Website: www.secutech.tw.messefrankfurt.com

Interpol World 2017

Date: 5 - 7 July 2017

Venue: Suntec Singapore Convention and Exhibition

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Dear esteemed readers,

reetings from SST! As 2016 draws to a close, I welcome you to the last edition of SST for the year.

This Nov/Dec Issue sheds light on Physical Security for commercial buildings and property. This issue thus, makes accessible, new age technological solutions to security concerns in the Physical Security Industry. In the Cover focus, Heald Mantis gives us valuable insight into what companies do to meet the needs of physical perimeter protection. Following which, application stories and thematic case studies present you with security solutions from the oil & gas industry, port & shipping industry and others.

What is also exciting about this issue is its resonance with current trends such as the Internet of Things that will impact the security industry. In a series of Security Features, this magazine gives readers more knowledge about new trends in security. Furthermore, this issue also brings to readers new information about Home Automation and its role in progressive home security in an increasingly smart technology run world.

SST has also interviewed 2 companies- Milestone and Evolis- in an indepth and thoughtful interview process to facilitate our readers' buying process in security.

In the Radio and Communication Technology section, this issue has put together a series of Military Radio products for your perusal.

I hope you enjoy reading this issue as much as I enjoyed assembling it! SST looks forward to providing you with more interesting reads in 2017!

We wish you all a very Merry Christmas and a Happy New Year!

Sharanya M

Editor



HD300 High Security **Electronically-Controlled Barrier**



High Security Bollard



DSC1200 High Strength **Surface Mounted Barricade**



High Security Barricade



DSC501 **High Security Barricade**



DSC288 High Security **Sliding Gate**



DSC207 High Security **Shallow Foundation Barricade**



DSC7000 High Security **Beam Barrier**



DSC600 High Security Shallow **Foundation Fixed Bollard**



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Axis introduces small and cost-efficient bullet style IP cameras

Suitable for both indoor and outdoor installations, new AXIS M20 Series features built-in infrared (IR) illumination for effective video surveillance even in the dark. The cameras offer complete coverage with a wide field of view and high levels of detail with resolutions up to 4 MP.

xis Communications, the market leader in network video, introduces AXIS M20 Series. The new small bullet-style cameras are lightweight, yet extremely durable. They can be installed in both hot and cold weather and features an integrated sunshield for protection against sun and rain.

"Our new camera series is an ideal choice for companies looking for ways to roll out or expand their video surveillance monitoring with low costs. The affordable cameras are cost-effective and versatile with their small footprint, and they provide high quality video surveillance indoors and outdoors, day and night," said Andres Vigren, Global Product Manager, Axis



AXIS M20 Series is a cost-efficient option for rolling out or expanding a video surveillance monitoring with high levels of detail.

Communications. "The camera series offer a low unit price and a remarkably wide field of view. This means, more areas can be covered with a smaller budget. These cameras are an ideal fit for video surveillance within retail, banking, and healthcare."

Thanks to an integrated back box, the bullet-style cameras are easy to handle and install, and they offer flexible mounting options ranging from wall, ceiling, pole and corner mounting. The cameras provide highly detailed images and complete coverage of retail stores, offices, lobbies, libraries and hallways with a wide field of view and high resolution. In case of an emergency such as fire, the water-resistant casing ensures continued video surveillance even if the sprinkler system goes off.

When installed at entrances and exits, an infrared light beam delivers high quality video surveillance even in the dark. Axis Corridor Format makes full use of the 16:9 aspect ratio allowing for efficiently monitoring of corridors and retail aisles by providing vertically oriented video streams.

AXIS M20 Series features two camera models. AXIS M2025-LE offers up to HDTV 1080p resolution and a horizontal field of view of up to 115°. AXIS M2026-LE offers up to Quad HD 1440p (WQHD) resolution and a horizontal field of view of up to 130°. Both models offer Wide Dynamic Range for scenes with complex lightning and Axis' Zipstream Technology for reduced storage requirements.

With Power over Ethernet (PoE) technology, only a single network cable is needed to provide power and data both, reducing installation time and costs. AXIS M20 Series can withstand rough weather and is protected against dust, sand, salt spray and ice formations thanks to its IP66-, IK08- and NEMA 4X ratings.

AXIS M20 Series is supported by the industry's largest base of video management software through the Axis Application Development Partner (ADP) Program and AXIS Camera Station. Third-party video analytics applications can be installed on the cameras via AXIS Camera Application Platform and ONVIF support allows for easy integration into existing video surveillance systems.

AXIS M2025-LE and AXIS M2026-LE are planned to be available in Q4 2016.

For more information, please visit: www.axis.com. == \tau





overcomes

distance limitation of surveillance systems over coax

DTV cameras, based on ccHDTV technology, provide high-resolution digital videos and work on coaxial cables. They can be placed more than 1000m (RG-6 cable) away from the DVR. DTV cameras are ideal for wide-area surveillance systems with high-quality demands.

Features of DTV Products

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- · COFDM: advanced COFDM technology to deliver digital video.
- · Long distance: no amplification required over 1km.
- · Flexible installation: upgrade without cable change. Flexible topologies.
- · Easy integration: easy integration to network (IP) and power (POC) system.

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Delta Scientific Promotes Keith Bobrosky to Vice President – Sales

9 Year Veteran of Delta Scientific - Recently Sales Manager/Project Expeditor

almdale, Calif- Delta Scientific, the leading manufacturer of counterterrorist vehicle control systems used in the United States and internationally, today announced that Keith Bobrosky, a nine-year employee of the company has been named the company's vice president sales. Bobrosky has most recently been national sales manager and project expeditor, supervising the sales team and following orders from sale to delivery, assuring that customers receive protection in the fastest time possible. As such, he has played a major role in sales, project management, application engineering and corporate strategic planning. Bobrosky has also been the account manager for large customers such as CarMax, the FBI and the U.S. State Department's Overseas Building Operation (OBO). He will now be in charge of sales worldwide, reporting to Greg Hamm, vice president of sales & marketing, who will now be able to emphasize his marketing role.



"We have a very strong team in place and continue to enjoy rapid growth," emphasizes Bobrosky. "I look forward to having a more hands-on role with our talented sales representatives and ensuring that their customers

continue to receive the security and service that they have come to expect from Delta Scientific."

At present, Bobrosky reports, Delta Scientific is delivering record numbers of vehicle access systems to customers around the globe. More than 17,000 Delta systems are now deployed worldwide to protect U.S. and other nation's embassies, nuclear plants, banks, stadiums, large major airports, car rental lots, logistics centers, palaces, private residences and more.

Bobrosky has a BA degree in Marketing from California State University-Northridge.

For more information, please visit: www.deltascientific.com. == \tau

Dallmeier amongst "Bavaria's Best 50"

Dallmeier amongst top-performing mid-sized companies: The Regensburg-based video security expert Dallmeier has once again been awarded the "Bayerns Best 50" ("Bayaria's Best 50") accolade for its success.

ver the years, the company Dallmeier has been keeping an eye on both its own success as well as the economic prosperity of its home region.

"We feel strongly linked to the economic area of Eastern Bavaria, not least because of our long-standing cooperation with a network of local suppliers. Our strong partnerships enable us to source most of our supplies and production goods from across the region, contributing to the regional as well as state economy", says Dieter Dallmeier.

continue on page 13

The Bavarian government is well-aware of how important mid tier businesses are for the economy and thus the general living standard across the state. In order to publicly honour the economic contributions of ownermanaged companies, the government created the "BAYERNS BEST 50" competition. Every year, the 50 most prosperous mid-sized firms in Bavaria are presented with an award for their achievements. The jury specifically looks at the areas of sales growth and workforce expansion.

Having previously received the accolade in 2004 and 2005, Dallmeier has also been presented with the 2016 award.

"The Dallmeier group of companies is looking forward to continue expanding its position

forward to continue expanding its position and contributing to the general economic growth", explains Dieter Dallmeier.



Dieter Dallmeier (middle) with Ilse Aigner and Dr. Thomas Edenhofer, © Studio SX HEUSER

For more information, please visit: www.dallmeier.com. *≡≡∓*





Toshiba Announces New 5MP IP Dome Cameras Offering Versatile Professional Features

rvine, CA- Toshiba Surveillance & IP Video Products Group, a business unit of Toshiba Information Systems, Inc., is delivering advanced networking and viewing capabilities to businesses with a new line of five-megapixel IP dome cameras. Available as a vandal-resistant outdoor model (IK-WR51A) or in an indoor version (IK-WD51A), the new cameras provide users with expanded options when building or upgrading an IP premise security system.

Both the IK-WR51A and IK-WD51A enhance security, safety and operational strategies with superior features that include: full frame HD video at 30 frames-persecond (2560x1920); Adaptive IR illuminators that automatically adjust LED intensity when objects are near-by to avoid overexposure; and Hallway View that lets the user rotate their camera's perspective 90° to accurately capture narrow vertical areas such as tunnels, retail

aisles or warehouse corridors. Smart Codec H.265 compression assists in reducing video storage and bandwidth costs without compromising critical image quality, while 4-user multi-streaming optimizes the balance of video quality, storage, and networking requirements.

Thanks to their high resolution, a single IK-WR51A or IK-WD51A will ensure excellent situational awareness of very large areas. Also, the cameras' wide viewing angles and 2.25x optical zoom capability let security professionals detailed scenes for evidentiary purposes, supporting more efficient investigations. In addition, the 30m range IR illuminators, Day/Night Imaging feature, and True Wide Dynamic Range help in the capture of must-see details in high-contrast or dark lighting environments, so that faces and license plates critical for asset protection are correctly identified on video.



Engineered to meet demanding IK10 and IP66 certifications, the IK-WR51A camera finds its best application in outdoor public spaces, parking lots, alleyways and other areas prone to severe or varying weather conditions as well as tampering or physical attack. The IK-WR51A camera offers a wide range of capabilities that provide a safer and more efficient indoor environment in such places as schools, casinos, retail outlets, airports and businesses.

Both new cameras are ONVIF Profile-G compliant.

For more information, please visit: www.toshibasecurity.com. =

exacqVision 8.0 Introduces Suspect Tracking

exacqVision 8.0 also includes new archive bookmarks, IP camera integrations and more.

The the release of exacqVision 8.0 video management system (VMS) software, Tyco Security Products introduces suspect tracking, a new way to follow a person or object of interest through the entire scene. exacqVision version 8.0 video management system (VMS) software also includes new archiving for bookmarked video, inactivity timeout, and camera inspection in Enterprise System Manager (ESM), a health monitoring program for use with exacqVision Enterprise network video recorders (NVRs).

The suspect-tracking feature allows users to track suspects through multiple camera views by drawing a transparent box in a specific area and linking that to other adjacent cameras with CameraLinks. Through exacqVision search tools, users can also create a suspect-tracking search. In addition to suspect tracking, operators can now access exacqReplay in a single click directly from live view with CameraLinks shortcuts for an instant replay of video and audio. Bookmarked video can be archived separately from other footage

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to create a second copy of important video. In retail applications, a corporate security officer can bookmark video of an incident at a specific store and then archive it automatically to the corporate network share overnight during off peak hours. Afterwards, exacqVision users can directly search bookmarks on the archive without affecting the store's bandwidth.

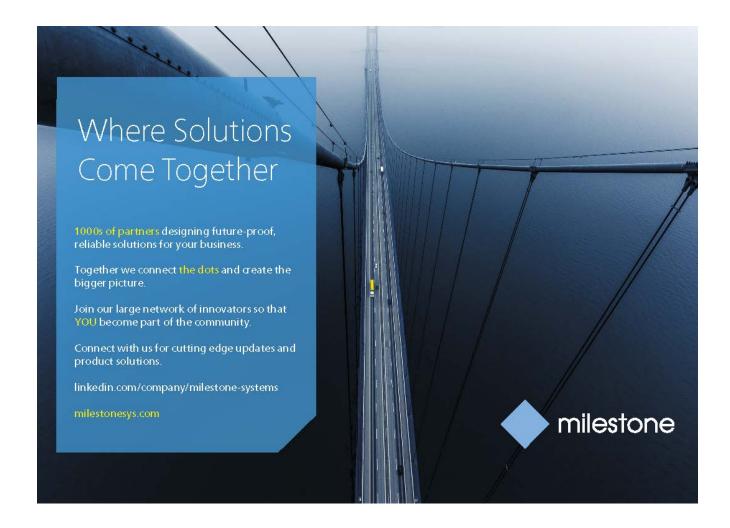
To further conserve bandwidth, exacqVision will now blank video panels when the client has been inactive for a designated amount of time. exacqVision 8.0 also allows users to configure the color and background of serial data displayed in live view to easily read associated data such as license plates and receipt transactions.

Enterprise System Manager (ESM) offers camera inspection workflow. With the web service deployed, administrators can visually compare live camera views to reference images and identify and denote cameras needing adjustment. Additionally, ESM users can generate camera assessment reports to be used by technicians on site to simplify camera inspection services.

exacqVision VMS now supports more than 3,000 IP camera models including cameras from Illustra, Axis Communications, Arecont Vision, Panasonic and other leading IP camera manufacturers. exacqVision 8.0 adds support for the new Illustra video intelligence analytics on the Illustra Pro mini-dome IP cameras to automatically analyze captured video and alert users of specific motion detected activities through event linking.

The exacqVision VMS is accessed with the freely distributed exacqVision client software (Windows/Linux/Mac), the exacqVision free web browser client available for all leading web browsers (Google Chrome, Firefox, Internet Explorer, Safari and Opera), as well as the free Exacq mobile app for iOS, Android and Windows Phone 8 devices. The VMS software is included with pre-configured exacqVision NVR servers or it can be installed on third-party Windows or Linux-based systems.

Formoreinformation, please visit: www.exacq.com. == \tau





Hytera Awarded Multi Million Dollar Contracts in Dominican Republic

ytera, a world leading solution provider of Professional Mobile Radio communications, was awarded two projects by the Ministry of the Presidency of Dominican Republic. In order to establish a nationwide emergency response network for National Emergency Care System and Security 9-1-1 (Sistema Nacional de Atención a Emergencias y Seguridad), Dominican Republic government selected TETRA (Terrestrial Trunked Radio) technology for mission critical communications, and launched two public tenders at the end of 2015; one is to cover two cities, Haina and San Cristobal, adjacent to the capital city Santo Domingo, with 5 sites and 528 terminals, while the other is to cover Santiago, the second largest city of the country, with 30 sites and 2,155 terminals.

Hytera also delivered the existing TETRA network in the Santo Domingo area as a result of a contract awarded by Dominican Republic's Ministry of the Presidency in 2013. The project includes several components: the 911 system, a camera surveillance system and the communications infrastructure with its respective terminals which was awarded to Hytera. "The system in Santo Domingo offers reliable communication services to the public safety forces, and it is a very good testimony of Hytera's solutions and supports," said Fernando Camelo, regional director of Hytera international business.

"Dominican Republic government officials have spent a lot effort to choose the right technologies for its public safety forces. Obviously, TETRA has been widely adopted and proved. We are proud to be part of the initiative of building a united nationwide mission critical communication system for the country," commented Ming Kam Wong, deputy general manager of Hytera international business.

The TETRA digital standard as a global open protocol provides secure, encrypted communications for mission critical operations as well as promoting a more efficient use of spectrum. More than 750 interoperability (IOP) certificates have been awarded to more than two dozen manufacturers by the TETRA + Critical Communications Association (TCCA), the governing body, globally, for the TETRA standard.

For more information, please visit: www.hytera.com. == +

Pelco by Schneider Electric's Optera™ Cameras Fully Integrated with OnSSI's Ocularis VMS

Comprehensive Integration Includes Optera Multi Sensor Panoramic Cameras

earl River, NY – Ocularis 5, the latest VMS solution from OnSSI is now compatible with Pelco's Optera Multi Sensor panoramic cameras. Optera cameras include 180°, 270°, and 360° versions, all of which offer a blended and seamless panoramic viewing experience without disruption or distraction.

"The integration of Pelco's Optera camera line and OnSSI's Ocularis 5 VMS provides a powerful, highly efficient system solution for numerous surveillance applications," said Mulli Diamant, VP of International Business Development, OnSSI. "Both end users and integrators alike will benefit from this integration by increasing situational awareness and improving overall ROI."

Optera Multi Sensor cameras feature 12MPx resolution with electronic PTZ across the entire panoramic field of view to provide highest-quality, uniform image detail. The technology elevates both live and forensic scene analysis to a completely new level for today's security professionals. The cameras additionally feature Pelco's SureVision 2.0 technology to overcome glare, along with WDR and low light performance to deliver the best panoramic images available in varying conditions.

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"OnSSI is a leading provider of high performance VMS solutions and we are pleased to expand our existing technology partnership to provide our mutual customers with the new features and benefits available in our joint solution," said Jonathan Lewit, Director of Technology Leadership, Pelco by Schneider Electric. "The broader capabilities provided by the integration of Pelco's Optera camera line and OnSSI's Ocularis VMS presents new opportunities for all involved."

Ocularis 5 provides more robust network and video security with features including end-to-end encryption for the VMS, a scrambled recorded video database to protect the integrity of recorded video, and the ability to record directly to a NAS anywhere on the network.



Ocularis 5 is an intelligent, cost-effective VMS platform that simplifies workloads and management. There is no need to register camera licenses and MAC addresses. It features automatic load balancing for managing recordings across system servers. Unique to Ocularis, Critical Camera Failover ensures continuous surveillance by switching to a failover camera in as little as two seconds. Ocularis 5 also allows for multiple different recorders to be combined under the same Base (including legacy Ocularis 4.X recorders) with centralized user and event management.

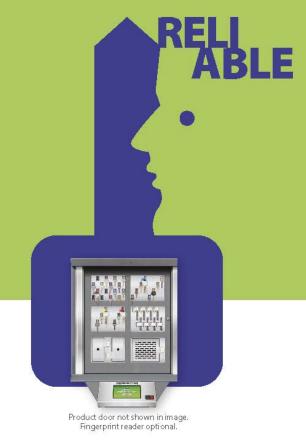
For more information, please visit: www.onssi.com and www.pelco.com. == T

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Farpointe Long-Range Access Control Systems Now Support MIFARE DESFire EV1

Farpointe Data's Ranger Transmitter Supports Long Range, Proximity and, Now, Smart Card Presentation Technologies

unnyvale, Calif., USA- Farpointe Data, the access control industry's trusted global partner for RFID solutions, announced that access control manufacturers, distributors and integrators can now add a 13.56-MHz contactless smart card module with MIFARE® Classic or today's benchmark, the DESFire EV1, to their customers' Ranger long range transmitters, making them compatible and interoperable with Farpointe Data contactless smart card readers and credentials. The Ranger product line has always been compatible with Farpointe Pyramid proximity systems, being equipped with potted proximity supporting 26bit Wiegand as well as custom Wiegand formats plus certain HID® and AWID® 125-kHz proximity protocols. Transmitter coding is sequential, exactly as ordered, with no over or under runs.

"EV1 sets the security benchmark for presentation technology," emphasizes Scott Lindley, president of Farpointe Data. "Access control system manufacturers, integrators and dealers promoting long range reading will be able to tout greater security over MIFARE Classic smart card technology because MIFARE DESFire EV1 uses 128 AES encryption, the same as used by the U.S. federal government. MIFARE DESFire EV1 is based on open global standards for both air interface and cryptographic methods. It is compliant to all 4 levels of ISO/IEC 14443A and uses optional ISO/IEC 7816-4 commands."

Regarding other security issues, users can take advantage of the impressive read range, which allows the Ranger receiver to be installed on the secure side of an installation, out of harm's way. Secondly, an element of the Ranger transmitter-to-receiver long-range, overthe-air protocol takes advantage of a secure, digital anti-playback routine. It is based on a custom enhanced rolling code variant of the Tiny Encryption Algorithm (TEA). The anti-playback feature virtually eliminates the risk of code sniffing and unauthorized cloning. Lastly, Ranger supports MAXSecure, a unique Farpointe option, providing a higher-security handshake, or code, between the transmitter and receiver to help safeguard against credential duplication and ensure that a specific enduser's receiver will only collect data from these specially coded transmitters.

Used in conjunction with smart card technology, the



Ranger Transmitter supports both long range and smart card presentation technologies with a wide range of end-user applications. Long range access control solves a number of demanding access applications that call for extended read ranges, such as parking lots, alarm activation, building entrances, marina gates, facility lock-downs, remote door opening and more. It can be used in any application where pressing a button is more convenient than presenting a card. And, once at the facility's front door, the transmitter can still be used in lieu of a card.

For many, Ranger has been found to be an ideal solution for those applications where it's critical to move larger vehicles through a secure portal, such as aircraft in and out of a hanger or tractor trailers moving in and out of terminals. For the latter, oftentimes the private property on the unsecure side of a gate allotted for trucking is limited and local authorities frown greatly on a spill over onto public roadways. Competing solutions may have inconsistent range and cannot quickly move multiple, large vehicles through these areas. The added range reliably provided by the Ranger can eliminate this stack-up. Gated housing communities appreciate the long read range of Ranger, up to 200 feet, and marinas value the ruggedized construction of the Ranger, which is both weather- and vandal-resistant.

Ranger transmitters deploying smart card technology are available now.

For more information, please visit: www.farpointedata.com. *≡≡⊤*

Morse Watchmans KeyWatcher® Touch Introduces New Upgrades

G2E Debut Focuses on Security and Added Convenience

as Vegas, NV- Morse Watchmans is introducing enhancements to its KeyWatcher Touch that are designed to make the key management system even more flexible and useful in fulfilling the safety and security needs of resorts and casinos. New features being presented at G2E this week include security and notification upgrades and ease of use improvements, all driven by real-world customer feedback.

"Now KeyWatcher Touch brings more convenience and network security to add to the ways users benefit from their investment in key management," said Fernando Pires, VP Sales and Marketing, Morse Watchmans. "By listening to our customers and anticipating their needs, we can continue to deliver outstanding key management system quality."

New security features protect the system from cyber breaches via the network. With the firewall enabled, all incoming traffic is ignored unless it is on the specific ports the system requires for network and server communication. The data between the KeyWatcher Touch and the KeyWatcher Touch Server can now be encrypted with AES256 technology with a pre-shared key that is definable on a site-by-site basis.



The KeyWatcher Touch Key Management System is also now integrated with AMAG Technology's Symmetry V8.0.2 Access Control System.

For further operational convenience, a number of additional upgrades have been implemented. Now KeyWatcher Touch Server service can run under a domain user account. Windows authentication is now supported for SQL, while server logins eliminate the need for the IT department to add SQL users to the SQL Server for the purpose of authentication. The KeyProTM III software import utility has been revamped to make it easier to use; for example, imports can now be performed as needed rather than having to complete them all up front.

Day-to-day user conveniences have also been upgraded including the ability to replace keys from TrueTouchTM key tracking software using the SmartKey reader. A new notification that allows for users to be notified when an overdue key has been returned is also included, as well as notifications for dual and triple user removals/returns. All reports in TrueTouch now support being saved/viewed as a PDF, or saved as a CSV file.

With these updates, KeyWatcher Touch makes key control for the enterprise safer, easier and more convenient.

For more information, please visit: www.morsewatchmans.com. == =



Salford City Council reaps immediate benefits from Hikvision 4K PTZ camera

alford City Council has experienced wealth of recent success using Hikvision's IP cameras - to the extent that it has been standardising on Hikvision cameras across its public space surveillance network of 109 cameras. So when the chance arose to upgrade to a brand new 4K Smart PTZ camera, the Council jumped at it. The results, including increased viewing distances and image quality without a major impact on bandwidth, have been remarkable - and could revolutionise the way Salford uses CCTV cameras in future. Salford City Council in Greater Manchester has truly embraced Hikvision technology to provide its video surveillance. Hikvision Darkfighter cameras are providing crystal clear night-time images, and the Council is upgrading to Hikvision cameras wherever there is a failure with a legacy camera. Recently the opportunity arose for Salford Council to use one of the first 4K Smart IR PTZ cameras available in the UK. The Council had no hesitation in saying, "Yes please!" Councillor David Lancaster, Lead Member for Environment and Community Safety, explains that the new camera is leading the way both in terms of performance and helping the Council manage budget reductions. "Over the last five years Salford City Council has seen its government funding reduce by 40%. We're having to manage that as well as helping combat crime, and the CCTV cameras are invaluable - as well as helping to detect missing people who might be vulnerable," he says. "With this technology we can reduce the number of cameras we use, requiring less capital but still getting the same results. In one instance, for example, we were able to decommission a camera that had developed a fault;



One image of a city street captured by one of the new Hikvision cameras.

instead of repairing or replacing it, we upgraded the other camera covering that street to a Hikvision IP model. That camera, courtesy of its Darkfighter technology and 23x zoom, can now see the full length of that road. We never would have been able to do that with the old technology. "We have a number of strategic vantage points, provided courtesy of high rise housing blocks. These blocks are located in most of our wards, and being 13 storeys or so high they give us a very good view of the surrounding area."

Motorbike dangers

One of these rooftops is located in East Salford, where local residents have complained about the use of off-road motorbikes travelling at excessive speed, with very little regard for pedestrian or vehicle safety. Previous cameras used on that high-rise rooftop struggled to obtain clear facial images of the riders.

Councillor Lancaster says: "When Hikvision announced that they had released a 4K PTZ camera, we immediately thought it was an ideal opportunity for us to try it in this location. Our CCTV operators were blown away by it.

"With this camera's 8 megapixel image they can now clearly see the full length of that road, which they have never been able to do before. The field of view on this camera is in excess of half a mile. Not only can operators get that increased distance, they can now achieve facial detection of people riding motorbikes at speed, as well as reading vehicle registration numbers."

The camera has been an immediate success, capturing clear facial images of a recent off-road motorbike offender - images which have been provided to Greater Manchester Police, who are now taking action against the offender.

Nighttime colour

The camera is a Hikvision DS-2DF8836IV-AELW model, which features 4K 8 Megapixel (4096 x 2160) resolution, 36x optical zoom, Smart Suite analytics, Smart Tracking, Smart Recording, 200m infrared range, and an in-built wiper function - something Councillor

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Lancaster says is very welcome in Salford's rainy climate!

Councillor Lancaster also says the new camera has provided an unexpected benefit.

"With the previous camera we had installed there, the image went to black and white around 11pm at night," he says. "With this new camera, the images stay full colour at all hours of the day and night. And that is despite the camera being 13 storeys up. We can't quite get our heads round how this camera can still record full colour images in very low light conditions.

"The result is that we're getting clear images day and night and are able to give the police even better information to help them locate offenders and missing persons. The image quality is now phenomenal."

The new camera's increased field of view is also allowing the Council's CCTV operatives to pan around and cover roads that they have never been able to view before. This additional coverage is being replicated with other Hikvision cameras around the city, providing a welcome relief on budget pressures.

Bandwidth benefits

While the new 4K camera packs a lot of pixels into its images, it has a surprisingly gentle impact on Salford's network bandwidth, Councillor Lancaster says.



A wide area view of the City of Salford, including marked locations for images taken by other cameras.

"Our network is primarily wireless. So we're usually very apprehensive - we were when we went from 1.3MP Hikvision cameras to 2MP, and now we're going from 2MP to 8MP. But our findings are that they're nowhere near as bandwidth intensive as we would have envisaged," he says.

"When you look at the previous digital IP cameras we used from other manufacturers, we were finding that they were drawing something like 12mb on a 1.3MP camera. However, with Hikvision's 4K-8MP cameras, we can stream it at 8mb, and still get the full 4K images. It's phenomenal. It really is."

Looking ahead

Salford City Council's intention is to continue standardising on

Hikvision cameras, replacing those that fail as needed.

Councillor Lancaster says: "When the opportunity allows we're looking forward to going from the 2MP cameras which we were standardising on before, to these 4K 8MP cameras.

"The technology has come on in leaps and bounds. And that's what always amazes us with Hikvision. They're a very progressive company. Their products change not just for the sake of it. They don't just rebadge something. The workings of that camera are fundamentally redesigned and significantly improved with every product release."

For more information, please visit: www.hikvision.com. == \tau

Do you have news for us?

Good! Email us at sst@tradelinkmedia.com.sg





Hikvision PanoVu Panoramic Camera Wins Prestigious GIT SECURITY Award

Voted on by readers of GIT SECURITY magazine, the award recognizes the PanoVu Panoramic Camera for its simple design, superior image quality and easy installation.

ikvision, the world's leading supplier of innovative video surveillance products and solutions, is proud to announce that its PanoVu 360-degree panoramic camera has been named Best CCTV and Video Security Product in the prestigious 2017 GIT SECURITY Awards. The annual GIT SECURITY awards are recognized as one of the most fiercely contested anywhere in the world, with products nominated and voted on by the 75,000 GIT SECURITY and GIT SICHERHEIT readers to produce three wining products in each category. GIT SECURITY and GIT SICHERHEIT magazines are the highest circulating security magazines in the EMEA region and Germany.

The 16MP PanoVu DS-2DP1636-D camera provides 360-degree distortion-free Ultra HD images by seamlessly integrating eight separate 1/1.9" progressive scan CMOS sensors into each camera. These 8 cameras link with the PanoVu's powerful 36x optical



PTZ unit and Smart tracking capabilities to ensure that no detail within the panoramic scene is missed, and capture highly-detailed high-resolution colour images down to 0.002 Lux for round-the-clock, 360-degree monitoring, which makes it ideal for public open spaces in busy city centres.

The combination in one unit of 360-degree panoramic viewing and powerful PTZ curtails costs, reduces technical complexity and simplifies installation by allowing users to replace multiple cameras with just one PanoVu. Its all-inone design uses a single Ethernet cable and one power supply cable for quick implementation and simple configuration.

Hikvision International Marketing Director Keen Yao says the GIT SECURITY Award is a great honour and recognition of the work done by Hikvision's dedicated designers. "We are very pleased to receive this prestigious award from the knowledgeable readers of this highly-regarded magazine. The PanoVu series features a simple, clean design and compact structure that provides ultra-high-definition panoramic images, seamlessly integrating video from multiple sensors in one unit. We believe it is the best equipped high-end panoramic solution on the market."

Hikvision PanoVu Series is designed for large-scale security monitoring applications such as stadiums, city centres, airports and parking lots. The product family is available in 8 MP - 180-degree and 16 MP - 360-degree variants, allowing users to select the ideal model for their specific surveillance application.

In April 2016, Hikvision's PanoVu Series also won an iF Design Award - acknowledged as a symbol of design excellence around the world.

For more information, please visit: www.hikvision.com. == \tau

Castel IP Intercom chosen for redeveloped Mersey Wharf Business Park

reat Notley, UK- Mersey Wharf is a 33-acre Business Park and Wharf in Bromborough. Located on the Wirral in northwest England, the rejuvenated facility has adopted two-way IP audio-video intercom designed and manufactured by Castel.

Security at the site is at a premium and the operators needed an IP-addressable solution at a main entrance station where visitors can call tenants on the estate. They also wanted to control entry at multiple single-gate, barrier and turnstile access points elsewhere on the perimeter.

Mersey Wharf Business Park has two operational berths with a quay length of 230 metres. The project made unusual demands on Castel because the equipment's location required robust units. The client's technological sophistication also required IP units that could integrate seamlessly with access control and CCTV.

The Business Park owners opted for Castel's Xellip full IP/SIP intercom and audio-video solution. For the central entry station to Mersey Wharf Business Park, the client specified Castel's ten-button CAP IP Intercom (Xellip) with integrated

colour video camera. The unit's 316-grade stainless steel front panel, IP64 rating and impact resistance to IK09 all provide protection against the site's harsh marine environment. The intercom features three LEDs that ensure compliance with the Equality Act (formerly the Disability Discrimination Act).

Remote monitoring and operation

Calls that are not answered by Mersey Wharf Business Park tenants are transferred to the central control lodge, which is operated 24/7 and, if necessary, they can also be diverted to a remote location. The operator's employees can use a licence-free App from Castel's own SIP (Session Initiation Protocol) server to observe activity remotely and grant or refuse access using their smartphones or tablets.

The control lodge and other on-site security locations across the port use CAP IP XE 7-inch monitors. As with all the Castel equipment for the project, these monitors are PoE (Power over Ethernet) units and they allow tenants and employees to view and communicate with visitors using a touchscreen that can be desktop or wall-mounted. The screens are usually deployed locally at the Business Park, but an

embedded webserver also allows them to be monitored, operated and even configured remotely if required. At individual turnstile and small gate entrance points used by members of staff or lone contractors around the Business Park perimeter, the client opted for Castel's CAP V1BP one-button intercom station units with integrated MIFARE card readers.

Future multi-site integration

As an IP solution, Xellip ensures interoperability with VoIP telephones and IP video surveillance. By using full SIP and standard codecs for audio and video, Xellip will be able to meet the company's group plans for the centralisation of facility management technology at its multiple sites across the UK.

Mark Hagger, Castel UK, said: "The sheer scale of this project shows that when required we can also be an enterprise system for estates of unusual size, be they marine or in the further education, government and healthcare sectors. Castel won this contract through being a scalable open-protocol IP product with PoE components, minimal peripherals to complicate system design and the ability to share Cat5 with other disciplines."

Mersey Wharf Business Park has extensive development areas, with prestige offices for rent and warehouse and industrial units for a wide variety of uses.

Picture caption: At the central entry station to Mersey Wharf Business Park, the client specified Castel's ten-button CAP IP Intercom (Xellip) with integrated colour video camera.

For more information, please visit: www.castel.co.uk. $= \tau$





Hikvision Introduces Advanced Thermal Cameras for Visually-Challenging Applications

Continually seeking to push technology forward in high-end surveillance markets, Hikvision announces new Thermal Cameras, adding to their world-renowned security products

above absolute zero emit some degree of thermal radiation. Thermal sensors can detect this kind of radiation, which is not visible to the human eye. Hikvision thermal sensors remain unaffected by darkness or fickle weather conditions such as rain, fog, or snow. These cameras make a great platform on which to build more efficient 24/7 surveillance systems.



Superior Images

Thermal products carry surveillance abilities that traditional visual imaging alone is not able to provide. Integrated with their self-developed thermal imaging module, Hikvision thermal cameras capture vivid, high-resolution HD video of moving objects at resolutions up to 640×512 pixels, unhindered by either darkness or inclement weather. These cameras also offer greater detail for post-event investigation.

Hikvision Thermal Cameras Feature three innovative functionalities in image quality enhancement: Auto Gain Control, Digital Detail Enhancement, and 3D Digital Noise Reduction.

The Auto Gain Control (AGC) adjusts the dynamic range of the image to make the picture retain helpful permeability; Digital Detail Enhancement (DDE), based on an algorithm for a region of interest, renders more detail in the onscreen image; and 3D Digital Noise Reduction (DNR) further minimizes the influence of "hot pixels", making images even sharper.

Smart Functions

Equipped with onboard video analytics, Hikvision thermal cameras boast a full quiver of "smart" features, including line crossing detection and intrusion detection for perimeter protection. Additionally, temperature-anomaly and fire detection effectively help prevent fires, structural hazards, and many other threats to persons and property.

Thermal imaging is critical in open and expansive areas like borders, coastlines, and forests. They are quite at home in applications such as perimeter patrol, ports and harbors, critical infrastructure, processing and manufacturing plants, and various similar and demanding security environments.

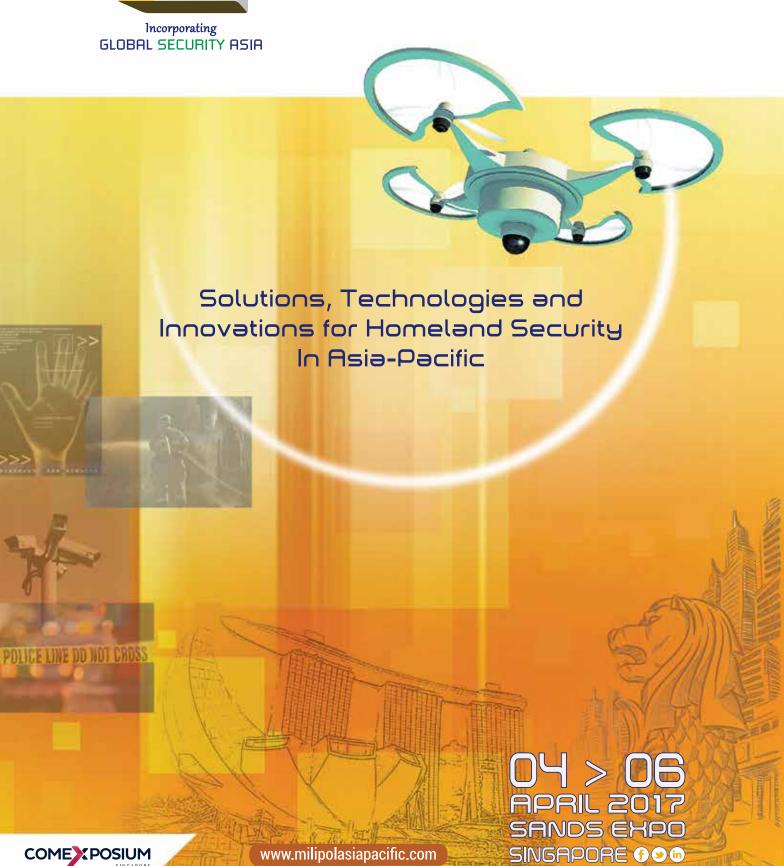
Choice of Dual Lens Model

Hikvision Thermal Cameras are available in single and dual-lens models. The dual-lens models add optical cameras alongside thermal cameras, providing thermal and standard images at the same time. This enables security personnel to better identify target objects. The optical lens helps to capture images at up to $1920 \times 1080p$ resolution day and night. The Smart Tracking function is also available in Speed Dome model cameras.

For more information, please visit: www.hikvision.com. == +



7th International exhibition of homeland security





Secutech returns for its 20th edition

n commemoration of its 20th anniversary, Secutech 2017 is scheduled to run from 12 – 14 April 2017, once again at the Taipei Nangang Exhibition Center. Since its debut in 1998, the annual show has made strides and established itself as one of the most holistic platforms for global industry players to network, expand businesses and explore future trends in the safety and security market.

Secutech is particularly renowned for its decisive response towards market change. In 2016, the show organiser further broadened the fair's product profile in response to the burgeoning demands for total solutions for the smart home, energy management, info security and fire & safety sectors



that bring higher cost effectiveness. It was concluded a success as it attracted 24,346 trade visitors of OEMs, ODMs, system integrators and buyers from 85 countries and regions.

Ms Regina Tsai, the Deputy General Manager of the show organiser provided an insider's look at the recent industry development. She said, "There have been a number of mergers and acquisitions taking place since 2015. These new strategic partnerships often involve multinational firms, which intend to enter new markets geographically, or extend and better the existing product variety. In particular, there is a huge demand for surveillance systems to be applied in various areas, such as access control, audio, building automation, fire, intrusion and IT. Suppliers of the best solutions and software that allow assured compatibility and seamless integration are getting more attention and opportunities in the market."

Supported by a research programme with participants of the previous show, Ms Tsai expects that the security industry will continue to be dominated by three key ideas: IoT, big data and cloud. She explained: "The majority of our buyers expressed their interest in these technologies that can evolve the existing standards and traditional security devices. To maintain their competitive edges in the market, they are looking to develop the next generation Video Content Analysis (VCA), AI, machine learning, multi-sensor camera, cloud-based systems, security robots and drone detections, which help them stand out in the crowd."

As such, in addition to the extensive display of the latest security products and solutions, Secutech 2017 will retain its focus on the applications and smart devices in a diversity of vertical markets- ranging from transportation and industrial use to retail and building & home. A number of dedicated zones will be established to offer demonstrations of other key security technologies. These include the Software Innovation Zone, the 3D Intelligent Video Analytics Show Room and the UHD Intelligent Surveillance Performance Award. "Like always, we strive to provide the most effective platform to complement the changing industry dynamics and facilitate collaboration and partnerships which will bring businesses to the next level", Ms. Tsai added.

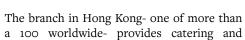
Secutech is organised by Messe Frankfurt New Era Business Media Ltd, alongside its specialty zones, SMAhome Expo, Fire & Safety and Info Security.

For more details, please visit www.secutech.com. Alternatively, please contact Ms Danielle Lin at +886 2 8729 1017, or send an email to danielle.lin@newera.messefrankfurt.com.

For more information, please visit: www.messefrankfurt.com. == \tau

Surveon Secured the Surveillance System for Airline Catering Service Provider in Hong Kong

ew Taipei City, Taiwan - Surveon is pleased to announce that the worldwide service provider airline catering and provisioning, adopted Surveon's IP surveillance solutions as their partner for security application. With Surveon's comprehensive surveillance product lines- including high-resolution network cameras, professional megapixel recorders and enterprise-level management software, the service provider can easily monitor important working areas at any time to make sure their service can be delivered on time with top quality.





provisioning service for airlines with flight services in the HK airport. From basic beverage and snack assembly to fresh food for full-scale catering, the company stands out for its operational and culinary excellence. Passengers have also given account of their satisfactory experiences. In order to maintain its position as a trusted supplier, the service provider needed to find a reliable and intelligent surveillance solution. This solution would have to efficiently monitor working areas where food safety and facility inspections require constant auditing to comply with all necessary location-specific regulations.







Surveon's major partner in Hong Kong adopted nearly 60 cameras in this project, including 2MP indoor dome camera CAM4311S2 with Sony Exmor sensor and audio in/out to record clear images and assist in managing the staff in the kitchens. Additionally, the outdoor dome cameras CAM4361LV with 3-axis support provide

wider coverage to prevent any people and vehicles of suspicion from entering without authorization. Moreover, the 5MP indoor fisheye cameras CAM4571RF were also selected for their ability to cover wide areas with excellent image quality via their dewarping functionality. These models provide smart WDR and 2D/3D noise reduction to ensure clear images under different lighting circumstances.

Furthermore, Surveon NVR3308, featuring 8-bay hard disks and supporting up to 64-channel 5 megapixel recording with RAID, was chosen to provide large capacities for 24/7 non-stop megapixel recordings and 180-day video retention periods. Along with its all-in-one sleek design and low power consumption, the NVR3308 provides a simple, affordable yet professional solution for the customer. The NVR3308 also comes with Surveon VMS, offering rich services including camera control, live monitoring, recording, configurable playback, and alarm handling. Its remote viewing allows security guards to manage surveillance anywhere, preventing incidents such as fire. "There is no hassle to search for hardware and test compatibility since we deployed Surveon's end-to-end solutions. We are satisfied with the performance and image quality of the surveillance system that has facilitated the food safety and security of the business operation; which is crucial for this industry." said the managing director for the surveillance deployment.

Surveon is dedicated to offering a variety of end-to-end video surveillance solutions catering to different vertical applications, giving partners reliable options for their projects.

For more information, please visit: www.surveon.com. == \tau



Surveon Protects the Property and Profits for Commercial Buildings with Enterprise Surveillance Solutions

ew Taipei City, Taiwan-As people go in and out of the buildings every day, security has become an important priority in the operation commercial of buildings. IP surveillance solutions are particularly essential for commercial applications generally used in wider and more open areas that require system scalability. Surveon provides commercial solutions with product lines. Particularly, 3 megapixel cameras with 1.5-times larger monitoring range at 30 FPS, feature-rich VMS with active VI detection function as well as RAID NVR with scalable architecture. These enterprise solutions help commercial buildings to prevent thefts or other illegalities, effectively safeguarding their property and profits.

To protect the property and people from potential threats, commercial buildings might encounter some major challenges such as open fields and wide monitoring areas when designing a suitable surveillance system. Under such circumstances, Surveon's 3 megapixel cameras provide 1.5-times larger monitoring

range at 30 FPS, offering a costeffective option for monitoring
wide areas. Moreover, their low
light performance and WDR allow
security guards to easily recognize
crucial details like license plates and
prevent any unwanted vehicle from
entering. Amongst Surveon camera
selections, 2MP 3-axis support
indoor dome CAM4311S2, 2MP
WDR bullet camera CAM3371EM
and 5MP outdoor fisheye camera
CAM4571RF are possible options to
use under this application.

The data protection of recorded videos and the scalable, endto-end, and robust support for hundreds of megapixel cameras for the whole system structure are of great importance to the planning of commercial surveillance. Surveon's RAID NVR provides scalable architecture that brings commercial buildings an ideal solution that offers less maintenance effort, fewer required hard disks and lower costs. Besides, the iSCSI storage itself provides functions such as local or remote replication to further strengthen data retention, giving commercial projects the most reliable solution for backup

usage. Lastly, Surveon's enterprise Central Management Software supports hundreds of channels in system architecture hierarchy, offering rich services such as camera control, live monitoring, recording, configurable playback, and alarm handling in order to be kept abreast of every detail. Its remote viewing allows security guards to manage surveillance anywhere, reacting to emergencies in time.

Surveon commercial solutions have been successfully applied in the KL Tower, the highest building in Malaysia. Mohd Salim Ghonah of VIMS Technology, the security project manager for the KL Tower said, "Surveon's full end-to-end integration, including enterprise VMS and storage that supports up to 300TB, helps us manage the project in a most efficient way and brings the lowest risk." Surveon is dedicated to offering comprehensive vertical applications catering to different project needs.

For more information, please visit: www.surveon.com. ≡≡⊤

Surveon Safeguard Post Offices in Cairo with Reliable Surveillance Solutions

ew Taipei City, Taiwan– Surveon is pleased to announce the Egyptian post office has deployed Surveon's IP surveillance solutions as their partner for security application. With Surveon's reliable surveillance solutions, including megapixel camera and professional megapixel recorder, more than 100 post offices were under solid surveillance protection to ensure their safety and the smooth running of their services that could be delivered in the best quality.

Serving people for a century, the Egyptian post office with more than 100 branches in Cairo has developed and expanded the scope of their service with changing times- now providing financial, postal, community, printing and

continue on page 29

publishing services to the whole country. Due to the open nature of post office operations and their variety, the offices in Cairo needed to upgrade their surveillance system to monitor main entrance and front desks with improved images while also being cost-efficient.

Surveon's 2MP compact box camera CAM1301 was selected for the main entrance and front desk of the post office, that held smart WDR and IR LED to ensure clear images under different lighting circumstances. The compact design made the cameras less intrusive for visitors while the surveillance was going on.

All Surveon megapixel cameras come with industrial-grade components to ensure product reliability for long-term operations. Supporting up to 6-channels with 200 Mbps recording throughput, the Surveon SMR2006 with 2 hot-swappable hard disks and RAID 1 data protection was chosen to provide reliable performance for 24/7 non-stop megapixel recording. Along with the tower design and low power consumption, the SMR2006

provided a simple and cost-effective solution for this case. Paired with Surveon's scalable enterprise VMS, the solution not only improved safety and security, but also provided robust prevention, preparedness, detection, and quick response measures for the post offices.

"We are pleased with the performance of the surveillance system and also impressed with the good quality from Taiwanese products. Surveon's comprehensive solutions always can provide the affordable yet professional solutions for our projects." said the project partner in Egypt.

Surveon is dedicated to offering a variety of end-toend video surveillance solutions catering to different vertical applications, giving partners reliable options for their projects.

For more information, please visit: www.surveon.com. == \tau

Dahua Unveils New Video Recorder - XVR

angzhou, China- Dahua Technology, a world-leading manufacturer and supplier of video surveillance products headquartered in Hangzhou, China, officially announces the launch of XVR, which is a true Penta-bird video recorder.

Dahua XVR is an ideal one for all recorders which supports 4 mainstream analog camera types in the market as well as IP camera. It offers compatibility as well as storage flexibility.

Penta-brid

Dahua XVR is a newly developed HD Video Recorder based on industry leading open structure- designed to be compatible with multiple access technologies. It is the perfect solution to upgrade existing video surveillance systems. XVR supports 4 mainstream analog camera types in the market. Not only traditional CVBS (analog) cameras, but also HDCVI, AHD and TVI, as well as IP cameras can be supported. Moreover, XVR recognizes the signal formats from the cameras automatically, including both Dahua cameras and third party cameras. True plug & play makes operation more user-friendly and convenient. All of these features make XVR a true Penta-brid video recorder.

Compatibility

POC (power over coaxial) helps XVR to simplify users'



network cable construction, eases the wiring of power cable and maximizes users' benefits. In addition, users can switch video channel type in OSD menu or HDCVI UTC controller.

High performance

Dahua XVR has changed to a newly designed chassis with low-noise fan and hive structure heat dissipation. Smart H.264+ Codec is applied to XVR to save up to 50% bandwidth and storage. The upgrade of power electronics components and interface protection enhances XVR's quality in terms of anti-crosstalk, anti-ESD and anti-surge.

For more information, please visit: www.dahuasecurity.com. =



ASIS International China Conference Returns to Shanghai

Brussels - ASIS International, the global organization for security professionals, will once again organise its China Conference in Shanghai on 14 and 15 November 2016. Last year's inaugural event was sold out, with attendance comprising primarily of senior security practitioners from large multinational companies with important operations and staff and suppliers in China.

In this edition of the event, expert speakers from companies such as AIG, DuPont and China National Petroleum Company will cover key issues for multinational companies doing business in China; local and regional risk outlooks; and the latest approaches to incident response.

The program will address major developments from cyber-physical risk convergence to evolving terrorist threats. The conference sessions will be in English with simultaneous translation provided.

Conference sponsors will include Tyco, G4S and Global Rescue.

For more information, please visit: www.asisonline.org/shanghai. == \tau

Hikvision honored for providing 'best-in-class' G20 Hangzhou Summit security solutions

ikvision, the world's leading supplier in innovative video surveillance products and solutions, has been awarded souvenir medals by the Hangzhou police department, in recognition of the company supplying 'best-in-class' security solutions and services

to play a crucial role in the security project. Of special note, Hikvision's Intelligent Traffic System was deployed to greatly enhance traffic flow throughout the city, encompassing efficient response, linkage alarms and emergency deployment, to name but a few advanced traffic management features.

to safeguard the 2016 G20 Hangzhou Summit.

Comprehensive product lines for versatile applications

Hikvision' involvement and preparation for the massive G20 security project was over a year and a half in the making. The company supplied security products to cover a variety of key installations throughout Hangzhou, including Hangzhou's International Airport, metro and railway stations, highways and main traffic intersections, as well as the G20 Summit conference hall and reception hotels.

Hikvision's HD network cameras, transition and displaying devices, access control and alarm systems, and centralized management platform were all utilized

State-of-the-art technologies

Remarkably, Hikvision's latest technologies, including its UAVs, facial recognition and big data, further elevate the security solutions capability to another level.

"We are proud to have provided our products and support service for the G2o Summit," commented Cynthia Ho, Vice President of Hikvision. "Hikvision will continue the ongoing investment in research and development, to provide industry-leading and reliable products to the market, and offer more benefits and service to our customers."

For more information, please visit: www.hikvision.com. *≡≡τ*

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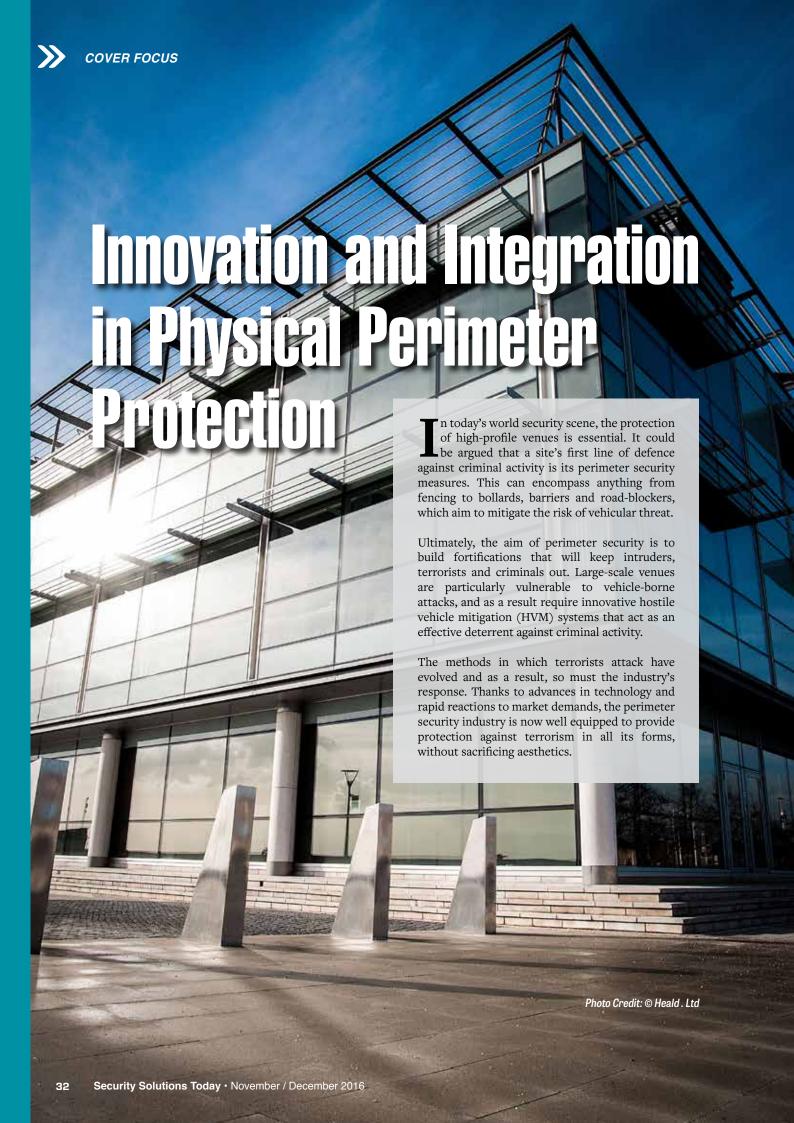
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Security managers are tasked with the complex challenge of identifying suitable measures to protect their property, along with the need to create a forward-looking security strategy that will suit a location's specific needs and architecture.

Anyone currently involved in commissioning and managing new developments should consider security requirements from the outset. HVM measures need to be firmly entwined into the fabric of new proposals. After all, buildings are much more than structures, they are exposed targets.

Airports, shopping malls, banks, stadia, government buildings, embassies; the list of vulnerable properties requiring protection against hostile vehicle attacks is getting longer.

However, the level of threat differs depending on a site's particular function and location. It is necessary to consider all threats to a site and its operations including, traffic movement, the environment, and a site's purpose.

The appropriate counter-terrorism protective security measures should be proportionate to the risk of a terrorist attack to which the building is exposed. Crowded places remain particularly attractive to terrorists due to the prospect of high casualties and political impact.

If installed during the initial planning process, HVM systems

can integrate seamlessly with the surrounding environment and architecture. Rapid and substantial changes in technology, the world security scene and individual site requirements usually dictate the design of new products that come to market. Sites must consider the design of HVM measures holistically to ensure the correct level of protection is achieved without sacrifice to the environment.

In almost every project, be it commercial, public or historic the look and feel of the environment is critical. Often, outer covers can be created for products upon special request, to suit the particular requirements of the site. Stadia and shopping malls often demand a more modern design in contrast to more traditional, historic buildings, which require more covert security products.

Rapid and substantial changes in technology, the world security scene and individual site requirements usually dictate the design of new products that come to market.

For example, certain sites such as car parks do not allow for deep excavation, in which case, systems are designed to need as little as 500mm for excavation with no additional rebar or pre-casting of the concrete.

The option of shallow mount is a huge advantage not only to the speed and ease of fitting, but also in providing high security in areas where a deeper installation is simply impossible due to beneath the surface issues such as under road ducting or sewage pipes.

Once the vulnerabilities of the site have been assessed, suitable measures can be proposed. There is certainly no 'one size fits all' response, as each and every situation requires an informed and individual solution.

When considering a site's requirements, pedestrian access and safety takes priority, along with the integration with other security systems. HVM systems are designed to be pedestrian friendly, allowing for safe access to a site with no trip hazards.

Moving on from the simple pushbutton control, HVM's can usually be operated or powered by intelligent monitoring systems, which offer unprecedented levels of interaction with automatic security barriers. This allows users to control and monitor multiple road blockers and bollards securely via smartphones, tablets and computers.

Some systems may even be set to text regular updates to a user's phone or when an issue is detected; meaning users can be kept fully up to date from anywhere in the world about the security of their site.

With a wide variety of high performing hostile vehicle solutions on the market and rigorous testing standards in place, today's solutions are well placed to meet the requirements of even the most challenging of sites. That being said, the security industry cannot become complacent; innovation and integration should be central to the creation of new HVM products.

For more information, please visit: www.heald.uk.com. *s= t*



Meet Axxon Next 4 — a nextgeneration VMS from AxxonSoft

xxonSoft is a leading global developer of physical security information management (PSIM) platforms and open video management software

The company has over 2,500 partners, which perform over 1,500 installations every month. With more than 40 offices around the world, the company provides its partners with fast response times and exceptional support in every corner of the globe.

AxxonSoft is a member of the ONVIF forum and offers integration for approximately 8,500 models of IP cameras, allowing security users to get the most out of on-board camera features.

According to IMS Research (UK, 2013), AxxonSoft is one of the world's top four developers in the IP video surveillance category.

One of the company's key products is AXXON NEXT 4 — a state-of-theart open-platform intelligent video management software.

Video surveillance systems based on Axxon Next can scale infinitely: there are no restrictions on the number of video servers, workstations or video cameras. Axxon Next also plays well with other devices and systems.

Security needs of all sizes — from those of large-scale distributed facilities to the smallest sites - can be efficiently met with Axxon Next VMS. Every license includes full, unrestricted VMS functionality, even on systems of just one camera. Users on tight budgets will appreciate the free version of the program, which supports up to 4 camera channels.

Axxon Next 4 has a set of powerful functions:

Momentquest

MomentQuest is more than a search tool (although it is one). It is a set of technologies that generate metadata right at the moment of video recording. The metadata database is the basis for quick and accurate analysis of archives. To find an event of interest later, just enter the necessary criteria: motion in zones, crossing of a line, size, color, direction, speed of object motion, and more. Thumbnails of relevant video episodes are shown seconds. All-night viewing marathons are a thing of the past now. MomentQuest has replaced them with fast, effective criteriabased forensic search.

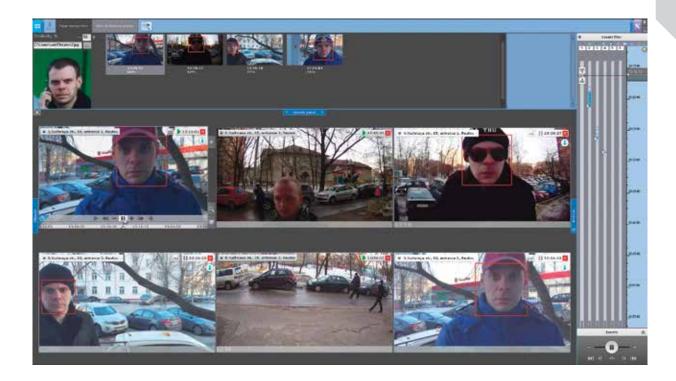
Search in MomentQuest is fast because it is based on metadata, which is calculated for all moving objects in the field of view. The metadata contains objects' attributes that are saved as text strings to a special VMDA* database at the same time as the video itself. *VMDA is an exclusive AxxonSoft innovation, consisting of a database for indexing and storing descriptions of what is happening in the scene.

Face And License Plate Search

Axxon Next features a face and LPR search algorithm that automatically detects a face or a license plate in the field of view or in a provided video footage of one or several cameras. Recognized license plate numbers are saved to a database. The







algorithm involves advanced heuristic methods (such as substitution of similar looking letters/numbers) to identify as many potential matches as possible.

To search for a person, the user uploads a photo and the system compares the face on the photo with the face descriptions stored in the database. The search results show all the scenes with people who look similar to the photo.

Timecompressor

TimeCompressor is a whole new paradigm for efficiency in video surveillance. All moving objects in recorded video are shown to the operator in a short video clip, compressing time but maintaining the original speed of motion of the objects. Just click an object to jump to playback of the corresponding video in normal mode. TimeCompressor is a cut-to-the-chase review of events in the scene. Efficiency in video surveillance will never be the same.

Failover

A server can be selected during system configuration to act as a hot standby in case of failure of a main server. The failover server automatically steps in, performing all the functions previously handled by the hardware that is temporarily off-line or malfunctioning. A special

hypervisor service monitors the health of all servers in a domain.

Cross-System Client

Cross-System Client empowers operators or administrators to connect from a single client workstation to multiple surveillance servers on different domains that are not part of the same system. All settings and cameras associated with these servers are consolidated in a single convenient view.

So operators can access multiple independent surveillance systems simultaneously, even if the customer cannot or does not want to combine these systems. This is particularly useful at geographically distributed sites or a large number of facilities, when bulk configurations are practical. This feature may come in handy for retail chains and gas station networks. Now the customer does not have to create a complex distributed configuration that combines all the servers in a single Axxon domain. Thanks to this capability, operators can make use of all system functions and, as necessary, configure remote surveillance systems from their workstation without needing to connect to each server.

For more information, please visit: www.axxonsoft.com. $\equiv = \tau$



FutureNet Security Solutions's GRAB barrier provides ultimate security

Introduction

The world is facing chaos through treacherous minds at levels that society has not seen before. Every news station centers its focus on the numbers of how many casualties there are of all sorts of destruction. This inspired innovation at FutureNet Security Solutions (FNSS).

The company wanted to change the status quo. FNSS brought products to the table that was designed to protect buildings and property by out-of-the-box thinking from its engineers, ensuring quality material and excellent customer service.





The Ground Retractable Automobile Barrier (GRAB®-300) is the patented lagship product of FNSS. The system provides ultimate security while reducing the likelihood of injury to vehicle occupants.

In numerous real world impacts, the GRAB barrier has effectively stopped vehicles weighing up to 15,000 pounds traveling at speeds reaching 50 mph. Most recently, with Redstone Arsenal, The GRAB® was able to provide safety for the army post after a deranged driver hit a police car and tried to crash through a gate. A conductor deplored the gate. It stopped the driver and the vehicle, leaving 0 dead or hurt outside the vehicle, whilst keeping the driver alive as well after impact.

FutureNet Security Solutions Other Products

FNSS prioritizes safety and security above all else. Many patents and trademarks exist for the products that the company produces such as The Expeditionary Mobile Barrier (EMB™), The SW1900 Wedge, Crash Rated Drop Arms, the SW1700 Electric Bollard, STAR Barriers, the SW1200 M50 Post & Cable Barrier, and many other products.

For more information, please visit: www.futurenetsecurity.com. == T



Frontier Pitts Compact Terra Barriers protect the US President

he PAS 68 Hostile Vehicle Mitigation Drop Arm Barrier secures the entrance of the Hyatt Regency Dar Es Salaam, The Kilimanjaro, Tanzania. On his first state visit to Tanzania, President Obama held meetings at the Hyatt Hotel, Dar Es Salaam. The PAS 68 Compact Terra Barrier was the specified physical security needed as the International Hotel Chain was required to increase security for their visitor.

The Hostile Vehicle Mitigation (HVM) drop arm barrier solution has been successfully impact tested to the latest BSi PAS 68 specification, stopping a 3.5t vehicle travelling at a speed of 30mph/48kph.

The Compact Terra Barrier is a drop arm HVM Barrier that looks like a standard car park barrier and has been successfully impact tested to the BSi PAS 68 specification.

Hydraulically driven for reliability & strength, the Compact Terra Barrier has successfully stopped a 3.5t N1 vehicle travelling at 30mph (48kph), which equates to 311kJ. On impact, the barrier stopped the vehicle within the aperture. The hydraulically operated automatic barrier comprises of an aluminium boom with the latest PST (Perimeter Security Technology). Lower Folding Skirt included as standard, designed for easy installation and maintenance.

The PAS 68 Compact Terra Barrier can be interfaced to any access control systems.

For more information, please visit: www.frontierpitts.com. == \tau





Agent Vi's savVi Real-Time Event Detection secures hydroelectric dam in Kansai

Challenge

Established in 1951, Kansai Electric Power Co., Inc (KEPCO) is one of the nine major electric companies in Japan. KEPCO's service area covers 28,704 square kilometers in the central part of the main island of Japan, and KEPCO supplies electricity to 13.64 million customers.

KEPCO maintains dozens of hydroelectric dams across Kansai. It is important to ensure that there are no unauthorized people in the vicinity of the dams,

as there have been drowning incidents in the past resulting from water discharges. Hence, keeping the dams clear of people is a serious safety challenge for the site operators. Moreover, erecting physical security systems at the dam sites is difficult as the sites are made up of waterways and heavy vegetation. Accordingly, KEPCO sought a trustworthy surveillance solution that does not require the presence of a person on-site.

Solution

Distributor KT Workshop and systems integrator Meteorological Engineering Center (MEC) designed and installed surveillance systems at multiple dam sites across Kansai. As a starting point, one to two cameras at a dozen of these medium-sized dam sites were enabled with savVi Real-Time Event Detection capabilities.

The solution is based on a mix of thermal and standard cameras to ensure the highest coverage during day and night. Fully integrated with Milestone XProtect Professional Video Management System, savVi has been configured to detect all instances of intrusion and to prompt an alert that appears in Milestone's Smart Client.





Result

Despite the challenging environmental conditions, the introduction of Agent Vi's video analytics has enabled effective on-site surveillance. savVi's realtime detections provide an optimal way to safeguard the unmanned, remotely monitored dam sites. savVi serves as an early warning system to alert to the presence of people in the vicinity of the dams. This is of utmost importance as water is released periodically to undertake maintenance work or due to weather changes. When savVi detects a person or vehicle in the dam area, a real-time alert is automatically generated. At smaller sites, savVi's detection triggers a loudspeaker which warns intruders to leave. At larger sites, the detection triggers the loudspeaker warning and generates an alert that is sent to a control center. The operator views an image and a video clip showing the breach, and when required, takes further action to deal with the situation. This has been highly effective demonstrated by intruders leaving the site in response to the loudspeaker warnings.

Accordingly, there have been no safety incidents since savVi was installed at the sites.

Seiichi Kido, President of KT Workshop, stated, "We chose savVi as the product is easy to operate and Agent Vi's technical support is much better than what's offered by other analytics providers. savVi delivers a robust solution – we have a very low False Alarm Rate (FAR) even with the harsh vegetation surrounding the water channels at the expansive sites."

Ariel Frischoff, VP Sales EMEA & APAC, Agent Vi, commented "We are proud to enhance the life-saving safety efforts of a leading Japanese utility company, and look forward to rolling out savVi at dam sites across Kansai. This project shows how video analytics can be used for safety-oriented use-cases beyond traditional security applications."

For more information, please visit: www.agentvi.com. ==T



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AppVision PSIM™

Securing oil & gas installations

The main concern for oil & gas installations is the security of the sites and the health and safety and physical security of its staff. Oil & gas projects are based either on land, often in regions that have security problems, or alternatively at sea on platforms where they are completely isolated and have to fend for themselves in most cases.

Land or sea, AppVision $PSIM^{TM}$ is deployed to integrate, inform, collate & manage real time incident handling and to ensure the correct response procedure is followed.

Some technology partner systems used in Oil & Gas

- Ground Based Radar 360 degree
- Sea Based Radar
- Sea based Automatic Identification System
- Access Control Management
- RFID identification bracelets
- CCTV and VMS
- Infra Red cameras
- Fire alarms
- Public audio address
- Technical alarms from BMS or SCADA

Oil & Gas drilling rig, African coast

Radar control room

AppVision PSIM™ is integrated with the on board radar and AIS systems. This tracks objects 360 degrees around the platform as they approach and the AIS system is used to recognize the approaching ship by its onboard transponder.



Using the friend and foe identification and tagging system, the operator can tag the objects on the AppVision PSIMTM screen with configurable colour coding and label. This allows them to add additional information about the object, which is immediately entered into the AppVision PSIMTM database, for all relevant operators to see and monitor.

Virtual tripwire - using the radar input AppVision PSIM™ is configured to set a no sail zone or virtual boundary around the oil platform. When an object crosses the virtual tripwire an alarm incident is generated, which in turn starts the incident management

& handling procedure as well as automatic triggers to audio alarms onboard.

Infrared cameras and standard cctv cameras are linked to the alarm incidents. As soon as an alarm is generated then the appropriate cameras are displayed instantly on the AppVision PSIM™ video wall or appropriate operator client station.

Crisis management

In this control room the focus is on managing security and life safety in the case of an incident. The incidents above are first handled in the radar control room until an incident becomes more serious,



such as an approaching unidentified fast boat or an onboard fire. The crisis control room also acts as a safe zone, with blast proof doors behind which the crew can lock themselves in and summon help by radio.

Door control is part of the AppVision PSIM $^{\text{TM}}$ management, with a panic button enabling the operator to lock down all the accesses and raise the security system to maximum level

When an alarm event becomes an incident, it is handed over electronically to the crisis control room for management and handling. AppVision PSIMTM displays the incident management procedures and operational workflow to guide the operator through the processes as well as providing manual and automated tools to unify a response through the integrated electronic security systems.

This AppVision PSIMTM control room also manages the tracking of crew members on board using an access control system with RFID bracelets worn by the crew, so that AppVision PSIMTM can easily locate all the crew in real time whenever necessary. This system also doubles up with a people counting feature in AppVision PSIMTM as the RFID system constantly counts the crew members to ensure that none are missing, especially important for lifeboat allocation during an evacuation.

Gas Pipeline & Docking Terminal in Western Europe Seaport

AppVision PSIM $^{\text{TM}}$ uses open architecture to integrate with a variety of best of breed manufacturers of perimeter protection, CCTV & VMS, access control and life safety systems to manage the security of a major gas terminal and pipeline in Western Europe.

The main risks in this sector are loss of containment in storage units; theft from pipelines & distribution centres; attacks by third parties causing disruption and damage to people and the local environment as well as installations. In essence poor security can seriously threaten the continuity of the business.

AppVision PSIM ™ provides a solution for integrating and handling physical security as well as business processes for pipelines and stations. This includes real-time monitoring of all connected best of breed systems wherever and whatever they might be: Cable Sensors in pipelines, Video Cameras and Analytics, Perimeter and Intruder Alarm Systems and Fire Alarm Panels.

AppVision PSIM $^{\text{TM}}$ also interacts with a SCADA

management application and can use the data from the SCADA to generate alarms and start an incident alarm and handling process in real-time. This can be important in protecting staff and reacting quickly to security and process related events from installations.

A useful fact to know is that the modularity of AppVision PSIM $^{\text{TM}}$ allows integrators to deploy and configure the system to incorporate specific modules and features required by a client as well as to custom build new features using the AppVision $^{\text{TM}}$ Configurator that is supplied with all project licenses. AppVision $^{\text{TM}}$ Configurator provides a toolbox of development and configuration resources that a skilled technician can use to custom build new dashboards, features or even drivers.

Oil & Gas drilling rig, North Sea

Central control room

AppVision $PSIM^{TM}$ is integrated with all major security and life safety systems onboard this oil platform off the Norwegian coast.

The principal security system integration sees $AppVision^{TM}$ integrate the on board radar, AIS systems and CCTV systems.

The radar is used to monitor the perimeter security at sea using a virtual tripwire looking for objects 360 degrees around the platform as they approach. The AIS system is used to identify and recognize any approaching ship by its onboard transponder.

Friend and foe identification and tagging system - the operator can tag the objects on the AppVision PSIMTM screen with configurable colour coding and label. This allows them to add additional information about the object, which is immediately entered into the AppVision PSIMTM database, for all relevant operators to see and monitor.

Virtual tripwire & CCTV automated workflow using the radar input AppVision PSIM $^{\rm TM}$ is configured to set a no sail zone or virtual boundary around the oil platform. When an object crosses the virtual tripwire an alarm incident is generated, which in turn starts the incident management & handling procedure as well as automatic triggers to the closest cctv cameras. AppVision $^{\rm TM}$ commands the VMS system, standard CCTV cameras as well as infrared cameras.

For more information, please visit: www.prysm-software.com. **SET**



PORT & SHIPPING

Integrate & manage port security

Shipping is perhaps the most international of all the world's great industries - and one of the most dangerous. It has always been recognized that the best way of improving safety at sea is by developing international regulations that are followed by all shipping nations.

The threats

Worldwide, maritime cargoes and vessels are increasingly targeted by organized criminal conspiracies or individuals involved in alien smuggling, cargo theft, drug smuggling and terrorism. Exploiting weaknesses in port security is central to these crimes.

A complex transnational set of security issues threaten the maritime industry and the movement of cargo in international trade. Those threats include terrorism, piracy, smuggling of stowaways and drugs, cargo theft and fraud, bribery and extortion.

Port security is an essential part of the safe, secure, and competitive operation of the maritime transportation system as well as Homeland Security. It promotes the development of commerce and is an essential element in maritime trade competitiveness.

Pro-active, not reactive Port Security

Security operations should be considered in the earliest planning and design phases for the construction and modernisation of port infrastructure in order to achieve an operational environment designed to limit opportunities for criminal exploitation.





Today's maritime transport concerns

Physical Security and Access Control Information Security Sea Robbery Personnel Security Maritime Terrorism Drug Smuggling
Intercoms & Public Address
Stowaways and Alien Smuggling
Cargo Security and Hazardous Materials

AppVision PSIM™ solutions

AppVision PSIMTM is an open integration platform for deployment at mission critical projects and is used to integrate with best of breed system manufacturers so that they can be used in a unified and coordinated manner for security prevention and reactive response.

Open architecture is essential in ensuring that a project is able to meet the current and future integration needs, without which it is impossible to maintain and upgrade to new technologies without significant additional cost. Customising AppVision PSIM $^{\text{TM}}$ for projects is open to all certified development partners.

AppVision PSIM $^{\text{TM}}$ is one of the most deployed PSIM systems globally, and offers unrivalled returns on investment due to its affordable pricing, but also due to its openness and network of support partners.

Perimeter protection of sites

- Infrared cameras
- Video analytics
- Physical fencing with sensors
- Virtual fencing & buried cable
- Under Vehicle Scanners
- Gate control

Video Surveillance

- Mix different brands of cameras & VMS using open architecture AppVision PSIM™
- Standard video cameras
- High resolution video cameras
- Long range cameras
- Infrared cameras with night viewing
- ANPR cameras

Door & access control

- Use open architecture ONVIF access controllers or proprietary systems brands
- ANPR system & Facial recognition integration as a virtual badge or with PACS

Audio systems / SIP

- Intercom integration with AppVision geolocating caller location on maps
- Public address system management and automated messaging
- SIP
- Public address

Automation system & lighting

 Link full automation systems such as BMS and lighting to security system trigger inputs. This means you can completely control systems using AppVision PSIM™ based on manual or automated commands from any security asset triggers

Radar system integration

- Sea facing radar system & integration with other assets, such as CCTV and incident handling.
- Track and trace objects, use friend and foe tags on screen
- CCTV
- LRIT system
- AIS

For more information, please visit: www.prysm-software.com. **SET**



Protecting state-of-theart technology at Singapore Polytechnic's School of Digital Media and Infocomm Technology

School of Digital Media and Infocomm Technology enlists Axis network cameras to safeguard its technology investments.

Mission

The School of Digital Media and Infocomm Technology (DMIT) at Singapore Polytechnic, one of Singapore's most prestigious tertiary education providers, has been in operation since 1980. The School aims to play an important role in the expanding digital ecosystem, by being a strong source of talent for the IDM (Interactive Digital Media) and ICT industries. To prepare students for the digital world, DMIT nurtures and develops students using a variety of channels such as innovative teaching approaches, inspiring learning spaces, immersive experiences, multidisciplinary projects leadership training programs.

Since DMIT is so focused on developing Singapore's generation of computer experts, many of its teaching rooms house the latest, state-of-the-art technology. For example, students working towards a Diploma in Infocomm Security Management are trained in a Cyber War Game Center to help build their skills in effective teamwork, resourcefulness and working under pressure. In addition to this game development centre, DMIT has a motion capture studio, a music and audio production suite



and a visual effects studio that make up just some of the high-tech facilities housed within the DMIT. On top of this, the school is home to about 950 Windows and Mac workstations and the associated peripherals.

With such a significant level of

investment in technology, it is critical that the school is secure at all times, not just to protect the assets of DMIT but also to ensure the safety of all staff and students working in the school with such high-value equipment.

"We have been most impressed





by the ease of use and the sheer simplicity of design. The cameras' remote focus feature is especially useful for us as it negates the need for fine-tuning and the time-intensive manual focusing of the cameras. This has allowed us to invest more in teaching which is our primary goal at DMIT." Mr. Mohammed Wazir Bin Tawil – DMIT Technical Support Officer.

Solution

DMIT enlisted the help of Seng Joo Hardware to develop a security solution to protect its key assets. One of Seng Joo's key recommendations was switching the School's surveillance cameras from its legacy analog CCTV cameras to an IP network-based surveillance solution. A digital security solution was befitting of a school with a reputation for being ahead of the curve digitally and technically.

After a thorough review of the school, the best camera locations were identified and a combination of AXIS Network Cameras were installed throughout the School's premises and teaching rooms. The Axis cameras were installed in high traffic areas, as well as in those areas, which are likely to generate significant interest from thieves. DMIT covers a significant amount of ground with three blocks, and three

to four levels. However, the Axis cameras are all Power over Ethernet, which means that a separate power source is not required, greatly simplifying the installation process.

DMIT is using AXIS Camera Station software to manage the footage gathered by the Axis cameras. This software program is a comprehensive video management tool that makes monitoring, recording and playback simple and easy to do on any PC. The installation of this system allows facilitators and admin staff with no IT training to manipulate the cameras as they wish. The School has also installed Axis illuminators to provide the cameras with enough light to provide a meaningful image.

Result

With the solution in place, the School can now monitor key areas, especially in some of the more technological advanced labs with the utmost accuracy and clarity. The greatest benefit of this particular system is the ability to view a clear







picture from anywhere in the world, providing there is an Internet connection. This gives administrators the peace of mind that their School is only a couple of clicks away, no matter where in the world they actually are.

Another benefit of the solution to DMIT is its ease-ofuse. The installation is truly a turnkey solution. Only the most basic training was required for the staff involved in the installation and maintenance of the solution. Other staff members who have the authority and necessity to view the footage are also able to do so without any indepth training or instruction, thanks to the AXIS Camera Station software.

Another string in the bow of the Axis camera solution, and of IP surveillance technology in general is the simple maintenance from a technical point of view. With the legacy analog solution, DMIT needed to

ensure there was enough space for tape to store the footage that was constantly being saved. With the IP surveillance system, the footage is stored digitally, either to hard drives on premise, locally on the cameras themselves, (Axis cameras are equipped with an SD card slot for local storage), or in the cloud.

The Axis installations have proven successful in that they have been a deterrent for would-be thieves and vandals. The cameras provide live and recorded images of the campus' hotspots and have been successful in preventing and identifying any would-be criminal activity. There has been a noticeable increase in confidence that security requirements at DMIT will be met as a direct result of this solution that has in turn boosted the School's reputation.

For more information, please visit: www.axis.com. == T

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Rare footage of beavers captured by Bosch cameras

Background

"Holland: Natuur in de Delta" is the second documentary of the producers of "De Nieuwe Wildernis". A tremendous cinema turnout of 700.000 people in 2013 led to winning the "golden calf" award in 2014, a Dutch film price in the category "Public's Choice Award". The movie shows nature reserves of the country and their inhabitants such as the beaver. The beaver finds himself in many different areas ranging from its lodge in the national park "Biesbosch"

which is in the south through the delta to the North Sea. The filming crew documented the different species and their stories. Sometimes they had to spend months at one location to get proper footage.

Challenge

Producers from EMS FILMS in Amsterdam used Bosch cameras for shooting the documentary "Holland -Natuur in de Delta" which appeared in Dutch cinemas in September 2015. However, the local conditions were not suitable for regular recording cameras. Therefore, Bosch Security Systems was contacted to provide an alternative solution. Due to the presence of the beavers, a huge filming crew being present was not favorable. Producer Ignas van Schaick from EMS FILMS said: "The shooting with the beavers was quite difficult because they are very timid and nocturnal."

Solution

They decided to use night sensing equipment by Bosch. The employees helped them to find a solution to







develop a sort of a mobile studio consisting of three DINION IP Starlight 8000 MP cameras and several Intelligent-IR illuminators from Bosch. They were then placed in the woods. Bosch's cameras proved their worth once again.

The outcome was outstanding. Even though cameras could not be moved for fear of scaring animals away, it was possible to record the whole scene. Details were carved out afterwards using the zoom feature. Even on a 20-by-8-meters-screen, the image was still very high-quality. A compact camera equipped with motion detection was utilized. It only starts recording when a beaver appears, sensitive enough not to do so when grass or water moved. This required Intelligent Video Analytics where it is possible to set parameters to trigger the motion detection.

Bosch cameras have a very high resolution of up to five megapixels. The footage is 2992 x 1680 pixel at a ratio of 16:9 and has a frame rate of 30 frames per second. This provides a perfect image with zooming options, even on big screens.

A special sensor technology and innovative solutions for image noise provide a film speed of 0.0121 lux at five megapixel in color and 0.00825 lux at a resolution

of 108op. This enables the DINION IP Starlight 8000 MP cameras from Bosch to depict images in color where other cameras only depict greyscale and greyscale where other cameras cannot depict anything at all. Difficult lighting conditions such as varying front and back lighting can be filtered by intelligent Auto Exposure. Intelligent Auto Exposure enables the Bosch camera to adapt to varying lighting conditions to catch the object in the best setting as possible.

As the devices were placed in the middle of the woods, it was important to use batteries and to keep the power consumption as low as possible. Here the energy-efficient products by Bosch came in handy. The cameras only require nine watts. Saving the footage also only uses little energy as it happens on a local SD-card. As the Bosch cameras provide clear, noise-free images at only 0.0121 lux due to the starlight-technology, the IR-illuminators from Bosch also spend very little energy, so the system could work all night with just one charge.

At the moment EMS FILMS are working with Bosch cameras on the next project of the series: "De Wilde Stad" which stars animals living in big cities like Amsterdam.

For more information, please visit: www.boschsecurity.com. == \tau



Dahua Technology Cameras Provide Winning Video Surveillance Solution for2016 Rio Summer Olympics

hen the Olympic Games come to town, the welfare of people and property are of paramount importance in both the planning process and during the event. The 2016 Summer Olympics in Rio de Janeiro draws 500,000 foreign visitors and sells \$7.5 million tickets to people who will watch 10,500 athletes compete. There are 85,000 security personnel on hand, and the overall budget for security totals \$895 million.*

Challenge

To ensure a secure environment for the 2016 Summer Olympic Games, Rio de Janeiro government officials sought a comprehensive video surveillance solution to monitor a wide expanse of areas inside and around the Olympic Park in Rio de Janeiro—Copacabana, Maracanã, Deodoro, and Barra da Tijuca. Other venues that required monitoring included the Olympic Stadium, Sambódromo, Maracanãzinho Olympic Gentre BMX, Beach Volleyball Arena, Olympic Village and Paralympic, as well as the surrounding roads that are for exclusive use by the Olympic officials, athletes, and official press.

The Olympics security project required cameras that could produce high definition (HD) images and be capable of supporting intelligent video analytics, which is key when monitoring events with a high flow of foot traffic.

Solution

Rio de Janeiro government officials selected Dahua Technology, a high-value, total security solutions provider with the second largest market share worldwide (according to research firm IHS), because it fulfilled all bidding requirements and was regarded as the best solution that offered the highest performance.

Dahua provided 1823pcs high-resolution IP, dome, and 30x optical zoom pan-tilt-zoom (PTZ) cameras for the







project. The Dahua cameras were installed in strategic locations where security personnel could observe the Olympic complex and its environments. The video feed was transmitted through a private network to the central





monitoring stations inside Olympic Park and the Rio de Janeiro Operation Center, where people and objects could clearly be identified to help safeguard athletes and visitors. The Dahua total security solution assisted authorities in identifying medical emergencies, vandalism, and other situations where a response team was required.

The video surveillance system was designed to capture high quality HD images. The cameras have advanced technology to support embedded intelligence functions, such as sending an alert to central monitoring when it detects abandoned or missing objects, unauthorized entry into a prohibited area, and other defined activities. The cameras also supported multi-streaming that allows images to be recorded and monitored in real-time high resolution, so that operators had a clear and well-defined view of both live and recorded footage.

Benefits

In addition to its video surveillance products, Dahua also contributed to the 2016 Rio Olympics security project by providing full technical and commercial support that included training operators and managing settings adjustments. Dahua also coordinated a partnership between the integrators and the Rio de Janeiro government to provide comprehensive integration between the cameras and third-party platforms deployed in this project.

"The Dahua Technology products were amazing during the entire operation. Their image quality is much better when compared to other brands," said Rio de Janeiro City Hall Security Officer Thompson Peixoto. "We look forward to other opportunities to cooperate with Dahua in the future."

*Source: http://www.people.com/article/rio-2016-summer-olympics-by-the-numbers-facts

For more information, please visit: www.dahuasecurity.com. == \tau



Roche Pharmaceutical Turkey HQ secured by Rosslare

Challenge

Roche Mustahzarlari Sanayi AS operates as a subsidiary of Roche Holding AG. Roche Mustahzarlari is a new HQ and management facility at Istanbul, Turkey. The new management facility designed it to increase employee productivity.

The facility, which has a floor space of 2,000 m², includes meeting rooms, free activity areas, common activity areas and offices, in 3 floor buildings. The project was valued at approximately \$8 million.

Roche was facing a huge challenge due to the sensitivity of their pharmaceutical product marketing, a diverse level of employee attendance, access control permissions, and parking management. They were looking for a tailor-made access control solution with sophisticated readers. They also needed a company with flexibility and a track record of providing good service.







Solution

Rosslare's solution included the following hardware:

- AC-825IP advanced scalablenetworked access platform controllers including R/S/D/P-805 expansion panels per each network of controllers
- 2 AY-U900 UHF Long-Range Reader
- 5 AY-K12
- 1 AYCB7661
- 48 IP cameras

In addition, the solution used the following software:

- ViTraxTM PC DVR/surveillance client/server management software,
- AxTraxNGTM Server-Client Access Control management software with new sophisticated reporting module

The engineering design plan aimed to achieve 3 major goals:

- 1. To supply the most secure access control
- 2. Centrally manage all security application CCTV, Access, Intruder
- 3. To reduce expenses and save electricity

The decision was to integrate magnetic sensors with sophisticated readers to monitor the management building's access control, along with advanced UHF readers intended to manage car-parking concerns. Everything was connected to the AC-825IP networked access controllers, with AxTraxNG providing advanced settings to meet customer demands.

Result

With a single credential, the employees can now park in the parking lot and gain access to





various areas according to their specific permissions.

With regard to security monitoring on a real-time basis, the system features various surveillance camera options to monitor sensitive areas and enable/disable doors. The second goal of the solution was saving electricity power by monitoring human presence

to shutdown lights and airconditioning when not needed.

The system supplies the flexibility that Roche was looking for in the best response time without jeopardizing high security requirements for all zones at all times.

For more information, please visit: www.rosslaresecurity.com. **set**



Boschs's Survey: smart home technologies are still completely underestimated

Everything that a smart home can do at IFA 2016

- Survey conducted by Bosch and Twitter in six different countries on the preferences for smart homes
- Analysis by country, age and gender
- A majority underestimates the current possibilities of a smart home
- By country, the Germans are the least confident in what a smart home can do, but almost one in ten Germans surveyed has already linked his home or plans to do so
- Energy savings, automatic processes and security are the most convincing arguments worldwide
- Data protection of great importance for a third of the respondents

Stuttgart – Bosch has conducted a survey on the topic of smart homes together with Twitter in Germany, France, Great Britain, Austria, Spain and the US. The results show that an intelligently connected home can do more today than the majority of respondents considered possible.

The French have the greatest confidence in the connected home

A smart home helps make our everyday lives more convenient, saves energy and money and protects the home better. And yet many Twitter users are not yet aware of what a connected home is already capable of doing. For instance, while two thirds of the respondents know that the smart home can turn the lights off automatically when they leave the house, only 22 percent can imagine that the oven can already suggest the perfect recipes. By country comparison, it is worth noting that Twitter users from France are most confident of what smart home technology can

do compared to the British, the Americans and the Austrians, for example. Germans and Spaniards, on the other hand, consider much of what is already possible today to be a vision for the future.

It is particularly striking that especially the 25 to 34-year olds come closest to the reality with their assessments. The fact that awareness of the possibilities decreases with age is not as surprising as the fact that many digital natives do not know what functions are possible today. Especially for the 16 to 24 yearolds who don't even know a world without the Internet, networking at home is still surprisingly unknown. The reason for this could be the lack of relevance that home topics have for this age group. This reasoning does not apply for women, however, who were generally more cautious about what a smart home can do in their assessments than men were. Furthermore, only 50 percent of the surveyed are aware that today's smart home systems

are interoperable, meaning that

different devices can communicate with each other, even independent of the manufacturers.

Saving energy worldwide an important selling point

The smart home takes care of routine tasks automatically, enables control far away from home and thus, conveys a reassuring feeling. Nevertheless, the respondents were even more convinced by the potential for saving energy, when the heating switches off automatically as soon as the windows are opened, for example. The Spanish, French and English, in particular, seem to be very interested in saving money. Between 71 and 75 percent considered saving energy a convincing argument in the survey. While this was also the most popular answer the Germans surveyed gave, they come in last place here by country comparison with 59 percent of the mentions. This is quite surprising because the Germans are normally known for their environmental consciousness. Presumably, more financial than



ecological aspects make energy saving possibilities so interesting in countries like Spain, France and England.

Going on vacation without worrying

Reassurance and security have been placed in second and third place overall by 59 and 58 percent of the respondents. A smart home that automatically sounds an alarm when an intruder breaks in and warns the residents by sending a push message to their smartphones is just as impressive as the idea of being able to look after things at any time via a connected camera. Security plays a particularly important role for women. While they are generally less convinced of all of the other arguments than men, the situation here is exactly the opposite. Only a third of those surveyed find it especially convenient to be able to brew the cappuccino already while they are still lying in bed. This is where the French set the tone: 42 percent greatly appreciate being able to find their café au lait ready when they walk into the kitchen.

Always on the move: the British and the Americans want to control their home "on the road"

The connected home has a place in everyday life for the British and the Americans. At least this is the case if you ask them in what situations they would want to be able to control their smart home while they are on the road. 60 percent of the British and Americans feel this desire, when they are traveling by train or car, for example. Among the Spaniards, Germans and Austrians, this figure is only about half as high, but with the French, it is at least 45 percent. The country comparison is quite similar when respondents are in a hurry. Incidentally, being in a hurry is a situation in which mostly women believe they can reap the benefits of a smart home. They have this in common with the youngest respondents (16 to 24 years), who also want a smart home, particularly while they are lying on the sofa. The idea of being able to have access to your home while you are on vacation has a certain fascination across countries, ages and genders that increases with age, whether it's to look after things or to turn up the heat before returning home.

Many suspect high costs, data protection a high priority

When asked about the reasons why they have not yet linked their home, more than half of the respondents cited high initial costs, whereby this factor becomes less important with age. Especially the Spaniards (70 percent) and the French (68 percent) say that the technology is too expensive for them. Data protection,

a topic that Bosch is working closely on, is a major concern for a third of the respondents. In fact, all smart home solutions from Bosch meet the highest security standards. Every user can decide for himself whether his data should remain inside the house or be loaded into the cloud for certain services.

31 percent of those surveyed have never even thought about a connected home before. This is quite surprising, especially in view of the many different areas in which a smart home can be quite useful for its inhabitants. But at least around one in ten people in Germany and Austria have already allowed themselves to be convinced, and thus already live in a connected home or at least plan to do so, more than in all other countries that participated in the survey.

The Internet is the number one source of information

Two out of three of the Twitter users surveyed indicated that they would visit the manufacturers' and dealers' websites before purchasing smart home applications. 42 percent rely on blogs and forums. The Internet is thus clearly the most important source of information. Shops and brick-and-mortar retailers only come in third place at 35 percent. The stationary trade plays a subordinate role in the UK and the US, in particular. Only half as many respondents seek information here as in the other countries. It is also worth mentioning that the very youngest among those surveyed check more offline and would go to a store.

Bosch presented solutions for the smart home at IFA in Berlin

Bosch offers smart home solutions for many different areas of the home. The Bosch Smart Home App allows you to control and monitor the lighting, heating, smoke and motion detectors by tablet or smartphone. The Bosch Smart Home System works interoperable: the devices are connected via the Smart Home Controller and can talk to each other. This means you can always be sure that the windows and doors are closed, the heating and other systems are shut off and that the alarm system is activated when you leave your home. The Bosch Smart Home system also ensures that the heating is turned off when a window is open. At IFA 2016, Bosch presented new products and showed the integration of large household appliances with the system. The functions of the washing machine, dryer and dishwasher can be operated directly via the Bosch Smart Home App.

For more information, please visit: www.boschsecurity.com. *≡≡⊤*



FIBARO Home Automation

IBARO is a wireless building management system manufactured by FIBAR Group, which is a member of Z-wave Alliance. Z-Wave Alliance itself is a formal association that promotes the Z-Wave protocol and the continued interoperability of any device that utilises Z-Wave.

Currently, there are more than 1300 interoperable Z-Wave devices and FIBARO is a leading brand in the Z-wave market. FIBARO system is more than just an intelligent installation. At present, it is the most perfect building wireless solution available in the world.

The main vision of the company was to create perfect product of building automation. We aimed to create a standard of future, so that the customer will be able to build one of the largest ecosystem, enabling the integration of all equipment and solutions in one intelligent network managed by a single system (FIBARO) and one device (smartphone).

Essentially, this means full and permanent control over the house through your mobile device. FIBARO allows customers to control not only the household appliances, but also the lighting, temperature level, blinds, awnings, gates and wickets, alarm and monitoring system.

The Home Automation System can be managed via any mobile device. Specific scenes are also automatically activated by the system based on the information collected by sensors and GPS.

Due to the fact that this is all about wireless solutions, the installation of the system is completely noninvasive, faster and financially less aggravating.

The company has passion to create equipment, and focus on every detail to give you the smallest and most sophisticated equipment available in whole world. The system is introduced to many projects focusing particularly on energy, telecommunications and distribution companies globally.

Besides Z-Wave, FIBARO gateway controller is also able to communicate with other non-Z-Wave devices through TCP/IP, e.g. IP camera, wireless sound system, etc.

L3 Homeation Pte Ltd, the distributor for FIBARO products in Singapore, promotes the system to meet the need of various groups and projects. Among the various projects, Cairnhill Nine by CapitaLand is the first private condo in Singapore to introduce FIBARO system in every unit in the project. The developer has smartly introduced FIBARO gateway to ingrate with Yale Z-Wave Lock and an IP Camera to provide an effective and yet affordable security system at the front door entrance- all without sacrificing the convenience of tenants.

The system aids the homeowner to monitor the movement in the door front and unlock the door for the approved persons from anywhere, at any time, using his or her smart phone. The system has



basically transcended the bounds of proximity and time. Homeowners will also be notified of illegal entry when security mode is turned on. Homeowners are also able to enhance the system with other add ons. Namely, Wireless Sirens, lighting controls, motion sensors etc.

Besides this, other features of the FIBARO system include:

- Scalability
- Easy to setup
- Able to be monitored and controlled remotely
- Integrate with Smart Digital Lock, such as Yale lock/unlock from smart phone
- Integrate with IP camera take snap shots when necessary
- Product compact and design is attractive - easy to be placed at suitable location





- Sensor battery powered and last up to 1 year or more
- Sensor can be configured remotely to meet various needs
- Security system can be armed remotely when required
- Various sensors to meet varying requirement, motion sensor, door sensor, smoke sensor, water sensor, etc. Universal sensor to integrate other special sensors
- Able to control lighting control, siren control to enhance to security feature

For more information, please visit: www.fibaro.com. ==

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Rapid Expansion Projected for Smart Home Devices, IHS Markit Says

Smart home device market rising at a CAGR of 60 percent to reach 477 million units in 2020 he smart home market continues to expand, with 47 million connected smart home devices shipped globally in 2015. The market is projected to broaden at a compound annual growth rate of 60 percent, reaching 477 million devices in 2020, according to IHS Markit (Nasdaq: INFO), a world leader in critical information, analytics and solutions.

The American region accounted for 62 percent of global shipments in 2015; however, Asia-Pacific will gain significant share over the next four years, coming into parity with the American market in 2020. The EMEA region will remain flat, holding steady at 20 percent of the global market for smart devices. This rapid growth will be primarily attributed to appliances and air conditioners, according to recent analysis from the IHS Markit Smart Home Intelligence Service.

"The smart home is organized into the following five primary categories: safety and security, climate control, consumer electronics, energy and water control, and lighting and controls," said Blake Kozak, principal analyst, IHS Markit. "The challenge is delivering all five categories on a single platform where the devices will communicate in an effective mesh network, rather than act isolated and autonomous processes. Bringing categories together effectively has been seen as mostly confined to professionally installed systems,

but 'do-it-yourself' offerings are improving quickly."

While automation devices – except safety and security devices – accounted for 60 percent of the global market in 2015, they will grow to comprise 80 percent of the market in 2020. Moreover, do-it-yourself (DIY) devices represented about 20 percent of units shipped globally in 2015. By 2020, DIY and hybrid system types will account for nearly 60 percent of the market, leaving a significant challenge for purely professional installation business models.

The automation devices that will contribute most to market growth are plugs and switches, appliances, air conditioners and lighting. For these four types of devices, global annual shipments are projected to increase from 15 million in 2015 to 300 million in 2020. In terms of total smart home penetration, IHS Markit estimates that while just 6 percent of North American homes had a smart home system in 2012, 28 percent will have one installed in 2020.

"The possibilities of the smart home are seemingly endless; however, a tightly controlled ecosystem is a necessity for devices to work well together," Kozak said. "Just because a product is listed as ZigBee, does not mean it will work with every hub that accepts ZigBee. Although the device may function, features may be limited and functionality is not guaranteed." ==





Using Advanced Search Video Analytics in Buildings and Critical Facilities

ne of the most important and exciting developments in the field of video analytics in recent years, has been the emergence of advanced search. Today, it is being used by organisations for real-time (and near real-time) incident management, as well as post event investigation, in order to safeguard people, buildings, critical facilities and infrastructure.

Put simply, advanced search provides tools (such as Suspect Search) to perform rapid forensic searches across extremely large volumes of recorded and live surveillance video, in order to track, locate and pinpoint missing people, suspicious persons and even objects, during time-critical scenarios. It can rapidly narrow down data from 100s or 1000s of camera feeds in a matter of minutes, and often in seconds. What is more, it can be deployed irrespective of the cameras being used, meaning that no matter what type (IP or analogue), vendor, model, resolution or lighting is involved, a search will produce good quality, usable results.

In a post-event scenario, investigations can be extremely resource consuming, when using video as a main source of data. In fact, for a major incident it can take many hundreds of man hours manually reviewing footage. In this instance, the ability to automate much of the process saves huge amounts of time and resource, improving the likelihood of a successful resolution.

In both real-time and post incident cases, the system works by continuously indexing every person that passes by every camera on the network. As a result, when an operator needs to conduct a search they simply need to upload a photo, use an existing image from a camera, or create an 'avatar' based upon a written or verbal description of the person that needs to be located. This image is then used to filter 95 percent of the images and present the operator with instances where people matching the description appear on camera.

What is more, because advanced search also provides geo-spatial awareness, it is able to retrace the person's movements across cameras, pinpointing the suspect's current or last known location. The operator can then watch the feed from the live camera (review the route the person took and any significant actions they made) and take the necessary course of action themselves. Furthermore, because all images, related video and locations associated with each search are digitally stamped they can be saved or shared with external agencies for investigation and prosecution.

One of the early adopters of advanced search has been the San Antonio Military Medical Center (SAMMC). It is the largest Department of Defense Military Medical facility and Level I Trauma and Burn Research Center in the U.S., with is an expansive medical center, covering 2.1 million square feet. Its emergency room processes more than 5,700 patients per month and serves hundreds of thousands of U.S. service members and their families. SAMMC has integrated advanced search with its existing video management system (VMS) and is using it should instances arise where it needs to track and locate



missing patients or suspicious persons, to help ensure ongoing security and safety at the facility.

One application is integration with an existing system to assist in the prevention of infant abduction. The system, which combines wireless radio frequency technology, RFID bracelets, and video surveillance, automatically triggers an alarm and streaming video if an infant is removed from a designated area. Advanced search adds another layer of protection against such incidents by providing a means to visually identify and track the subsequent movement of a suspected abductor within minutes of an alert, before the suspect has been able to leave hospital grounds.

As well as locating a missing child, advanced search can also be used to aid investigations in a number of time-critical scenarios—for example, searching for an active shooter, intruder, or other criminal suspect; identifying the owner of unattended or suspicious baggage; or finding the perpetrator of a checkpoint breach at SAMMC entrances.

Advanced search is one of the most significant developments in real-time video analytics, and should be a serious consideration for any organisation that operates a large surveillance camera network across single or multiple estates.

For more information, please visit: www.qognify.com. ==T



AN INTERVIEW WITH

EIRIK BAKKE, GLOBAL SALES DIRECTOR OF EVOLIS

How do you think the presence of Evolis in Asia has impacted the Asian security market?

Evolis entered the Asian market in October 2006. Back then we were new and only present in a few countries. We have since built our business to become one of the leading providers of secure card printing solutions with an extensive network of distributors and value-added resellers. We have also established partnerships with major active System Integrators. Today the "Evolis" brand is present in almost every Asian country and strongly associated with "best in class" security solutions. Our products are also used to issue millions of secure access control badges and ID cards each year.

What future challenges do you think the Asian Market is due to face in coming years?

Globally, given the concerns of terrorism, crime and fraud, Governments and corporations continue to look for enhanced security to protect individuals and assets. We believe that this will continue to generate demand for increasingly sophisticated and secure access control solutions. Methods of processing, storing and accessing data will evolve, challenging product and service providers to constantly develop new technologies and features. Whilst offering many new opportunities, it also provides an avenue for diversification from traditional security products such as digital or mobile credentials that are now becoming more common as a result of the capabilities of smartphones and wearables.



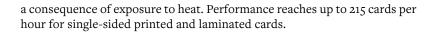
Mr V.M Gandhi, managing director of M-Tech Innovations, has said that selecting Evolis is a natural inclination due to its reliability. As such, how do you suppose Evolis can add value to the current status of access control products in the security market?

The reliability of our products has been a key attribute that has enabled us to become the world's leading provider of decentralized and secure card printer solutions. In addition to this, another pillar of our success has been our ability to innovate. We work closely with our partners and end-customers to better understand and anticipate future trends and market requirements so as to define development priorities and product roadmaps. We are currently in a good position to propose new and creative solutions whereby we do not only add value to our customers but also stand differentiated from our competitors in terms of our products and market approach.

Tell us more about the features of your latest product – the new Card Lamination Module and its advantages for governmental and corporate cards.

The new lamination module has been designed to easily connect to the Evolis PRIMACY card printer through infrared connectivity. This creates a single system for encoding (from magnetic stripes to RFID chips), printing and laminating plastic cards. There is also no need for any special software to drive the lamination module.

Dual-sided lamination is provided as a standard feature through a flip over. Management/monitoring of the unit is possible using the Evolis Premium Suite interface. There is also a card-flattening device to counter card bending as



A wide choice of lamination films, with or without holograms, rounds up this product offer. Entirely customized laminates that include unique and highly secure hologram patterns can be developed for any specific requirement. Hence, it is possible to obtain maximum durability and a very high level of security. The laminator module comes with 3 year warranty. As such, this is a very cost effective solution compared to offerings from other manufacturers.

Advantages for governments and corporations:

- Small footprint
- Cost effective
- Highly versatile
- Simple and reliable, reducing the need for aftersales support and maintenance

The new card lamination module can either be ordered together with the PRIMACY card printer as a complete Plug and Play secure issuance solution (allowing encoding, printing and laminating in one single pass), or as an add-on option for customers who already have a PRIMACY card printer.

We have heard that Evolis has evolved from being a card printer manufacturer to an ID card solutions provider. Does Evolis see itself expanding in this field in coming years?

During the first ten years, we were focused primarily on developing and strengthening our desktop card personalization portfolio. However, as the market matured and became more competitive, we identified the need to diversify our offer to other products and services related to our industry. In recent years, we went through a series of acquisitions that included CardPresso- a specialized card designer software company, as well as SOGEDEX- a leading provider of card-related accessories such as badge holders, lanyards and other products. In addition, we also started integrating other products complementary to our core product portfolio. These include signature pads to capture secured digital signatures that are widely used in insurance, banking, finance and retail sectors.

In coming years, we will continue our diversification strategy to widen our portfolio to address the access control and security market segments.

How do you suppose Evolis' manufacturing capabilities sets it apart from others in the same industry?

Evolis has chosen not to delocalize its production to other countries or regions. All our products are developed and manufactured in Angers, France- that is also the location of our HQ. By keeping all critical functions under one roof, we have a unique capability to adapt our products to specific and technically complex requirements as well as respond to exceptional volume requirements related to projects within Government, Banking and Retail applications.

Our reactivity and flexibility coupled with our very competitive and attractive product offers are some of the main reasons why many solution providers and end customers prefer Evolis as their choice of vendor.

For more information, please visit: www.evolis.com. **≡**≡⊤



AN INTERVIEW WITH

KENNETH HUNE PETERSON, CHIEF SALES & MARKETING OFFICER AND BENJAMIN LOW, VICE PRESIDENT SALES ASIA PACIFIC JAPAN OF MILESTONE

Milestone has been growing exponentially in different geographical regions. What would you say are the causes for this rapid growth?

With the advent of digital video which can be analysed, transformed, and modified to customer needs, companies are looking to video surveillance solutions to protect their people and assets and to optimize their business performance.

Milestone has a presence in 3 regions – APAC, EMEA and the Americas. There are different elements to the aspect of our growth, but most of it can be attributed to the open platform community. We have a total of 1200 solution partners that have programmed into our open platform.

We see a lot of requests for solutions now all over the world, as people do not want to buy individual parts – cameras, software and analytics – separately anymore. Instead, they have a problem, and instead seek a holistic solution through our open platform which caters for those solutions in a very neat way whereby the foundation is supplied by us.

What is the global strategy of the company with respect to vertical market penetration, partnerships and Sls?

Our main strategy is to leverage our greatest strength – our community. While our competitors often have to choose a particular focus, we are able to create solutions for all verticals, from enterprise resource management, logistics, environmental protection and also sales and marketing solutions or CRM applications.

All that is made possible because of our partners. Although we have existing vertical strategies, it is through our community that we have a very strong offering for each of the different verticals via the integration with our solution partners.



Tell us more about Milestones partner community, and how it is beneficial to Sls and end users.

Through our partner community, our customers will experience unmatched video solution innovation and value creation for their businesses.

In the software community, the way our software is coded is unique, in that we have a foundation where others can build on. We have built a SDK which users all around the world can use as a base to code from, which is then automatically integrated into our system.

In the hardware community, storage providers such as Dell, HP, EMC and Oracle make critical storage for video surveillance. We work with that part of the community to optimise picture storage in an efficient and fast way.

There is cooperation amongst all the different solution ecosystem partners that we have. This is our strength, as we can evaluate each project and decide the best fits for each customer. Eventually, we will build a market place whereby consumers can go to our website and pick and choose different solutions based on the pitches of the companies on our platform.

How is Milestone preparing for the Internet of Things and big data?

We believe Milestone will play a central role in IoT, as data is the future, and the power of video is tremendous. In the future, everything will be connected through smart devices with sensors and cameras, and we will aid in recording and analysis as well as conclusion finding based on video data. We make clear channels for the information to be directed to the right places, as otherwise, information without direction is obsolete- like a world without roads. Many of our partners have deployed advanced integrations of security systems for their customers including many different types of sensors. These systems may not be cloud based but in reality they offer the value intended with IoT. That value is about connectivity and information sharing between many different types of sensors, devices and systems to provide value added security services and business intelligence.

What are your plans for Singapore and this region.

We see a tremendous potential in the market for Singapore. There are strong opportunities that we see in the various verticals – government, defence, commercial sectors, customers etc. From a growth perspective, we see strong growth in Singapore on a year-toyear basis.

In Southeast Asia, we do have regional and sales managers in the region to cover the market. There is a very strong demand for security surveillance all over the region. As the region looks to tighten up security, customers want good quality products that are able to be stable, and future-proof, which our VMS open architecture also provides, as our customers are not tied to any hardware and have the choice to change them at a later stage in the business cycle.

That being said, the demand in the Asia Pacific region is not just for security. It's also about traditional security needs expanding into commercialised analytics of video as it is an investment as well. People naturally want return investments on it in traditional security use, which is sometimes hard to measure. However, in commercial use, it is much easier to make a case for the return investment. The business case for the individual project will get much stronger beyond security.

What impact do you think Milestone's presence will have on the Asian security market?

I see the quality of our software and openness of technology raising the standards of customers' expectations. Its no longer about what is cheapest but about what is good enough to protect current and future investments. From a market perspective, I think we will be able to influence how customers want to invest in security and business technologies. The community of partners will enter the market and open customers' eyes. They will be able to see the new interesting possibilities of what security can do for them.

For instance, we can work with refrigerator manufacturers to put a small camera in the fridge. When someone goes to the supermarket, he/she can check their fridge via an app on their phone to see what they need to buy. Going further, we can connect it to Google Maps so the application knows the customer is going into a supermarket, and deliver a shopping list to the user, there and then.

What challenges do you think the Asian Security market will face in coming years?

Adoption of IP markets is still lagging in the Asian markets compared to the more mature economies, although we do expect to see a transformation in the next few years. However, the challenge lies in the adoption and use of IP systems. The transition from traditional, analogue technologies to a more IP based infrastructure will pose a challenge. In addition, the broadband infrastructure also plays a part. Many Asian countries do not have as robust a broadband service as Singapore has, which might put a dampener on the speed at which this change over to the newer technologies and infrastructure might take place.

Asian countries are also rapidly evolving. In that sense, challenges seem more like opportunities. There is not a lot of historical baggage from Asian customers. Thus, they tend to want to test and try new things to keep growing. This is beneficial for our technologies, our community partners and everybody else as well.

What message would you like to give our readers?

Many of the readers know Milestone as one of the top VMSes in the world. We have strong, robust and stable products. More importantly, we have the best solution partners to tap on. We have a strong ecosystem of channels of distributors and resellers to work with and fall back on with regard to implementation and services. We are serious about the business and market and we are investing ahead of the curve. We provide flexibility and freedom of choice to customers. We are here to support customers and will be there for their growth and expansion.

For more information, please visit: www.milestonesys.com. =



TOP 5 TRENDS INSECURE IDENIES IDENIES

he integration of wearable technology into our society is bigger than we have ever imagined. The global wearable technology market alone is predicated to reach US\$ 170.91 billion by 2025. However, concerns on data privacy, high prices and limited battery life of the mobile devices still exist.

Based on customer insights into key market developments across enterprise, healthcare, banking and government markets, below are some key observations from HID Global that focus on mobility, the user experience, connected identities, privacy and the Internet of Things:



By Alex Tan, Director of Sales,
Physical Access Control System,
HID Global, ASEAN





Trend 1: Users continue to demand the ultimate "all in one" mobile experience

With the expansion of digital lifestyles, customers are demanding the ultimate "always connected", secure user experience. Continual advancements in technology will see a new, secure identify lifestyle built around convenience and the ubiquity of ever-present mobile devices.

Case in point: in a recent deployment at the CityPoint building in London, security guards are now able use their smartphones as NFC readers. With a tap of their phone to RFID tags, guards can check keys in and out, and prove presence at shift checkpoints using their smartphones. Smartphones have become the epicentre of connectivity and are now required to serve every purpose, from a credential verification machine to a general-purpose reader.

Trend 2: A better, more secure user experience

Users are also demanding easily accessible but more secure digital identities to access on-the-go services and applications quickly and easily. The demand for a better user experience has grown to one of the top two most important drivers for deploying mobile access control over the next three years, according to the Frost & Sullivan Asia-Pacific study.

Biometrics seems to be the solution, continuing to combine security and convenience in today's changing landscape. In Brazil alone, four of the top five financial institutions have used biometric technology to process an estimated two billion trusted ATM transactions annually. In Asia-Pacific, government projects in APAC region and the increasing non-cash transactions provide tremendous opportunities for the growth of the smart cards and fingerprint sensors market, which is expected to reach USD 8.85 Billion by 2022.

Trend 3: Adding wearables to the device ecosystem increases the need for trusted digital identities across increasingly connected environments

The growing wearable industry and use of sensors for IoT-based solutions will drive employee productivity, asset tracking, energy management and employee safety.

These developments make digital interactions more personal, contextual and valuable, and will pave the way for future innovations in wearables to connect seamlessly with smart facilities.

Trend 4: Demand for embedded security and privacy solutions

Gartner forecasts that 5.5 million new "things" are getting connected every day in 2016, increasing the need for embedded security and privacy technology across the payments, transportation, industrial, consumer and healthcare markets. In the earlier CityPoint example, this "Security of Things" goal was achieved by producing RFID tags which connected easily with mobile devices.

Biometrics will still play a pivotal role in privacy protection for an increasingly connected world. Intelligent encryption-enabled and tamper-resistant fingerprint devices to more effectively address these security challenges will only grow.

Trend 5: Security policies and best practices will continue to improve as technology advances

The security industry will sharpen its focus on what technologies should be deployed and how, for instance, the first U.S. driver licenses on mobile phones will be used to unify credential management systems. This enables organizations to address both facility and information security from a more holistic perspective.

Rather than focusing on developing technology solutions to prevent risks, the industry should look at adopting industry best practices to strengthen the overall security ecosystem. Such security best practices and policies remain important for virtually any organization.

For more information, please visit: www.hidglobal.com. =

Wearable Technology Market to 2025 - Global Analysis and Forecasts by Products and Applications. The Insight Partners. 2016

² Fingerprint Sensors Market by Type (Swipe, Area & Touch), Technology (Capacitive, Thermal, Optical), Application (Mobile Devices, Travel & Immigration, Government, Military & Defense, Banking & Finance) and Geography - Global Forecast to 2022. Markets and Markets. 2016



Video surveillance in office environments: A Balancing Act







Addressing privacy concerns

Office managers should be very forthcoming from the outset with details on how long footage is stored, who has access to the recorded material and under what conditions. This open communication is crucial in building trust with the office staff and will alleviate initial discomfort to a large degree.

For office environments where the general public is not present, security concerns can include after hours theft of IT equipment, cases of office rage, sexual harassment and bullying as well as access control to prevent theft of confidential company information. While most office staff will understand that areas such as the reception desk, fire exits and hallways are monitored by cameras, having these cameras directed at their cubicles and desks will be taking it one step too far for most.

An open and transparent dialog is crucial to be able to effectively address staff concerns. There are ranges of

solutions, which can be offered to this end. Perhaps the cameras are kept inactive during office hours and go live only when the cleaners come in at night. Maybe all footage is encrypted by default and can only be accessed if an actual incident has occurred and the staff members concerned agree to the material being reviewed.

If office workers feel their concerns are heard and addressed they will see a network surveillance rollout in their office environment not as an intrusion to their privacy, not as another means of monitoring their desk presence but as added security which should be the sole motive of any such measure taken by an office manager.

Meeting data protection requirements

With next generation technology such as IP-based network video cameras, office managers can meet the data protection requirements set by current legislation and are able to address employee concerns by encrypting recordings and enabling only password-protected access to the video footage.

Network cameras are digital and have replaced older analog CCTV systems. They can be managed and powered via the office's existing Ethernet network (LAN) and therefore mounted with little effort as no extra power or video cables need to be laid.

Network cameras are smart devices. Small installations of up to 10 network cameras can be laid out very cost-efficiently by storing video footage and running video management software on the cameras themselves, no longer requiring a dedicated storage device and a dedicated desktop PC to manage the system.

Through an open dialog with employees, office managers can find solutions that address their business needs and cater to the privacy concerns of staff. It may be a balancing act but the new digital surveillance technology allows for full flexibility in setup. Whether encryption, password protection or after hours only recording is deployed, there is plenty of middle ground to make today's office environments more secure. \blacksquare









THE INTERNET OF THINGS AND PHYSICAL SECURITY









By Per Björkdahl, ONVIF Steering Committee Chair

he Internet of Things (IoT) is a hot topic, even though there is healthy debate on what it exactly is. Discussions on IoT are often about how it might affect future technologies, product development and sales. Others say that an Internet of things already exists, made up by the integrations of mobile, network and web-based applications.

Many also have serious security concerns about the information exchanged when new access points are communications that leave the safety of a well-secured and finite network. Early IoT devices are already facing criticism for their vulnerabilities and their potential for poor security practices, covert data collection, loss of control of devices and invasions of privacy.

The physical security community's discussion of IoT is somewhat different from those of other industries. Our business is securing things, people and information and we make assets safe using a combination of physical barriers and technological tools. The integrity of the security we provide as an industry should not be compromised for IoT. Businesses, governments and people rely on us to protect what is important and we must continue to maintain the high standards that currently exist in our industry today.

Many predict standards not only drive IoT, but will be the lynch pin to hold it together and make it a reality. Several alliances have already formed to work on automation and communication protocols to prepare for an increase in

(machine-to-machine) communications and the broader IoT. ONVIF's standards were originally created to take usability to a higher level, giving end users the freedom to pick and choose technology from different brands without sacrificing functionality. Similarly, IoT will require physical security manufacturers and developers to work together in establishing baseline standards that allow physical security systems to work with devices beyond the confines of our industry.

The Internet of Things cannot be ignored, despite its mix of potential boons and possible weaknesses. Verizon, in its 2015 State of the Market IoT report, predicts that 10 years from now, organizations that use IoT heavily will likely be up to 10 percent more profitable, with data showing 204 percent growth in the number of IoT connections in the manufacturing sector. IoT has moved from a conceptual state to a budding reality, with some calling IoT the next phase of the industrial revolution. IoT will become a reality in the physical security industry, of this we can be assured, whether the industry is prepared or not.

The challenge for our industry, of course, will be to provide increased operability and ease of use for end users without losing the integrity of the security that we offer as an industry. We must determine how to best continue our job of protecting valuable assets while providing end users with the functionality, ease of use and interoperability they expect, balancing IoT's strengths with its weaknesses in our development of products and standards.





he Internet of Things (IoT) is revolutionizing the way the world operates by connecting more smart devices and sharing the information they produce to improve existing business models and enable new ones. Nowhere is this more evident than in the industrial arena, where experts estimate the economic impact of the Industrial Internet of Things (IIoT) to reach \$11.1 trillion by the year 2025.

With the IIoT comes more devices, more data, and more interconnections with IT and the Internet. All of these factors make industrial cybersecurity, which is already important, even more so. The interconnection between networks and external devices brings about new threats from all angles and in many forms. Not only in the form of a larger "threat surface" for external attack, but also an

increased opportunity for device failures, software bugs or user error – all of which can greatly, and negatively, impact the operation of a system.

Firewalls are essential for ensuring network security and increasing system robustness and resiliency. No security model is complete without them. Just like the diverse range of devices found across an IIoT network, firewalls come in many different forms, not only in terms of hardware features and industry approvals but also with different filtering capabilities. While a firewall may sound like a single type of device, they are actually a diverse collection of devices – which leaves you with the task of determining which type of firewall is best suited for each portion of your application or environment.





So, what are firewalls?

Firewalls protect networks and devices, such as industrial PCs, control systems and cameras, from unauthorized access by preventing network traffic to or from these systems. They are a core element of segmenting a network, and they play a crucial role in any IIoT-related network security strategy.

Firewalls have a few main goals, including:

- Protecting any connections between enterprise and industrial networks, and preventing external threats.
- Creating barriers within a network to prevent internal issues from spreading.
- Permitting only approved communications between devices to protect against malicious attacks and device or operator errors.

To achieve these goals, firewalls take many different forms, from simple packet filtering to specialized industrial protocol support. For proper network protection and performance, you need to select the appropriate type of firewall for use in each part of your system.

Four considerations when selecting firewalls

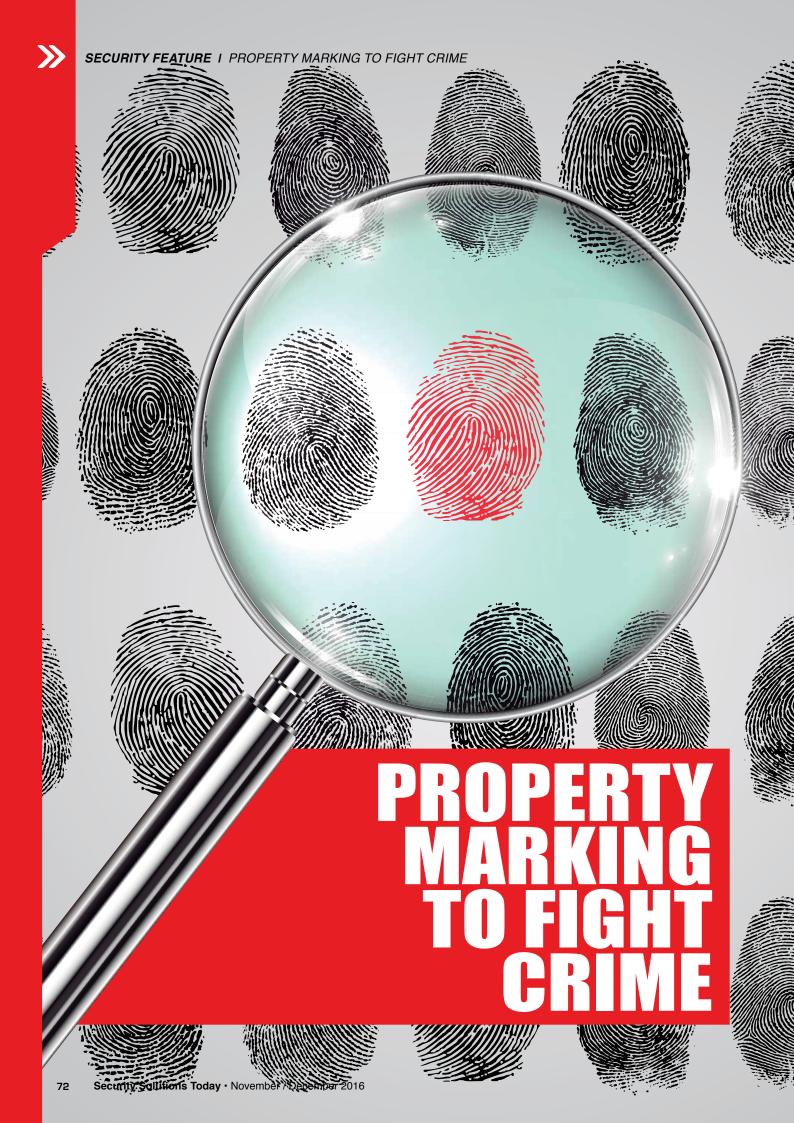
There are a variety of factors to keep in mind when looking at options for firewall security. Filtering differences, network environment concerns and how to manage firewalls across a network should be standard considerations for anyone in search of a firewall solution.

1. Tailored for your network: Like choosing specific IIoT devices, firewalls should be able to accomplish very specific tasks that support your custom needs and applications. Select firewalls that match the unique communications patters and needs of the devices across the network.

- 2. Inspection at multiple levels: Depending on where it will sit in your system, various filtering mechanisms will be needed. Firewalls used close to machines as part of a "zones and conduits" security strategy will need to understand industrial protocols and perform deep packet inspection. In contrast, a firewall used to secure the perimeter between a remote site and the Internet will need the ability to process Internet Protocol (IP) traffic.
- 3. Withstand robust environments: Depending on your network environment, firewalls could be subjected to extended temperature ranges, significant vibration and other environmental factors. Ensure any firewall you choose can withstand harsh environments and that they are compliant with all industry standards and approvals. Selecting a firewall without the robustness required for the application at hand will derail a project very quickly.
- 4. Keep it simple: Without a powerful management tool for simple and mass configuration of firewalls, the tasks can be very time-consuming and error-prone. Teams need to be able to effectively manage and configure the devices when using multiple firewalls. It's important that firewalls can be centrally monitored by network management tools to keep things running smoothly.

Firewalls are just one component of an effective security strategy for companies taking advantage of the IIoT. But, don't downplay their use – they're the cornerstone that holds a holistic security model together. Having a solid understanding of the types of firewalls available and the role each plays results in successfully securing the network from a range of internal and external threats lurking out there.

By implementing a holistic defense strategy that includes firewalls, you can design networks that effectively mitigate threats and defend against the errors and vulnerabilities introduced by an ever expanding range of IIoT devices and environments.



here are many facets to crime prevention, but identifying your possessions by property marking to make them less valuable or even worthless to a thief is one of the most simple and cost-effective solutions.

Property marking by itself cannot prevent a theft from happening but it can act as a significant deterrent to most thieves and has already made an impact in reducing crime in the Asia Pacific region, specifically in Australia and New Zealand, where property marking has helped reduce theft from schools, homes, businesses and banks.

Traceablility is key

Few things are more frustrating to a police officer, than to have to return stolen property to a known thief because the true owner of the property cannot be traced. Effective forms of property marking enable the Police to return the property to its rightful owner, and to make an arrest.

When British property marking company Selectamark launched in 1985, little did it imagine that it would become the global leader in asset marking solutions, with big name clients including McDonalds, Balfour Beatty and Shell.

In helping businesses, homeowners, local government, schools, shops and hospitals protect their property, Selectamark has marked approximately 75 million valuable items worldwide over the last 30 years. The company's products are patented and distributed to every Continent.

Headquartered near London in the UK, it serves its customers both directly and through a wide network of nearly 40 distributors worldwide including in the Asia Pacific region: Australia, New Zealand, the Philippines, Hong Kong and a new venture in Thailand.

Product focus

Selectamark, the company's original permanent marking system, was launched in the early 1990s and is still a popular choice as a visible theft deterrent today, often being used in conjunction with tamper proof labels. Also available is an Asset ID system and a wide range of asset labels under the SelectaLabel brand.

The company's SelectaDNA forensic marking product was launched in 2004 and is the first true DNA security system in the property-marking field. The product range has been extended to include a Grease and Trace application to prevent and deter metal theft of items such as lead roofs, copper piping and manhole covers, and a Gel for the protection of indoor materials. SelectaDNA is also available in Spray format to deter retail burglary and smash and grab raids.

SelectaDNA was recognised as a major factor in discouraging and detecting crime when Greater Manchester Police used it in 2011 to reduce burglary by 83% in a local crime hotspot area.

The police said SelectaDNA had not only significantly reduced burglary, but its use helped increase public confidence in local police and brought the community closer together.

Another highly successful crime reduction campaign using SelectaDNA to deter theft helped Cheshire Police record the biggest drop in burglaries in England and Wales in 2015/16.

Operation Shield is thought to have contributed significantly to a 19% year-on-year fall in burglaries – with an estimated 1,300 fewer victims and a saving to victims of more than £2.5m in a seven-month period alone.

Other security products from Selectamark include the Chelsea Clip, which was launched back in the 1980s, and is still being used to successfully deter bag theft from bars, restaurants and hotels internationally.

The Selectamark database, where marked property is registered, is accessible globally to assist overseas police forces in identifying marked items. The database operates to the highest standards, having most recently achieved ISO27001, covering the safe and secure management of information internationally.

Looking forward

A new Selectamark distributor has just started trading in Thailand with a major focus on helping to reduce crime in the education sector. This follows on from great success using Selectamark's visible permanent marking system together with various labels from the SelectaLabel range to protect valuable assets such as laptops, iPads and computers from theft at hundreds of UK schools.

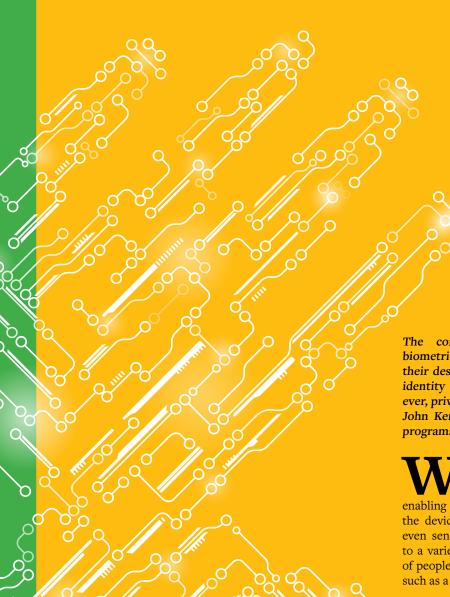
Security consultant Steve Wright from Securus Asia will start off by marketing Selectamark, SelectaLabel and Chelsea Clip products in his region. "We will initially focus on introducing the product range to the Education, Healthcare & Hospitality sectors, multinationals, large Thai companies and the Government," said Steve. "With Thailand and the UK having a similar population, we aim to eventually mirror the success of Selectamark's UK business by adding other Selectamark products in the future."

James Brown, MD of Selectamark UK concluded: "Acquisitive crime won't go away but our role as a global security company is to try to keep one step ahead of criminals by continually working with police to achieve that challenging aim."

For more information, please visit: www.selectamark.co.uk. ssr



WEARABLE BIOMETRICS TO UNITETHER ACCESS CONTROL





By John Kendall, Director of the Border and National Security Program at Unisys

The convergence of wearable technology and biometrics has the potential to free security staff from their desks as well as consider new ways of verifying identity for people in crowds, on the move. Yet as ever, privacy concerns will need to be addressed - says John Kendall, director border and national security programs, Unisys.

that can be worn on the body and typically have communications functionality, enabling data to be exchanged between a network and the device such as smart watches, glasses, badges or even sensors embedded in clothing. Biometrics refers to a variety of technologies in which unique attributes of people are used for identification and authentication such as a fingerprint, iris print, hand, face, voice or gait.

While biometrics have become cheaper, more accurate, and easier to use, the lack of revolutionary change in capture technology has constrained both the types of applications that employ biometrics and types of biometrics used in those applications. Until the emergence of wearable technologies – which will enable biometrics measures to be more portable, and, in the case of managing physical access, extend access control beyond the front security control desk.

Blending wearables and biometrics

As some existing wearables already include a camera, combining this with biometric technology could enable them to be used for both user authentication and for identification of other people. For example, smart glasses and body worn cameras might use facial biometrics on the device itself to immediately identify people in the field of view.

It is worth noting that public acceptance of any biometric application is impacted by the intended purpose. While there was some initial pushback against early smart glasses using facial recognition in consumer products, it will more likely be accepted when used in "serious" applications such as law enforcement. For example, Unisys Security Index research found 77 percent of Malaysians support using biometrics to verify passenger identity when boarding an aircraft. However, only 33 percent support airport retailers using biometrics to make customised sales offers2.

As law enforcement already has strong public support for using biometric applications, it is expected to lead the introduction of wearable biometrics. In fact, body worn cameras that clip onto uniforms like a badge, are already being used by law enforcement agencies globally to identify persons of interest by matching facial images against a watch list and notifying the wearer via a smart phone or discreet Bluetooth earpiece. Similarly, the facial recognition capability could alert a roving security guard that a person in the field of view is in an unauthorised area or not accompanied by his/her designated escort.

The biometric industry agrees: 63 percent, of biometric professionals surveyed at the 2016 Biometrics Institute Asia Pacific Conference2, said that enabling law enforcement and security officers to identify known or suspected criminals or terrorists is the most appropriate opportunity to incorporate biometrics into wearable technology – with far less support for consumers using smart watches to authenticate payments (19 percent) or using biometrics to control access to data captured by wearable devices (14 percent).







Respondents also said facial recognition is the most appropriate biometric modality for wearable technology, followed by voice identification. And wristbands (52 percent), watches (19 percent) and lapel badges (15 percent) are the wearable formats best suited for biometrics.

However, the really exciting future is in radically new biosensors that will transcend the limitation of today's 'smart accessories' to enable practical applications for an entirely new class of non-traditional biometrics. These include smart



clothing – from underwear to shirts and jackets – that has conductive threads to enable the detection, transmission and protection of electrical signals, effectively turning the clothing into a sensor.

Let's apply this to managing access to physical locations

• Gait recognition identifies an individual by the way they walk. Traditionally gait recognition uses video analytics and requires clear field of view and an extended capture area. However, some of the smart clothing being developed for sports and exercise includes accelerometer sensors embedded in shorts, pants, socks and shoes. These sensors are able to provide a continuous stream of gait biometrics even in crowds or behind obstructions. Because gait is very difficult to spoof, gait recognition could be useful for continuous access control in sensitive facilities. As smart clothing becomes standard wear in the future, individuals wearing their smart clothing won't have to worry about signing in/out and swiping ID cards.

- Or how about skull recognition? Persons who wear smart glasses or smart headphones can reportedly be identified based on the way sound is conducted through their According to research head. from the University of Stuttgart, Saarland University and the Max Planck Institute for Informatics, each skull shape is unique and sound transmission through the skull can be captured as a biometric pattern that can be matched much like voice identification using a solution they call SkullConduct. So if you are a smart glasses user and don't want someone else to pick up your glasses and access your data,
- Embedded biosensors placed directly on or under the body surface are another key development. While these are currently used for monitoring medical conditions there are already patent applications for smart contact lenses with a display that can project images straight into the users' eye4. The possibilities are amazing!

this could be the biometric for you.

Managing privacy concerns

The survey at the APAC Biometrics Institute Conference also found that privacy concerns regarding access to biometric information stored on the cloud is cited as the most significant roadblock to incorporating biometrics into wearable technology (79 percent). Whereas technology, format and cost were not generally viewed as impediments. As with most security measures, communication about how information is obtained, used and secured, for what purpose and for whose benefit, is key to gaining public acceptance.

For more information, please visit: http://blogs.unisys.com/author/john-kendall/.sst



IN-BUILDING COVERAGE SOLUTION PRIMER



By Martin Gillmon, Trans-Asia Communications & Electronics

hen designing a structure-specific RF Distribution system, many different factors must be considered. Namely, defining types of frequency bands required, level of coverage required, and restrictions in place. The physical design of a building plays a large role too. For a large building with high ceilings and large open areas, a Distributed Antenna System (DAS) works well. A radiating cable system is best suited for tunnels and buildings with long narrow hallways and smaller rooms and offices to either side. A combination of distributed antennas and radiating cables are used in many applications. Restrictions such as mandatory use of plenum-rated cable or conduit for all cables can limit design options.

TX RX provides a Signal Booster System Design Questionnaire as a preliminary checklist to assist the systems engineer in determining the type and gain of booster needed for designing an RF Distribution system.

The essential parts to any structure-specific coverage system include the site or rooftop donor antenna, signal booster, and coverage antenna system. For larger projects where numerous antennas and cable runs may be required, splitters or taps are needed. Proper sized splitters and taps must be used when designing inbuilding systems to ensure that no one antenna or area has significantly more signal than another.

A power divider splits a signal into equal parts. Typical power dividers range between 2 and 6-ports but are available in many other configurations and can operate over a wide frequency range. For in-building use, the 2-way power divider is most commonly used, with a signal loss at each port of approximately 3d8. In a large system where there are many different branches off of the main signal path, the 3dB loss from each of the branches will add up quickly and the signal level available at the outermost branches will be much less than the closer branches. To overcome this problem and to better balance the signal level throughout the system, uneven Hybrid Splitters/Directional Couplers are used.

A directional coupler is a passive 4-port device that transfers a portion of the power from one transmission

line to another by a fixed amount. The-four ports as are input, transmitted, decoupled and isolated. The main line direction is from the input (P1) to the transmitted output (P2). The isolated port is usually terminated in a 50-ohm load. The coupled port provides the second output. Because this device is linear, any of the 4-ports can be the input port. The remaining 3-ports will always be oriented the same in respect to the input port. TXRX manufactures several different models of hybrid couplers. The couplers are first grouped as to their frequency range- 132- 174MHz, 406-512MHz, and 800-100MHz. The 406-512MHz and 800-1000MHz bands have a number of available decoupling values, 3, 4.8, 6, 7, 10, 15, 20, and 30dB. In the 132-174MHz ranges, only 3, 4.8, 6, 7, and 10dB-decoupled values are available. When a project requires that the system consist of more than one frequency band, a Harmonic Hybrid coupler/ splitter is used. The different bands are created using harmonics of the VHF band. The frequency bands of the Harmonic Hybrids are 144-174MHz, 450-530MHz, and 806-890MHz.

Signal samplers, often band-specific, are comonly used as couplers in RF distribution systems due to their low cost, small size and the range of available 9ecoupled values. These devices are intended to provide a convenient and safe test point for measuring signal strengths and making performance tests. Signal samplers or Taps as they are commonly referred to as, are installed in the transmission line where coverage is needed. The antennas are small; whip type antennas attached directly to the tap.

Another device used for multi-band systems is the crossband coupler. There are a number of different models avail able with different characteristics to cover a wide range of applications. For in-building coverage systems, these devices are used to combine equipment input/outputs of different bands onto a common RF distribution system. Crossband couplers allow multiband operation of tower transmission lines, reducing costs and tower loading.

For more information, please email: gillmon@singnet.com.sg. *s*=*τ*





Dahua Launches New Pro series PTZ Camera

ahua Technology, a world-leading manufacturer and supplier of video surveillance products headquartered in Hangzhou, China has introduced its new Pro series PTZ camera.

With Starlight performance, 25x Optical zoom, auto tracking and face detection capabilities, Dahua's the new Pro series PTZ camera brings a new range of performance and efficiency features for demanding video surveillance. It will significantly expand the use of mid-range PTZ camera in the market. The new Pro series offers the appearance of model SD59/SD50/SD52C that has been well favored by users.

Better image

Dahua's starlight feature, combining high-performance ISP and SONY STARVIS Sensor with advanced Dahua algorithm, enables the new Pro series PTZ camera to provide unprecedented high quality, low noise and vivid images in challenging light conditions. Moreover, Wide Dynamic Range (WDR, 120dB) allows the new Pro series to provide more details and content in scenes with intense backlight. The IR distance of these new cameras will be extended from 100m to 150m so as to increase the surveillance coverage at night. These features are especially beneficial in low light



areas such as open public spaces in city centers.

Higher powered optical zoom

The new Pro series PTZ camera can zoom into images at up to 25x, which is stunning compared to other PTZ cameras at the same price in the global market. Cost effectiveness is an important driver to broader adoption in small and medium-sized enterprises' applications that need to capture the finer details.

More powerful performance

Auto tracking, an intelligent function of Ultra series, is a standard feature of the Pro series PTZ camera. The new Pro series have the atomatic capability to simultaneously record all tracks and capture more details when zoomed in. This is a core value that other cameras cannot offer. In addition, the new Pro series' H.265 compatible compression technology reduces bandwidth and storage costs by up to 50%. High frame of 60fps@1080P can capture movements clearly and would play essential roles in casino or transportation solutions.

Dahua's new Pro series PTZ Cameras, which are designed with additional value to expand users' choice, are ideal for outdoor arenas. These include, city surveillance, shopping mall, airports, railway stations and harbors.

For more information, please visit: www.dahuasecurity.com. *≡≡⊤*





See more of Dahua's Penta-brid Video Recorder - XVR

ahua Technology, a world-leading manufacturer and supplier of video surveillance products headquartered in Hangzhou, China, officially announced the release of XVR, signifying a broader open of Dahua Video Management Systems (VMS) in partners' applications.

Dahua VMS, partnered with Geutebruck, GeoVision, Heitel, etc., serves as the user interface to command and control Video Surveillance Systems, which consists of Imagers, Recording Devices, Extended Storage, Intelligent Analytics, User Display and Control interfaces (Monitors, Video Walls &Keyboards).



Intelligent functions

Equipped with the intelligent functions of IVS and face detection, XVR records and analyzes tripwire, intrusion and disappearance from the images. In addition, these intelligent functions meet the application requirements of high efficiency and intelligence. XVR combines the simplicity of analog systems and rich camera selections to achieve simple installation and easy operation.

Applications

Designed to be fully intelligent, XVR is able to provide end users with the simplicity of analog system, flexibility and wide selection of cameras. Ease of installation and reuse of existing coaxial cabling provide significant cost savings. Therefore, it is ideal for a wide range of applications such as public safety, retail stores, transportation, stadiums, recreation centres, home surveillance and education, etc.

Models:

XVR41/4200 Series 720P

• Full channels 720P real-time recording

- HDCVI/AHD/TVI/CVBS self-adaptive plug and play
- 1/2/2 extra IP channels
- Powerful network performance
- Up to 6TB capacity for each SATA

XVR51/5200 Series 1080P-Lite

- Full channels 1080P non-real-time/720P real-time recording
- HDCVI/AHD/TVI/CVBS self-adaptive plug and play
- 2/4/8 extra IP channels
- Powerful network performance
- IVS, Face detection, Smart H.264+

XVR71/7200 Series 1080P

- Full channels 1080P real-time recording
- HDCVI/AHD/TVI/CVBS self-adaptive plug and play
- 2/4/8 extra IP channels
- Powerful network performance
- IVS, Face detection, Smart H.264+

For more information, please visit: www.dahuasecurity.com. *≡≡τ*





New Altronix NetWay[™] Managed Midspan Provides Full Power and More Bandwidth



Itronix, the recognized leader in power and transmission solutions for the professional security industry, is showcasing one of its latest additions to the company's industry proven line of NetWayTM PoE solutions.

The new eight port NetWay8G Managed Midspan provides 30W full power per port (240W max), 10/100/1000Mbps, integral battery charging, and incorporates Altronix's innovative LINQTM Network Communications Technology.

"Our new NetWay 8G Managed Midspan is designed for today's high resolution network cameras and devices that place increased demands for power and higher transmission rates on IP infrastructure," said Alan Forman, President, Altronix Corporation.

"NetWay8G delivers full PoE+ across every output with extended bandwidth and versatile network communications required for advanced system deployments."

The NetWay8G Managed Midspan features eight PoE+ ports as well as USB and Ethernet ports for setup, programming and service. It includes integral battery charging for applications requiring back-up power and features Altronix's innovative LINQ technology to monitor, control and report power and diagnostics from anywhere.

NetWay PoE solutions carry a lifetime warranty and are made in the U.S.A.

For more information, please visit: www.altronix.com. == \tau





Altronix TroveTM Access and Power Integration Solutions

Accommodates the Industry's Leading Access Control Products and Accessories

Itronix, the recognized leader in power and transmission solutions for the professional security industry, is showcasing its popular line of TroveTM Access and Power Integration Solutions. Trove enclosures and backplanes combine Altronix power with access controllers and accessories from the industry's leading manufacturers. Trove simplifies board layout and wire management, greatly reducing installation and labor costs, and provides the versatility and scalability that system designers and installers need to easily configure exactly what they need.

"Our Trove Access and Power Integration Solutions greatly reduce the time it takes to efficiently layout and install access control solutions, which directly results in cost savings for users and installers alike," said Alan Forman, President, Altronix Corporation. "And now we've simplified the process by offering a free online Trove configurator that helps you layout and specify the exact power and access control products that you need."

The Trove2 Access and Power Integration Solution includes an enclosure and choice of various backplanes for AMAG, CDVI, KABA/KeyScan, Mercury, Software House and HID/VertX access controllers and accessories. The versatile Trove2 accommodates a wide range of boards with or without Altronix power supplies and accessories. Designed for large systems, Trove2 allows access control systems to be wired and pre-tested prior to on-site installation for added cost and performance efficiency.

Altronix also offers the Trove1 Access and Power Integration Solution, a compact enclosure for smaller systems, with a selection of backplanes to accommodate CDVI, HID/VertX and Mercury access controllers. All Trove units include a cam lock, tamper



switch and mounting hardware.

The new Trove Configurator is available free at: http://altronix.com/configurators/trove2/index.php.

As with all Altronix products, Trove Enclosures are made in the U.S.A.

All trademarks are registered property of their respective owners.

For more information, please visit: www.altronix.com. == \tau





New Altronix VR6 Voltage Regulator and PDS8 Dual Input Power Distribution Module Deliver Maximum Versatility

Combined Solution Provides 12V and 24V DC from a Single 24V DC Power Supply

Itronix, the recognized leader in power and transmission solutions for the professional security industry, is expanding its line of power management solutions with the introduction of the VR6 Voltage Regulator and the PDS8 Dual Input Power Distribution Module. The VR6 Voltage Regulator reduces the cost of adding another power supply and snaps together with the PDS8 Dual Input Power Distribution Module via common standoffs saving valuable enclosure space to provide 5VDC or 12VDC and 24VDC simultaneously—individually selectable over each of the eight outputs.

"The VR6 Voltage Regulator provides designers and installers with a high degree of versatility to implement more cost-effective surveillance and security systems," said Alan Forman, President, Altronix Corporation. "The ability to repurpose a single 24V DC power supply to deliver 12V DC to a single device, or 12V DC and 24V DC to multiple devices saves both time and money."

The VR6 Voltage Regulator converts a 24VDC input into a regulated 5VDC or 12VDC output and offers surge

suppression. It features a 24VDC input at 1.75A with an output of 5VDC at 6A, and a 24VDC input with 12VDC output at 6A.



The PDS8 Dual Input Power Distribution Module features eight fuse protected power outputs that are selectable to follow input 1 or input 2. It provides 5VDC to 24VDC up to 10A, or 16VAC to 28VAC up to 14A. Individual outputs may be set to the "Off" position for servicing, and multiple outputs can be daisy chained to accommodate larger system requirements.

The VR6 Voltage Regulator and PDS8 Power Distribution Module carry a lifetime warranty and are made in the U.S.A.

For more information, please visit: www.altronix.com. == \tau

Model: Mega Dome 4K

By: Arecont Vision

) www.arecontvision.com

- The dual-mode camera delivers a choice of full 8.3MP (3840x2160 megapixels) for 4K ultrahigh resolution image qualities at 30 fps (frames per second) to cover a wide range of project requirements.
- The new MegaDome 4K camera brings unmatched image quality, advanced capabilities, and 27 times the resolution of standard-resolution IP cameras.
- Outputs high definition video at full real-time frame rates.
- New design features also make installation easier than ever before.
- Contains an easily adjustable 3-axis gimbal design on which the remote focus/zoom P-Iris lens is mounted to provide a wide range of coverage options.
- Has a unique new dome and enclosure system that reduces the time necessary for camera installation.
- MegaDome 4K features a mechanical IR cut filter and IR LEDs for true day/night functionality.
- Binning mode (in 1080p) delivers strong low light performance.
- MoonlightTM mode provides extended exposure time and noise cancellation.
- The IR LEDs feature an adjustable beam angle and LED intensity for enhanced video in a wide variety of low light conditions.
- MegaDome 4K is suitable for both indoor and outdoor applications, featuring an IP-66 water/dust rating and an included IK-10 vandal resistant dome.
- MegaDome 4K features also include dual encoders (H.264/MJPEG).
- Features Casino ModeTM and P-Iris control.
- Additional features such as privacy mask, motion detection, flexible cropping, and bit rate control.
- Arecont Vision SNAPstreamTM (Smart Noise Adaptation and Processing) technology reduces bandwidth without impacting image quality.
- The camera also includes support for a SDHC card for onboard storage requirements.
- Power can be supplied via a single Power-over Ethernet (PoE) compliant network cable with no
 - external power required for the camera or IR LEDs, or powered from a 12-48V DC/24V AC power supply.
- The built-in camera interface allows for an intuitive, fast, and easy configuration.
- The AV IP Utility tool allows users to quickly configure or update one or multiple cameras simultaneously.





Model: MegaVideo Flex

By: Arecont Vision

(i) www.arecontvision.com

- The MegaVideo Flex IP camera series offers a cost-effective security solution for installations that require a more flexible and compact design than other professional security cameras deliver.
- MegaVideo Flex easily fits into a wide range of areas and settings.
- Ideal for inconspicuous surveillance applications, for use in automated teller machines (ATMs), in vehicles and mobile applications, and for use in tight spaces while delivering megapixel (MP) high definition video.
- The camera series features a choice of 1.2MP, 1080p, 3MP, and 5MP resolution models, and is vibration tested.
- MegaVideo Flex is a true day/night camera that is ideal for applications with variable lighting conditions.
- NightViewTM technology in the 1.2MP model ensures coverage in areas where little light is present.
- Applications with bright or over-saturated lighting conditions can be addressed with models that include Wide Dynamic Range (WDR).
- The MegaVideo Flex IP camera is composed of the camera sensor, main camera unit, metal mounting bracket, and the USB cable used to connect the camera sensor with the main camera unit.
- The camera sensor can be surface mounted via the supplied mounting bracket or flush mounted into a ceiling or wall with the two (2) included fastening nuts only.
- The USB cable flexibly allows the camera sensor to be mounted in one area while the main unit is up to 12 meters (40 feet) away.
- The camera includes both a white and a black trim ring so that the small sensor further blends into many environments.
- The main unit features two (2) USB ports to allow the addition of one or two optional IR (infrared) illuminators.
- Each illuminator includes six (6) infrared 850nm LEDs to provide up to 15 meters (49 feet) of enhanced night vision capability.



- MegaVideo Flex IP cameras are enhanced with the convenience of remote focus.
- Facilitates both the ease of initial setup and simplifies future adjustments, reducing time required to be spent at the jobsite.
- Options include 2.1, 2.8, 4, 6, 8, 12, and 16mm lenses.
- Are designed on the Arecont Vision highly efficient H.264 encoding platform to deliver high quality video and advanced streaming.
- New Arecont Vision SNAPstreamTM (Smart Noise Adaptation and Processing) technology further decreases bandwidth usage.
- Power can be supplied via a single Power-over Ethernet (PoE) compliant network cable, or powered from a 12-48V DC/24V AC power supply.
- The built-in camera interface allows for an intuitive, fast, and easy configuration.
- The AV IP Utility tool allows users to quickly configure or update one or multiple cameras simultaneously.

Model: AXIS Q6155-E pTZ Dome Network Camera

By: Axis Communications

(i) www.axis.com

- AXIS Q6155-E PTZ Dome Network Camera features a built-in laser that measures the distance between the camera and the object of interest.
- Offers much faster and more accurate autofocus even in the most challenging lighting conditions.
- The new laser focus technology combined with the high image quality that AXIS Q6155-E offers is valuable in situations when people or objects need to be identified quickly and precisely.
- Camera provides instant and exact measurement.
- AXIS Q6155-E features Sharpdome, a technology which allows for monitoring of objects as much as 20° above the camera horizon.
- The camera offers HDTV 1080p resolution and 30x optical zoom.
- This high-end camera brings sharp images even when weather or lighting conditions are challenging due to its laser focus, a new and improved sensor, Axis' Lightfinder technology and Axis' Speed Dry function.
- AXIS Q6155-E is ideal for city and perimeter surveillance, critical infrastructure, transportation, education, and industrial and government installations.
- Its sleek design, compact size and re-paintable casing allows the camera to blend in with its surroundings.
- It offers quick and precise pan-tilt-zoom (PTZ) and high scene fidelity at all angles of view.
- Axis' Zipstream technology lowers bandwidth and storage requirements while keeping necessary forensic details.
- AXIS Q6155-E is supported by the industry's largest base of video management software through the Axis Application Development Partner (ADP) Program and AXIS Camera Station.
- Third-party video analytics applications can be installed via AXIS Camera Application Platform.
- ONVIF support allows for easy integration into existing video surveillance systems.





Model: AXIS Q1659 Network Camera

By: Axis Communications

www.axis.com

- AXIS Q1659 Network Camera combines a highperformance image sensor and Canon EF/EF-S lenses with the full range of Axis flexibility, ease-of-use and efficiency features to provide exceptional image quality in extreme detail for a range of surveillance needs.
- It is an ideal offering for detailed surveillance over long distances for cities, airports, transportation, stadiums and other open areas.
- AXIS Q1659 can, thanks to its broad VMS support, be quickly integrated with existing security environments.
- AXIS Q1659 delivers 20MP resolution at 8 frames per second (fps), achieving unprecedented levels of detail for observing open spaces and across long distances.
- It features digital single-lens reflex (DSLR) imaging technology and offers a choice of 7 different EF/EF-S lenses depending on individual user needs.
- Equipped with an EF lens mount, the camera enables easy lens changes.
- AXIS Q1659 is supported by the industry's largest base of video management software through the Axis Application Development Partner (ADP) Program and AXIS Camera Station.
- Third-party video analytics applications can be installed on the camera via AXIS Camera Application Platform
- ONVIF support allows for easy integration into existing video surveillance systems.
- The new camera also offers the latest enhancement of Axis' Zipstream technology, which offers even more storage and bandwidth savings in video surveillance applications without compromising on important image details.
- An SFP slot for optional fiber connectivity gives the ability to connect to the network over long distances.



Security Solutions Today is now on issuu! issuu.com/securitysolutionstoday



Model: equIP® Camera Series

By: Honeywell

(i) www.honeywell.com

- High performance surveillance, uncompromising reliability.
- Re-define video surveillance with its high image quality withstanding varying degrees of lighting and weather conditions.
- Facilitates real time monitoring, immediate action and informed decision making.
- Honeywell equIP® line of cameras are the latest range of high quality and rugged cameras for a wide variety of applications including traffic & city surveillance, railway & metro premises, riot prone areas such as universities, hospitals, and markets.
- Offers vandal-proof outdoor cameras with a robust design, available in two and four mega pixel resolutions for superior image quality.
- The cameras have been specially designed for easy installation and use.
- The cameras have multiple lens option of up to 5 ~ 50 mm supporting Onvif Profile S/G and provide triple stream true Wide Dynamic Range (WDR) up to 140db with a SD card slot for onboard video storage of
- Comprising of 16 different models with indoor dome, outdoor dome, box, bullet and pan-tilt-zoom camera, it is the ideal solution for customers with high security needs that require a reliable solution, with less downtime, and lower maintenance cost.
- Full range of high image quality cameras for a wide range of applications in 2MP & 4MP resolutions.
- Built with the latest video technologies inside a tough housing that is outdoor-ready for extreme and hostile environmental conditions with IP67 & IK10 ratings.
- Features a high WDR range with a minimum of upto 120dB.
- Cyber secured IP cameras that are ideal for customers with high cyber security needs (eg. banking, critical infrastructure).
- New simplified graphic user interface. Certified regulatory compliance with CE, FCC & UL.
- Reliable, easy-to-install, high quality products with less down time, lower maintenance cost.

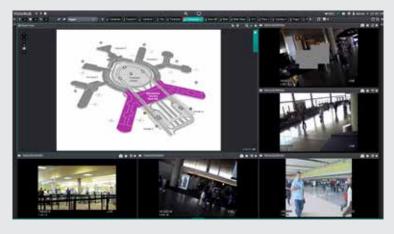


Model: VisionHub

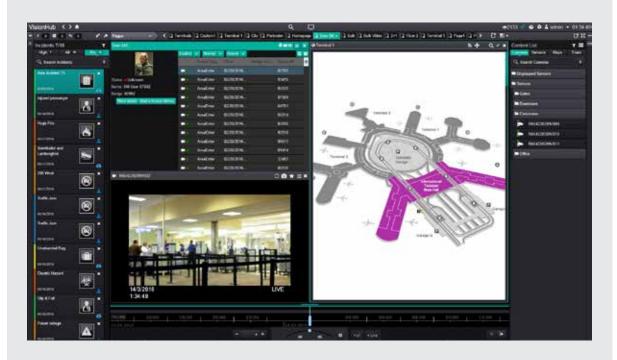
By: Qognify

i www.Qognify.com

- VisionHub is a high end Video Management System pioneering a new era of security solutions.
- VisionHub offers a holistic security management solution, leveraging video as the central sensor in the control room and combining additional data and best practices, yielding risk reduction and helping maintain business continuity.



- High-end video management- relying on Qognify's vast experience and robust video management core. A rich video experience with advanced features for video management, investigation and export.
- Access control management vendor agnostic integration to access control with a built-in two-way rich management module.
- Openness integrations with key security systems such as intrusion detection, fire detection and alarm panels.
- Visualization GIS enabled mapping to track incidents and sensors.
- Incident management collaboration, automation and workflows.
- Easy deployment enhanced capabilities for faster and easier deployment.

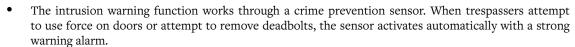


Model: Milre MI-480S

By: Allegion

(i) www.allegion.com

- Luxurious Premium Smart DDL.
- Ml-48oS is designed with complete colour concept of black with a refined metal chrome frame.
- Rim lock is a door lock building upon the existing and diverse security functions and convenience applications.
- Mode change is easy (Normal mode & Safety mode) as it comes in a Dual-button form, which improves the complex mode conversion of competing companies' singlebutton form.
- Individual registration or deletion of smart card is available.
- Random security coding function allows secret codes to be hidden.



- The anti-harassment and anti-password hacking function generates an alarm sound and blocks input for a specific time.
- It recognizes non-registered secret codes or card keys over 5 successive times.
- One-touch button function is pre-emptively disabled in order to prevent any illegal opening as contacting the one-touch button in the inner door lock via external tools may unlock it.
- The auto lock and re-lock function ensures that when the door is closed, there is no need to lock the door manually. If the door is not opened after the correct secret code (or registered card key) is applied, it is relocked on its own at every 10 seconds.
- Equipped with easy-to-check battery status due to 2-step level indicator and battery replacement time alarm with sound and blinking.









ACCESS CONTROL

Model: Milre MI-6800

By: Allegion

(i) www.allegion.com

- Smart DDL with high-tech fingerprint identification.
- Succeeds MI-6000 in design that is basic, modern and profound.
- Applies the latest FPC fingerprint sensor coupled with prevention function to accept actual fingerprint input.
- Prevents input of imitation fingerprints made of rubber, paper, film, silicon etc.
- Has a dual-botton form that improves the complex mode conversion of competing companies.
- Higher convenience and easier modes of changing.
- The random security coding function prevents actual secret code from being revealed.
- Facilitates escape in emergencies via panic release handle.
- Has a mortise lock that assists easy adjusting to directions.
- The double lock function works to prevent opening the door from the outside, even with a registered card key or a secret code.
- The auto lock and relock function ensures automatic locking at 10 second intervals of no activity.
- Easy-to-check battery status with 2-step level indicator and battery replacement time alarm with sound and blinking.
- Volume control can be done in 8 levels.





Model: DMR Handheld Radio PD98X

By: Hytera

i www.hytera.com

- PD98X, a new member of the already versatile DMR portfolio of Hytera, brings exceptional audio experience with enhanced features and innovations
- The PD98X offers an exceptional audio experience through noise cancellation technology, while boasting new features including full duplex calls, recording capability via Micro SD, Bluetooth 4.0 for audio or data and single frequency repeater mode to increase coverage.
- Contains an added series of cutting-edge innovations and designs and is a full-featured radio to satisfy customers' increasing demand in terms of functionality and user experience.
- The addition of the PD985 positions Hytera with the most complete DMR radio portfolio to meet diversified requirements, from simple, reliable and costeffective handsets (PD3 and PD4 series) to rugged and feature-rich solutions (PD5 and PD6 series), up to the high-end, professional systems radios (PD7, PD9 and X1 series).
- The whole portfolio offers display and non-display, GPS and non-GPS, UHF and VHF versions to allow customers to select the best handset for their daily operation and mission critical scenarios.









RADIO COMMUNICATION TECHNOLOGY

Key advanced features of PD98X include:

• Full Duplex Call

PD98X enables frontline personnel to make telephony calls between other PD98X and telephones or mobile phones.

• Single Frequency Repeater Mode

Based on interference cancellation technology, the PD98X is able to use one slot to receive a signal and another slot to transmit it in the same frequency using DMO mode to extend the communication distance.

Built-in Bluetooth 4.0

With integrated Bluetooth 4.0, the PD98X not only supports audio transmit, but also allows programming via Bluetooth.

• Noise Cancellation and 2.5W Audio Output

Maximum 2.5W output speaker and new noise cancelling technology ensure clear and loud voice communication.

• IP68 Protection

• Complies with the highest dust and waterproof standards, to confront the harshest environments, The radio continues to function after submersion down to 2 meters for up to 4 hours.

Smart Battery

This feature makes it easier to monitor the battery status, such as battery life time and charging time. It reduces charging time dramatically.

• Audio Recording via Micro SD Card

The PD98X supports up to a 32GB Micro SD card, to record up to 576 hours digital/analog audio





Model: KAIROS workstation

By: Radio Activity

① www.radioactivity-tlc.it

- Uses sophisticated software and hardware platforms that make it very powerful.
- It has a LINUX core that naturally interfaces IP devices and networks and easily allows a high level of customization.
- Its soft radio design allows KAIROS to manage the 4FSK modulation (DMR and P25 standard modulation) and the GMSK constellation (Automatic Identification System — AIS).



- KAIROS also supports general FSK standards such as POCSAG.
- KAIROS offers a world of features in a very small box: automatic multi-mode analog/DMR/POCSAG/P25, SIP/RTP interface, soft diversity reception, 1+1 assembly, WEB server support, remote control, and much more.
- The KAIROS suite of equipment satisfies the standards of simulcast transmission that is required to support paging networks with a minimum number of base stations whilst providing excellent coverage in the service area.
- When operating in DMR modulation, KAIROS can manage TIER II and TIER III trunking protocols.
- All data communication like GPS positioning, raw data communication (for SCADA or AVM applications), text messaging, alarm notifications, etc. are available at a specific IP port.
- KAIROS can also run TIER III Controller tasks on its internal LINUX core, with no additional external devices.

Some of Radio Activity's customer solutions using the KAIROS suite include:

Stand-alone Repeater/Fixed Station: Several single-site applications of KAIROS: repeater station with SIP/RTP interface, transponder, double-timeslot fixed station.

IP and RF Linked Networks: KAIROS is the perfect building block to assemble radio system infrastructures. It supports simulcast, multi-protocol operation, IP and RF narrowband connections, remote control and much more.

Tunnel/In-Building Coverage Extension: To synchronize several radio base stations in a tunnel, or underground.

Alerting System: This is a special simulcast application network used for POCSAG or analog alerting purposes. The same network can manage both DMR/analog and paging communications, sending alerting messages during communications' breaks.

SIP/Mobility: KAIROS can extend a radio network to phone applications. It can also inter-connect several radio networks (such as, TETRA and DMR) and can enable users to manage mobility within multiple radio networks.

TIER III Trunking System: KAIROS supports a number of digital trunking solutions, from single-site to multisite simulcast or multicast systems. An internal Linux-based controller, some redundancy features and phone patching are just some of the available features.

RADIO COMMUNICATION TECHNOLOGY

Model: KAIROS workstation

By: Motorola

www.motorolasolutions.com

- TrboCarE is a PC based application which provides an integrated radio dispatch management solution that works seamlessly with MOTOTRBO™ Digital Radios providing unique solutions for enhanced diverse communication needs.
- MOTOTRBO integrated data capability takes Digital two-way radio beyond simple voice communications and opens up a whole new world of functionality, which can be realized through TrboCarE.
- A powerful enablement tool for MOTOTRBOTM users.
- TrboTRACKER is an Indoor Tracking System using the map of the designated indoor areas allowing user or control centre to quickly identify the location and time of the users.
- TrboGPS periodically send out the location information and support maps from Mapinfo, Google Map and other maps in any picture format with multi-layer capability for zoom-in views.
- TrboTELE allows telemetry Services that includes monitoring activities, Trigging Activities.
- TrboVOICE enables direct radio call from PC to radio with the ability of making group/private calls coupled with the function of playback.
- TrboTEXT allows sending accurate details of the on call :Outgoing and Incoming Messages recorded.
- TrboMAIL allows sending of email from PC, Text Messaging, and User Identification. Also allows playback and duration of the conversation.
- TrboLOG with one channel connection allows Voice and Data Recording that includes information such as, User Identification, Duration and playback of the conversation.
- TrboHotSOS sends instant notification for job orders, suitable for indoor and outdoor coverage. Responders can accept, decline, start, stop, & complete orders from radio.

Industry Applications:

- Transportation & Logistics
- Oil & Gas
- Air & Seaport
- Marine
- Government securities/ Civil defence



Model: SYNAPS

By: Thales

) www.thalesgroup.com/en

- 3 new waveforms mean SYNAPS radios are the enabler of a joint C4ISR backbone, networking land, air and naval platforms and breaking operational silos.
- SYNAPS comes with a set of tools to simplify the user operations.
- For customers expecting national sovereignty, SYNAPS WAVE LAB brings in country value with sovereign Radio network development.
- SYNAPS easy allows planning and configuring the system in automated way based on mission organization, needing no extra personnel or complex training.



- SYNAPS radio network scales with ease: from small & highly capable tactical Special Forces cell, or the incremental replacement of current CNR, up to large brigade systems. This means it can support deployments ranging from few 10s of users up to 1000 users.
- For current PR4G customers, SYNAPS offers an easy transition from existing radio systems to next generation. SYNPAS is natively interoperable with PR4G. This protects investment and allows smooth transition into the new generation of tactical communications.
- SYNAPS land products are available for field tests in 2017 and for production in 2018. Aero products are available for field tests in 2018. This is consistent with the need of the main SDR programs.

Features:

SYNAPS is accelerating Collaborative Combat

- SYNAPS is the world first radio to embed real time flat networking for collaborative combat.
- Flat networking is the heart of Collaborative Combat. SYNAPS accommodates both hierarchical exchanges and transverse collaborative exchanges. It manages data flow priorities according to mission criticity.
- It allows two different platforms or soldiers that are not part of the same hierarchy, but that are part of the same community of interest to communicate directly with each other.
- The data they will exchange will be prioritized according to the criticity of the communication with an assured quality of service. This is a real step forward as compared to 1st generation SDR or even internet at home that is based best effort, meaning no priorization of the data

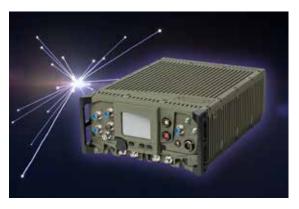
SYNAPS security and interoperability

- SYNAPS does not require users to trade security for performance. Whatever the band and the throughput, security is always active.
- SYNAPS also supports NATO standards in terms of security (NATO Restricted & NATO Secret) and waveforms, which guarantees its usage in NATO coalition situations.



RADIO COMMUNICATION TECHNOLOGY

- It also supports ESSOR HDR, the new high data rate European standard currently proposed for NATO standardization. ESSOR HDR is an interoperability backbone from battle groups down to company and platoon levels with a full security embedded.
- For non NATO nations or nations having sovereign requirements, SYNAPS is prepared for hosting coalition as well as customers national waveforms. Also, SYNAPS allow customized cyphering, according to national requirement.



SYNAPS is a full product range, highly scalable

- Concretely SYNAPS is a range of radio products, handheld, vehicle, aero and later with naval.
- Combination of hardware and software. All SYNAPS radios have unique extended operational range and connectivity on the battlefield because of excellent RF performances and advanced software radio waveforms.
- MANOEUVER, ESSOR, and AIR POWER are SYNAPS new software waveforms that will enable fast situation awareness, and joint collaborative engagements.
 - MANOEUVER operates in VHF or UHF, is the engine of sensor to shooter real time exchanges between land forces including helicopters.
 - AIR POWER allows high-speed intraflight exchanges between air platforms, and also ground to air coordination.



Model: Card Laminator

By: Evolis

i) www.evolis.com

- Product has enhanced durability and security.
- New Lamination module for plastic cards allows compatibility with desktop card printer Primacy via infrared; creating a single system for encoding, printing and laminating plastic cards.
- Prevents forgery and increases durability of governmental cards and access control badges.
- Primacy Lamination prints and laminates up to 215 single-sided cards or 110 double-sided cards per hour.
- Ribbons and lamination films are easily installed and are automatically recognized.
- Large choice of laminates and specific developments available on demand.
- Large range of lamination films with or without holograms.
- Evolis can also design and customize laminates to include unique and highly secure hologram patterns.
- Great ease of use, flexible and adaptable to market demands.

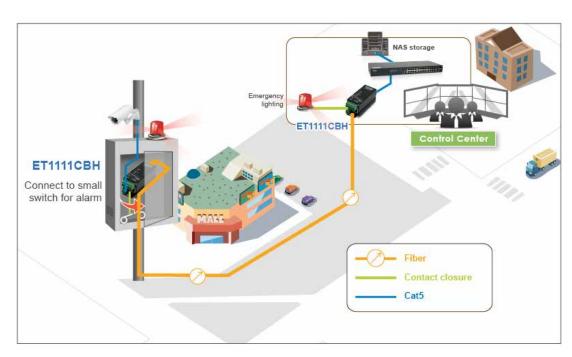


Model: ET1111CBH media converter

By: OT systems

(i) www.ot-systems.com

- Media converter with contact closure for access control applications.
- This media converter series converts a contactclosure signal input into optical signals for transmission over a single fiber-optic link in both directions.
- It's available with NO or NC dry contacts output.
- The ET111CBH series extends up to 20km for remote transmission over long distances and provides fast relay response time in 2ms, bridging the gap between automation, control environments and traditional IP-based networks.
- The ET1111CBH Series is designed for extreme temperature environments, operating from -40°C to 75° C (-40°F to 167° F).
- The series offers flexibility and is perfectly suited for the applications with access control, emergency help point, traffic control, gate control, building automation and fire and alarm system.
- With zero configurations necessary and a small-scale design, the ET111CBH series can be installed quickly and easily in most camera housings.
- The fiber supports single mode and multi-mode and allows for the SC and ST connectors.
- The dry contact closure is bi-directional and offers a quick response time of <2ms, as well as normally open and closed for the one channel dry contact.
- The output rating is max.32VDC/VAC @ 100mA.



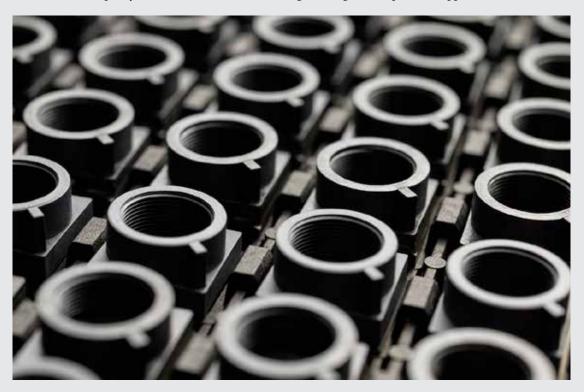


Model: Micro80 Gen2TM thermal sensor

By: ULIS

www.ulis-ir.com

- Aimed at large-volume applications.
- Improved 80x80 sensor optimized for easy integration into assembly processes for mass production.
- The fully digital Micro8o Gen2 not only supports standardized interfaces (i.e. I2C and HSync/VSync clocking) it also contains a series of improved characteristics.
- Ideal for large-volume applications and for easy integration into assembly processes.
- Features novel packaging solutions by being the first Ball Grid Array (BGA) infrared sensor box packaged in a JEDEC tray.
- It is designed using a Unique Wafer Level Packaging (UWLP) with vacuum technology; this allows it to support optical fields of up to 120°.
- It is the first infrared sensor with a unique plastic lens holder, eliminating the need for the user to develop its own, thus saving time and lowering costs.
- The new Micro8o Gen2 consumes less than 55mW. This further extends the battery life and the operating temperature range (-40° C to $+85^{\circ}$ C).
- Now more compact and lighter than earlier models.
- It supports a broad spectrum of frame rates (from 1Hz to 50 Hz) and allows vision up to 150 meters.
- Ideal for the small-resolution thermography and short-distance surveillance markets.
- Micro8o Gen2 multifunctional thermal sensor offers reliability thanks to the 80x80 pixel ratio.
- It can distinguish humans from animals or robots in all-weather and lighting conditions, 24/7 without compromising privacy.
- Ideal for occupancy detection in connected buildings, amongst other potential applications.



Model: EX300 Advanced Control Suite

By: Synectics

www.synecticsglobal.com

- 'Gesture-based' control for intuitive surveillance management.
- Management interface for its Synergy 3 command and control software, which utilizes intuitive touchscreen technology for improved incident response.
- The new EX300 Advanced Control Suite comprises a tablet device, which incorporates numerous gesture-based components including jog shuttle, a physical keyboard and a joystick device, with users able to mix and match these devices according to sector application and/or user preference.
- The tablet component is the heart of the solution and features highly customizable modular Synergy 3 software.
- Synergy 3 enables users to identify, prioritize and simplify recurring control functions, for example camera selections or clip cutting.
- In busy and highly pressured environments, these features enhance the user experience and save valuable time in situations where actions need to be both fast and accurate.
- Software and touch-screen functionality allows users to swipe, tap and scroll to manage any of the integrated solutions and functionality within Synergy 3.
- An integral keyboard within the tablet interface allows users to customize their work environment and choose to rely entirely on the tablet as a stand alone device which can be ruggedized, waterproofed or even embedded into control desks as required.
- Can be used in conjunction with the joystick and keypad components that have also been ergonomically designed to aid usability.
- The EX300 Advanced Control Suite is wireless, with Bluetooth connectivity, to minimize cables and clutter
- Proprietary encryption and security technology ensures complete data protection.
- Aligned with Synergy 3's secure digital audit trails, all activity carried out on the EX300 Suite is automatically recorded alongside user ID and securely stored for review and/or training.



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- Trend and Pattern Analysis allows analysts to conduct effective root-cause analysis and unlock hidden insights from the big data collected by Qognify's Situator.
- Custom dashboards increase operational efficiency- Operational Intelligence Center allows to customize dashboards with information that enables people in the organization to best fulfill their responsibilities from executives to field personnel.
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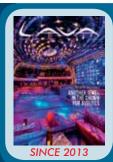
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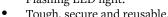
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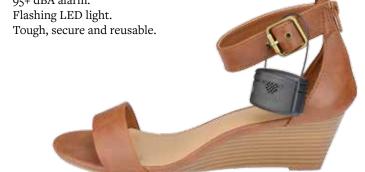
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