

Security Solutions Today

July / August 2017

SMART HOMES

Life in the IoT



Cover Focus

Smart Homes:
Are the Security
Risks Worth It?

INTERPOL Exclusive

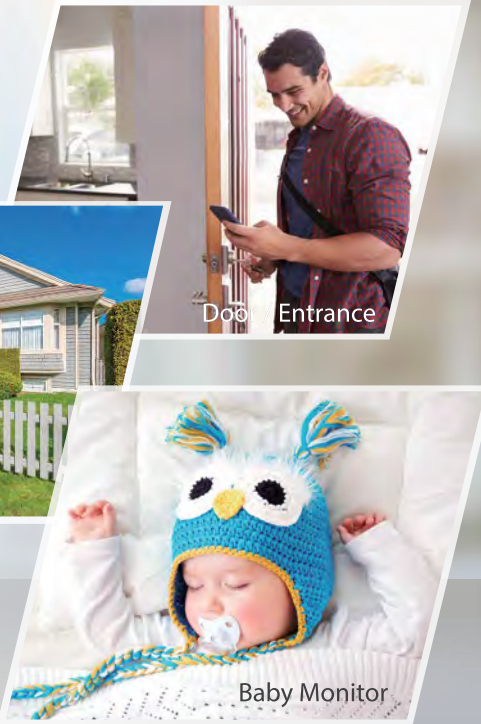
Crime Fighting Gets
SMART with Robots &
More

Inside Look

2017 Predictions
in Video
Surveillance

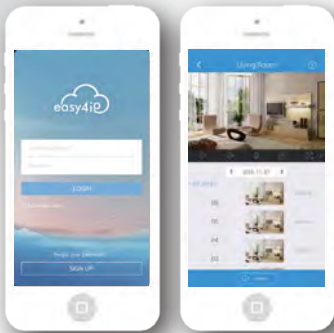





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 <p>Door / Entrance</p> <ul style="list-style-type: none"> • Visitor call forward to mobile phone • Remote door unlock • Motion detection alarm 	 <p>Perimeter</p> <ul style="list-style-type: none"> • Battery-powered PIR sensors • Wide wireless coverage • Motion detection alarm 	 <p>Baby Monitor</p> <ul style="list-style-type: none"> • 2-way audio • Live video
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INTERPOL World 2017

Date: 4 - 6 July 2017 (Congress)
5 - 7 July 2017 (Exhibition)

Venue: Suntec Singapore

Organiser: Interpol

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Website: www.interpol-world.com

Email: layeng.see@interpol-world.com

Tourism Technology Asia 2017

Date: 26 - 28 July 2017

Venue: Marina Bay Sands Expo & Convention Centre, Singapore

Organiser: Globe International Events Consultancy

Telephone: +65 6702 3005

Website:

www.tourismtechnologyasia.com

Email: sales@giec.biz

AUGUST

Secutech Vietnam 2017

Date: 16 - 18 August 2017

Venue: Saigon Exhibition & Convention Center (SECC), Hochiminh City, Vietnam

Organiser: Messe Frankfurt

Telephone: +886 2 8729 1099 ext. 768

Website: www.secutechvietnam.

tw.messefrankfurt.com

Email: michelle.chu@newera.

messefrankfurt.com

SEPTEMBER

IFSEC Southeast Asia

Date: 06 - 08 September 2017

Venue: Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia

Organiser: IFSEC SE Asia

Telephone: 6-03-2176 8788

Website: www.ifsec.events/sea

Email: tj.tan@ubm.com

OCTOBER

Safety and Security Asia 2017

Date: 4 - 6 Oct 2017

Venue: Marina Bay Sands, Singapore

Organiser: Cems Conference and Exhibition Management Services

Telephone: +65 6278 8666

Website:

www.safetysecurityasia.com.sg

Email: info@cems.com.sg

China Public Security Expo 2017

Date: 29 Oct - 1 Nov 2017

Venue: Shanzhen Convention and Exhibition Centre, Shenzhen, China

Organiser: Futian District

Government, Shenzhen Security & Protection Industry Association and CPSE Exhibition Co. LTD

Telephone: +86-755-88309123

Website: www.cpse.com.cn

Email: overseas_market@cps.com.cn

NOVEMBER

ISC East 2017

Date: 15 - 16 Nov 2017

Venue: Javits Centre, New York City, USA

Organiser: Security Industry Association

Telephone: (800) 840-5602

Website: www.isceast.com

Email: inquiry@isc.reedexpo.com

Secutech Thailand 2017

Date: 16 - 18 Nov 2017

Venue: Bangkok International Trade and Exhibition Centre, Bangkok, Thailand

Organiser: Messe Frankfurt

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tw.messefrankfurt.com

Email: jason.cheng@newera.

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DECEMBER

IFSEC India 2017

Date: 6 - 8 December 2017

Venue: Pragati Maidan, New Delhi, India

Organiser: IFSEC

Telephone: +91 (0) 11 66517606

Website: www.ifsec.events/india

Email: pankaj.jain@ubm.com

JANUARY 2018

Intersec 2018

Date: 21 - 23 Jan 2018

Venue: Dubai International Convention and Exhibition Centre, Dubai

Organiser: Messe Frankfurt Middle East

Telephone: +971 4 389 4500

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APRIL

ISC West 2018

Date: 11 - 13 April 2018

Venue: Sands Expo Center, Las Vegas, Nevada, USA

Organiser: Reed Exhibitions

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Website: www.iscwest.com

Email: inquiry@isc.reedexpo.com

SecuTech 2018

Date: 12 - 14 April 2017

Venue: Taipei Nangang Exhibition Center, Taipei City, Taiwan

Organiser: Messe Frankfurt

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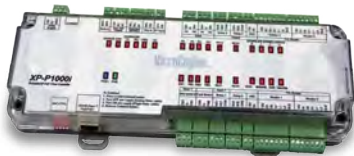
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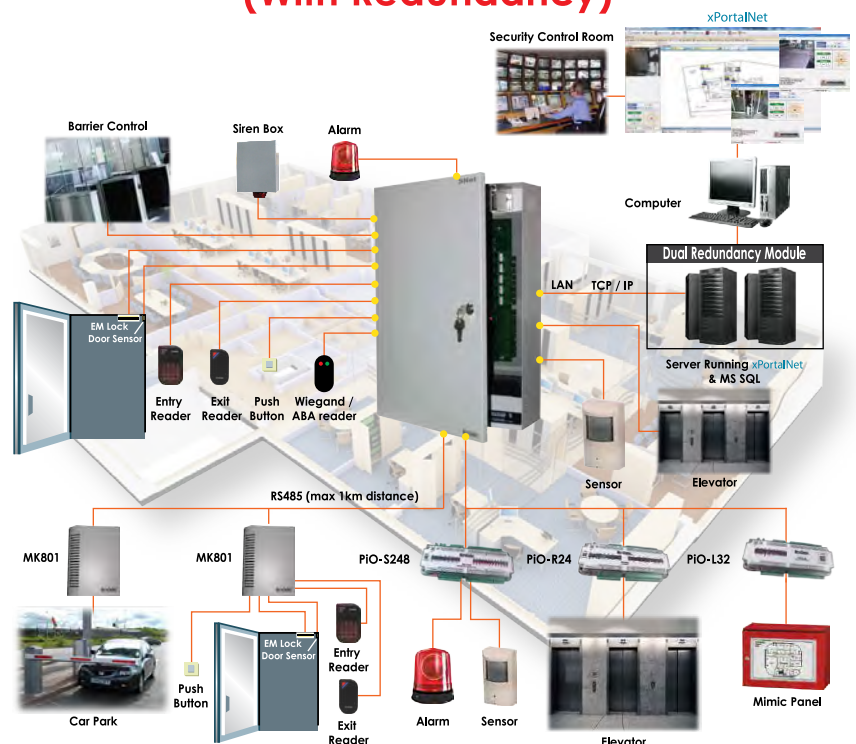
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Our Office



EDITOR'S NOTE

Dear esteemed readers,

A warm welcome to the July/August issue of Security Solutions Today. As always, it is my utmost pleasure to present you with the latest developments and trends in the exhilarating stratosphere of security in concurrence with market updates and current events.

In this issue, we ride the digital wave and delve deeper into the wonderful world of IoT which is currently a hot topic in our immensely connected society of today. What was once the stuff of futuristic cartoons such as the Jetsons is now a reality thanks to innovations in the SMART home market. However with every technological milestone comes a boulder of an obstacle to overcome. We present you with articles on the latest SMART security solutions as well as varying perspectives on the safety risks of going the SMART route in securing residences.

Our Inside Look centers on the developments occurring in the video surveillance market. The art of survilience like all other aspects of the security industry is also in the midst of a digital make-over, thanks to the shift towards IoT. Our Security Features consist of a lineup of articles on ensuring safety when utilising SMART home security solutions along with an interesting piece on how security is undergoing a metamorphosis from the standalone traditional security guard to fully automated SMART kiosks, the brain child of Singapore based company Aetos.

In line with our theme of SMART security solutions and how IoT is revolutionising the ways we stay safe in today's world, we are pleased to shine the spotlight on an exclusive array of products that will be showcased at the upcoming INTERPOL World 2017. From rugged iris recognition devices built to withstand harsh outdoor conditions to the World's only CCTV/video auditing system and even a robotic security guard that is fully equipped with video analytics and alarm triggers amongst a bevy of state of the art features. The technology behind crime fighting is clearly being revolutionised thanks to digitalisation. With regards to INTERPOL World 2017 that will be held in Singapore at Suntec City from 4- 7 July, do read our Pre-Show Review for a sneak peak into this exciting event.

In this issue's In Focus, we turn our attention to two industry players who are making their mark due to the digitalisation of the security market. In light of the recent malware and ransomware attacks such as the WannaCry virus that accumulated a death toll of an estimated 230,000 computers in over 150 countries, businesses and security professionals have been left with no alternative but to confront the issue of cyber security and hackers. We discuss these matters and more with Milestone's APAC Sales Vice President Mr. Benjamin Low and CrowdStrike's Vice President of Technology Strategy – Mr Michael Sentonas.

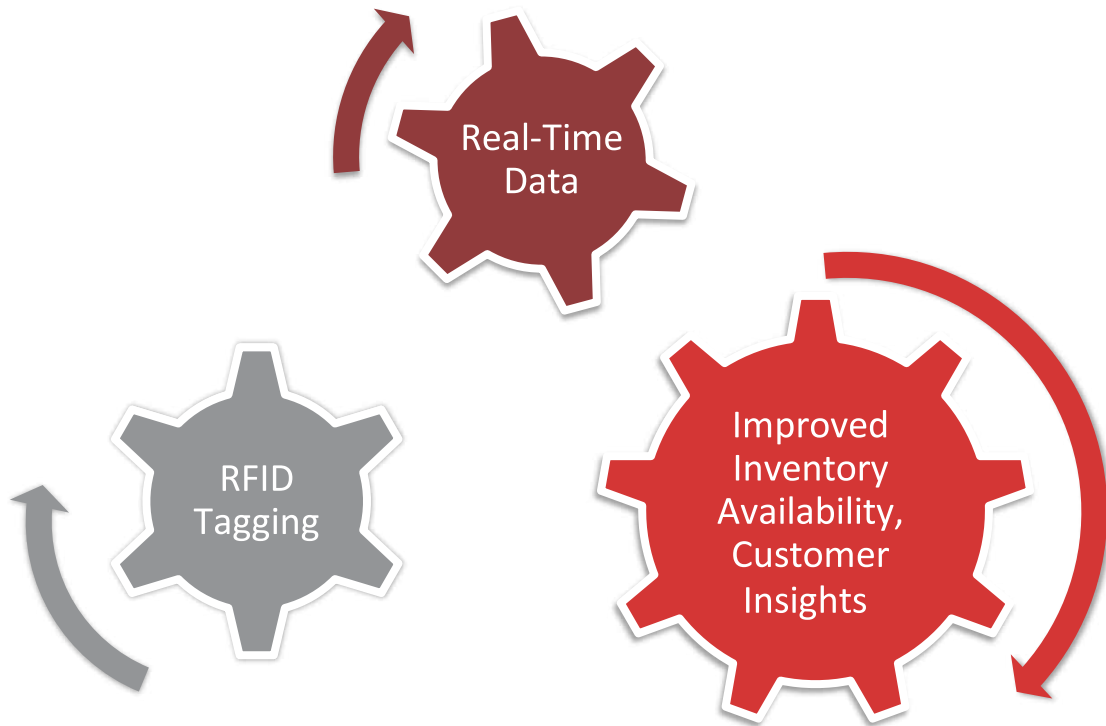
We conclude this issue with a commentary on the future of security in the form of Robots designed to protect both businesses and residences as well as complement the efforts of security personnel all while withstanding environmental elements. Yes it is true that we are on the verge of a new era in which the fantasy of robots working hand in hand with humans is no longer a Steven Spielberg concocted dream. This merging of the physical and the digital will alter the industry in both positive and negative ways but the journey of innovation will be interesting nonetheless.

I certainly hope that this issue inspires and ignites your imagination as it did mine when I was in the process of compilation. With the dawn of the digital era and the impact of IoT on the security industry, SST looks forward to keeping you updated on all the latest trends and stories in the issues ahead.

Melissa T
Editor



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AMICO Security Presents the Ultimate Multi-Layered Border Solution

Birmingham, Alabama, USA - AMICO Security, the nation's leading manufacturer of high-security perimeter systems, is introducing to the market the ultimate multi-layered border security solution. This solution combines the latest in radar surveillance technology with high security layered, double walled fencing and state of the art detection technology to create a comprehensive border solution.

According to an AMICO Security spokesperson, the company believes the best approach is what it calls a layered approach, which AMICO Security has been developing for quite some time. This begins with a high security physical barrier fence or wall, which can be dual layered to make it extremely difficult to breach. When this barrier is combined with the latest in radar and detection technology, it creates a formidable barrier that is extremely difficult to penetrate.

The multi-layered approach by AMICO Security comes at a pivotal time as the United States is looking to greatly expand the border wall between Mexico. In addition to proving to be an ideal solution to border security needs, a multi-layered solution can also be ideal for critical infrastructure protection for utilities, government facilities and airports.

The multi-layered border system involves a combination of the following systems:

Radar Systems

Using GroundAware® Radar, the system can detect approaching targets up to 3 kilometers. The system then classifies the approaching target as either human, animal, aircraft or vehicle.



Specific targets, such as animals, can be programmed not to trigger an alarm. Once an alarm is triggered a thermal imaging PTZ camera will key on the object, and border guards can be notified well in advance.

Perimeter Wall System

AMICO's AMIGUARD dual wall, double mesh system makes border penetration extremely difficult. Dual mesh allows border guards to see through to the other side of the fence as opposed to a solid wall application. In addition, it allows wind to pass through the wall which reduces wind resistance and size of the posts required, thus reducing cost. Meshes can also be configured to prevent scaling and greatly increased forced entry times. To further prevent scaling, the fence includes triple layers of barbed tape. These walls are versatile and can be constructed to meet various grade changes and topography. The Amiguard system is also extremely simple to install.

Anti-Tunneling

To prevent tunneling, a physical barrier is installed that penetrates

underground several feet and extends several feet below the bottom of the fence system. Seismic sensors can also be added to detect tunneling at much greater depths.

Shaker Wire

The perimeter fence system can be outfitted with vibration sensors which are attached to the fence itself. When the shaker wire senses a potential breach, it set off an alarm to notify the proper authorities.

AMICO Security brings to the market extensive experience in building border walls and fences. The company is considered the largest manufacturer of Security Mesh in the world and currently has over 50 miles of fence on the United States border.

Security Mesh is an extremely cost-effective way to build a barrier while allowing border guards to see through the fence and wind to pass through reducing wind resistance. These high security meshes can be produced to meet anti-climb and cut requirements making it very difficult to breach. **SST**



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Avigilon Launches Highly Anticipated Appearance Search Technology

Avigilon expands video analytics platform with the launch of advanced search technology

Vancouver, Canada – Avigilon Corporation, provider of trusted security solutions, today announced that it has further enhanced its self-learning video analytics capabilities by introducing Avigilon Appearance Search technology immediately available with Avigilon Control Center (ACC) 6.0 video management software.

Avigilon Appearance Search, Avigilon's newest and most advanced video analytics technology, is a sophisticated deep learning artificial intelligence (AI) search engine that sorts through hours of footage with ease, allowing users to quickly locate a specific person of interest across all cameras on an entire site. It can save time and effort during critical investigations as it intelligently analyzes video data helping to track a person's route and identify previous and last-known locations.

"Historically, video surveillance searches were done on a single camera, based on time, motion and activity," said James Henderson, Avigilon's Chief Sales and Marketing Officer. "But with Avigilon Appearance Search technology, users can now easily search for all instances of a specific person across all their cameras distributed throughout a site, with the click of a button. This is designed to make searching for a person as easy as searching the internet."

"With Avigilon Appearance Search technology users can answer the critical "where" and "what" of video searches quickly and decisively," said Dr. Mahesh Saptharishi, Avigilon's Chief Technology Officer. "This is an exciting milestone in the development of Avigilon's comprehensive AI and deep learning video analytics platform, as we continue to provide customers with full solutions for a broad range of video surveillance applications." *SST*

New Password Checker IP Camera Vulnerability Solution Introduced by Viakoo at ISC West

Beta Tester Privileges Offered to Select Organisations

Las Vegas, Nevada – Viakoo, provider of the security industry's only proactive automated data verification solution, is debuting its innovative new Password Checker here at ISC West. Password Checker is an automated solution that verifies network cameras are not using default or commonly used passwords, which are a proven network vulnerability for cyberattacks. Additionally, Password Checker helps ensure compliance to many standards, including PCI, NERC, NIST, etc., which require that surveillance networks can't be compromised.

"Viakoo's new Password Checker complements our portfolio of proactive automated data verification solutions by easily verifying the integrity of network cameras' password protection," said Viakoo, CEO, Bud Broomhead. "It is a highly efficient and cost-effective solution to harden physical security systems from cyberattacks."

Viakoo Password Checker (as part of the Viakoo Predictive solution) examines HTML authentication points to test a variety of common URL entry points and frequently used passwords. Test results are reported for each camera on the network to alert system operators if they need to change some or all easily compromised passwords. Viakoo Password Checker can be run on-demand or on a scheduled basis. *SST*



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Patriot One Wins Best In Category at Security Industry Association Event at ISC West

Toronto, Canada - Patriot One Technologies Inc, developer of a revolutionary concealed weapons detection system, was recognised by the Security Industry Association (SIA) as winners of the Anti-Terrorism / Force Protection category in the New Product Showcase (NPS) component of the ISC West industry trade show and conference in Las Vegas, Nevada.

SIA NPS judges are highly skilled and experienced in security technology design and application. It is a requirement for their position. Each judge possesses a minimum of 10 years' experience in the selection, purchase and/or installation of products within the category that they are judging. The New Product Showcase is the premier platform for security professionals to evaluate new products and technologies for use in security applications.

“We are very pleased to achieve this exciting award today. Positive peer review in our industry is essential for growth, and this award in particular highlights and validates our efforts to-date,” said Martin Cronin, CEO & Director of Patriot One Technologies. “We are generating significant interest at this very important event and are already receiving congratulations and interest from around the world.”



In related news, Patriot One hosted a pair of informative panel sessions which included security experts from Canada, the USA, UK and South Africa encompassing the private and public sectors, as well as entertainment and education spaces in an engaging conversation regarding measures to deter, detect and defend against today's threats of terrorism and active shooter violence.

“As this is the largest security industry trade show in the U.S. today, we are enjoying the visibility we are achieving amongst some of the world leaders in the security industry,” continued Mr. Cronin. “I came to this event with the belief that we would find ourselves benchmarked against the best products in the market for weapons detection, and to come out on top of our category is really big news for us, our partners and stakeholders alike. We have a full slate of meetings to complete before we leave the event and look forward to following up in the coming weeks and months ahead.”

The first-of-its-kind NForce CMR1000 is an easily-concealed, cost-effective and non-invasive full-body scanning technology that is practical and safe. The device can covertly detect on-body concealed weapons (rifles, handguns, knives, grenades, explosive vests) at key access points and doorways of weapons-restricted buildings and facilities. The solution is designed to be installed behind walls, in ceilings and in floors, and may be installed to notify security professionals prior to an individual carrying a weapon into a building. In addition, the NForce CMR1000 solution can be integrated with other access point security systems to assist in locking down doors, turnstiles, elevators and other access point gating systems. *SST*

secutech THAILAND

16 – 18 November 2017
Bangkok International Trade &
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Event Highlight of Secutech Thailand 2017 – Demo Zone

In the 2017 edition, Secutech Thailand will introduce real intelligent solutions – real world scenario display creating a smart city solution experience.

The Smart and Safe City Complex demo zone will feature various popular vertical solutions in the Thai security market, such as hotel, retail, city surveillance, transportation, etc.



Secutech Thailand — Bringing "Smart" into Security Solutions

In 2017, Secutech Thailand will
showcase six theme zones to meet
the market demands:

- Security
- Smart Home
- Smart Retail
- Safe & Smart City
- Fire & Safety
- Disaster & Prevention



Target Visitors

Business nature:

systems integrators, installers, importers, distributors, retailers, developers, system designers, security service providers and manufacturers

Vertical Markets:

government, transportation, construction, enterprise, finance, telecommunication, retail, hospitality, public law enforcement

Global contact

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Nuctech Introduces Airport Security Solution at 2017 Netherlands Passenger Terminal EXPO

Amsterdam, Netherlands - The Netherlands Passenger Terminal EXPO co-sponsored by IATA (International Air Transport Association) and Amsterdam Airport Schiphol was held in RAI Amsterdam Convention Centre in Amsterdam from March 14-16, 2017. To welcome the visitors, Nuctech enriched its booth with Keyline the next generation airport security solution, Kylin the CT inspection system, trace exploder detector, and various cutting-edge products in aviation market such as Raman inspection system, MMW (millimeter wave) human body inspection system, and dual-view x-ray inspection system.

As the main product in the EXPO, the CT inspection system Kylin drew attention from customers and experts. It is featured with dual-energy spiral CT detecting and an independent DR detecting system which allow it to get HD 3D color images, sliced CT images, and DR images. This high-throughput scanning system can fit in space-constrained locations well and automatically detect explosives, liquid explosives, and drugs without the need of the passengers to take all liquids and electronics out. Improving the passengers experience while enhancing the operating efficiency of security checks, the system is ideal for airports, customs, public transit hubs, and other high-threat checkpoints, facilities, and high-profile events.

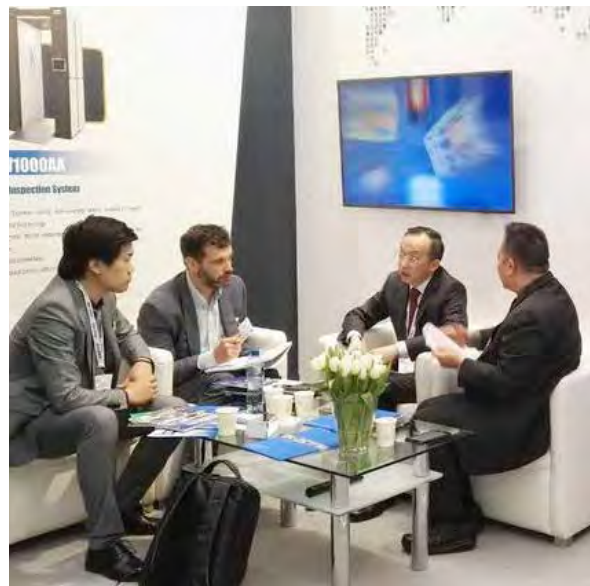
HIS Jane's Airport Review and PTW gave exclusive interviews to Nuctech's President Chen Zhiqiang during the exhibition, and Mr. Chen introduced Nuctech's latest technology and solutions regarding air safety. The launch of Keyline is actually a response to the significant reform that air security is experiencing with growing passenger throughput, changing policies, evolving threats, new technologies, and in-depth participation of manufacturers. This solution integrates the passengers experience with operating efficiency while improves security and helps the airports to reduce operating costs. To be specific, Nuctech's CT baggage inspection system has passed the ECAC 3 test which has made it a good choice for the European transportation hubs and airports in face of the coming EU 3 standard.

In regard of ground safety and insider threat, Mr. Chen put forward a risk-based and technology-driven security solution for the airports, and called on the relevant



departments to strengthen cooperation in order to cope with challenges. Nuctech would continue to increase the R&D investment, deepen the cooperation with aviation industry, and provide efficient solutions with innovative technologies.

As a world leading security solution and service supplier, Nuctech understands the importance of passengers' baggage check to national security, and is always committed to providing our customers the best aviation security solutions, the most advanced security systems, and the most thoughtful services. Currently, Nuctech's security systems have been deployed to more than 150 key airports in the globe, and have helped our aviation customers a lot in achieving qualitative leaps regarding the mode of operation. **SST**



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CEM Systems Releases Next Generation S700e IP Card Reader and Controller

Belfast, UK — Tyco Security Products, part of Johnson Controls, announces the release of the S700e Intelligent IP Reader and the companion S700 Exit Reader from CEM Systems, extending the powerful reach of CEM Systems' AC2000 access control and security management system.

This next generation IP card reader and combined controller is the ideal solution for controlling access to restricted areas or for use in areas where card activation of machinery is required. With its onboard Ethernet connection, the S700e bypasses the need for an intelligent control panel within the AC2000 system.

The user-friendly unit offers a large graphical LCD display with several easy-to-read and simple to comprehend predefined messages, such as Access Granted, Expiring Card, Lost or Stolen Card, Wrong Time, Wrong Zone and Passback Violation and icons for intuitive operation.

The soft-touch capacitive keypad on the S700e allows for dual-authentication by presenting both a card and entering an associated PIN. The unit features four analog inputs that monitor door or alarm conditions and two changeover relay outputs that activate door strikes or other equipment. The companion S700 Exit Reader, which offers the security of a bi-directional door when deployed, can be used in conjunction with the S700e Intelligent IP Reader.

The S700e master reader provides reading support for 13.56MHz smart card and 125kHz proximity technology, and is designed to handle a larger reader database for off-line card verification and alarms. The S700e can hold up to 250,000 cardholder records and up to 50,000 offline transactions. It works with a host of card technologies, including MIFARE, DESFire, iCLASS, iCLASS SE, HID 125kHz Proximity and PicoPass. A forward-thinking technology, the S700e supports IPv4 networks and is IPv6-ready. It is also rated for outdoor use, handling temperatures from -20 to 60 degrees C, or -4 to 140 degrees F, making it a versatile option in many settings.

“Building on the success of CEM Systems’ s610 intelligent readers, the next generation S700e IP Reader and S700 Exit Reader put intuitive, intelligent access control where it’s needed—at the door,” said Richard Fletcher, Product Manager, CEM Systems. *ESST*

IPSecurityCenter™ Wins 2016 Govies Award for Outstanding PSIM

The Govies Government Security Award 2016 Honors Outstanding Government Security Products

Surrey, UK - CNL Software, a world leader in Physical Security Information Management (PSIM) software, is delighted to announce that its IPSecurityCenter PSIM solution has been voted the most outstanding PSIM product in the Security Products' Govies 2016 Government Security Awards.

Sponsored by Security Products, securitytoday.com and GovSec magazines, the participation in the awards program has been strong as government security

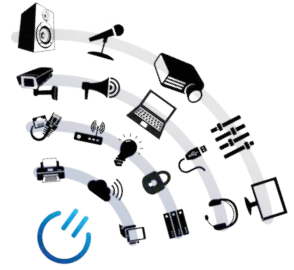
continues to be an ongoing concern.

An independent panel of judges from the security industry selected the top entries in the 2016 categories, including IPSecurityCenter PSIM, based on criteria including Features, Innovation, User



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“In light of events taking place around the world today, we encourage manufacturers to show their products to the government sector and the security industry at large,” says Ralph C. Jensen, editor-in-chief of Security Products magazine. “The government takes an active leadership role in providing security at major venues nationwide, including airports, railway, and public transportation. We are very grateful to all entrants who take the time to share with us and our readers the latest security technologies.”

“We are delighted to have been chosen for the top award in the Govies PSIM category and for the recognition of the key role that PSIM is plays in securing our citizens, commerce and infrastructure,” says Mike Mostow, General Manager – Americas at CNL Software.

“Homeland defense, safe cities, government buildings and mass transit security all vary in the technology they deploy and the challenges they face, but they all have the requirement for complete situation awareness and the need for centralised control of processes. This is continuing to be a fast growing segment and one we are proud to be supporting.”

Providing a single view of all of an organization’s mission critical security systems, IPSecurityCenter helps increase emergency preparedness, delivers intelligence to the point of need and provides process guidance to enhance security responses. Beyond the time saving and efficiency benefits of automation, IPSecurityCenter also enables processes that are essential to any modern security department; including scheduled reporting, dashboard overviews, incident logs, continuous process improvement initiatives, training drills, system healthcare checks and much more. *SST*

Sultanate of Oman Selects Safran Identity and Security to Deploy A Single Multi-Biometric Platform

Paris, France - Safran Identity and Security, a global leader in identity and security solutions, has been selected by the Sultanate of Oman to consolidate within a single multi-biometric platform the country’s multiple identification systems. This sovereign platform, to be operated by the Sultanate, has been launched to support both public security and the development of tourism in the country.

A pioneer in deploying biometric solutions in this part of the globe, the Sultanate of Oman has been a historic partner of Safran Identity and Security. For example, the company provided the local authorities with the AFIS (Automated Fingerprint Identification System) system, as well as the identification system for expatriate workers through iris recognition.

Safran identity & Security’s ABIS (Automated Biometric Information System) platform will enable the various solutions to communicate with each other and manage all the biometric databases (fingerprint, facial recognition, iris and DNA) within a unified system. The ABIS will provide biometric services - enrollment, identification, verification – on behalf of all national systems involved in ensuring the security of the Sultanate: civil identity, public security, border control and criminal identification.

“We are very honored that the Sultanate of Oman has renewed its confidence in Safran Identity and Security after an intense competitive bidding to deploy this unique system in the world. This contract allows us to consolidate our relationship with Oman and strengthen our local presence through sustained investment, especially in the area of high technologies,” said Samuel Fringant the Executive Vice President of the Security Division at Safran Identity and Security. *SST*





Siquira Becomes TKH Security Solutions

Gouda, Netherlands – As of the first of April 2017, all security vision products from Siquira will be branded TKH Security Solutions. This change comes as a direct response to the large number of partners and end users that utilise Siquira products and services, and want to engage in small, medium and large scale security and safety projects with the TKH Group.

“The TKH Security Solutions brand is nothing new. We have delivered many projects, including several high-level projects under the TKH Security Solutions name over the last few years,” explains

Dr Magnus Ekerot, CEO of TKH Security Vision Group. “What is new is that we are now taking the final step in branding and collecting our products under this strong identity name, to show our partners and end users our commitment to them and their work.”

Creating a Bigger Impact – Together

TKH Security Solutions is a cluster of five highly specialised security companies. Together their individual know-how and expertise combine to offer total turnkey security solutions for a wide range

of applications, partners and end users. One high-profile and successful example of the strength and versatility of TKH Security Solutions, is the security project of the International Criminal Court in The Hague.

“I believe that by changing the name in combination with our strong product and solutions portfolio, TKH Security Solutions will have an even bigger impact within the security and safety marketplace. Nothing changes for our partners and customers, except for gaining an even stronger brand name with greater possibilities,” concluded Ekerot. *SST*



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Bosch Emphasises Intelligence, Integration and Increased Revenue for Customers at ISC West

Las Vegas, Nevada, USA - At ISC West 2017, Bosch Security Systems will introduce new intelligent devices, demonstrate the power of integrated security and communications solutions, and highlight products and services to help customers increase revenue. Visitors to the Bosch booth will see a completely new portfolio of IP cameras, video analytics that extend surveillance beyond security, services that create recurring monthly revenue opportunities for dealers, and an innovative all-in-one wireless multi-sensor that can be configured as a door/window contact, water or tilt sensor.

“With Bosch technology and services, integrators can design intelligent systems that better mitigate risk, enhance facility control, and provide business benefits outside of their customers’ traditional security needs,” said Brian Wisler, President of Sales – North America, Bosch Security Systems. “Our solutions help integrators provide added value to customers by improving safety, increasing efficiency, and delivering business insights based on video data. These capabilities give our channel partners advantages over their competitors, helping them win business and drive growth.”

Intelligent Devices

At ISC West, Bosch will introduce a renewed portfolio of IP cameras, all featuring video analytics at the edge as a standard feature. The IP 4000i, IP 5000i, and IP 6000i fixed dome, box and bullet cameras provide indoor or outdoor, day or night, discrete or visible video security. And with built-in video analytics as standard, they offer the ability to



start repurposing captured video data for uses other than security alone. The AUTODOME IP 4000i, 5000i and 7000i locate, track and zoom in on objects quickly and easily. With a resolution of 1080p and 30x optical zoom, users can easily identify objects over large distances and have total control over what they choose to see.

MIC IP moving cameras combine a rugged design with built-in Intelligent Video Analytics that is specifically designed for the most demanding environments. Even in the most extreme conditions, video analytics can further improve the level of security or enable the video data to do more than security alone. The new MIC IP fusion 9000i camera offers a unique feature in terms of video analytics: metadata fusion. It fuses the metadata of the camera’s built-in optical and thermal imager, providing users with full situational awareness regardless of the video stream that is being watched. For example, even if the source

of an alarm is not visible in the optical imager stream, the thermal imager will still detect it and alert the user—helping them focus on unseen things that need attention. Another innovation offered by both MIC IP models is video analytics in motion. An operator is alerted, or the camera’s Intelligent Tracking feature is triggered, the moment a moving object or person is detected while the MIC IP camera is panning, tilting or zooming.

By offering built-in video analytics as standard, Bosch enables customers to interpret video data at the source and to re-assign it to help them make smarter business decisions. In the future, video analytics will help customers achieve up to 100 percent utilization of the huge amounts of video data collected using the hidden potential of video to monitor presence to reduce utility bills, identify patterns in customer activity, and much more.

In addition to video analytics as

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standard, the new portfolio of IP cameras includes the latest intelligent bitrate management techniques combined with H.265 compression to reduce bitrate by up to 80 percent. The cameras also feature various software and hardware measures, such as a built-in Trusted Platform Module, to keep video data secure.

At the show, Bosch will also introduce In-Store Analytics, a solution that uses intelligent Bosch IP panoramic cameras to give retailers valuable insights on store traffic. This cloud-based service uses position data generated by the cameras to provide detailed information on how shoppers travel through a store and interact with the displays. This helps retailers evaluate the performance of displays to give them the information they need to increase customer engagement with products and drive additional sales.

Increase Revenue with New Services

Bosch will also highlight its Installer Services designed to help customers build their recurring monthly revenue. These include cellular data plans for intrusion and fire control panel communications, services for home or business automation, and a Remote Connect Cloud service for remote programming and end user app connectivity for B and G Series integrated security solutions. Installer Services from Bosch help dealers maximize revenue and streamline operations with the ability to manage the services through an intuitive web portal.

A Remote Portal service also makes it easier to connect to Bosch cameras and recording solutions. Using Remote Portal, dealers can increase the efficiency of technicians and create chargeable services for monitoring, maintaining and configuring these devices remotely.

As a result, technicians spend less time and money traveling to customer sites.

Integrated Security and Communications Solutions

ISC West attendees will learn how Bosch B and G Series Control Panels enhance security with intrusion and fire detection, access control, Bosch IP camera integration and remote command and control with free apps. Integration with Z-Wave, ZigBee and Wi-Fi devices for home or business automation is possible with the G450 Gateway, being previewed at the show.

Leveraging the full capabilities of B and G Series Control Panels enables email and text notifications for event alerts. Integration with Bosch IP cameras allows viewing images of system events, such as a video snapshot of the person who disarmed a system. Bosch IP cameras with video analytics can also activate points on the security control panel when alarms are triggered.

Integration with Bosch public address offerings, such as PAVIRO public address and evacuation systems or PRAESIDEO digital public address and emergency sound systems, is beneficial for initiating pre-recorded messages based on security events. Activating a pull station can automatically trigger the public address system to play emergency announcements through a loudspeaker as well as notify facility personnel through two-way radios using the Telex Radio Dispatch system (IP-224).

Monitoring security data is simplified with the Bosch Video Management System. Operators can view cameras and control panel status or events on a graphical map. They can also trigger messages or live speech to the public address system and control streams and

doors, and arm and disarm the panels via the software. To enhance security around the clock, central stations using Video Monitoring Services from Bosch can verify alarms through live and recorded video before dispatching authorities. Integrated systems are possible whether customers choose a complete Bosch solution or use software from another provider. Bosch IP cameras and control panels are compatible with solutions from a range of industry partners.

Innovative Wireless Sensors

Bosch continues to expand its family of wireless detectors for use in ZigBee compatible security and home automation systems. The portfolio now includes two motion detectors, a Pet Friendly PIR as well as the only ZigBee certified Pet Friendly TriTech on the market, using a combination of PIR and Doppler radar to minimize false alarms. A new door/window detector is also being launched. This innovative device supports the widest magnet gap width of any door window contact, providing installation flexibility and maximum false alarm immunity from misalignment or changing installation conditions. With a built-in Microelectromechanical systems (MEMS) based sensor, the same compact device can also serve as a tilt or water sensor to provide dealers with the ability to detect leaks or floods, freezing conditions, and more. Every transmission from these detectors also includes temperature and lighting condition readings for use in improving the energy efficiency of home automation systems. In addition, a new glass break detector being previewed at the show brings Bosch's industry-leading false alarm immunity and detection performance acoustic based signal processing technology to a ZigBee compatible device. **SST**



Honeywell Expanding Lyric Smart Home Platform in 2017

Minneapolis, USA- In 2017, Honeywell announced it will continue expanding its Honeywell Lyric family of products as well as “Works with Honeywell” platform program. After showcasing its products at various trade shows this past month (i.e. Consumer Electronics Show (CES) 2017 and International Builders’ Show (IBS) 2017), Honeywell has been promoting their vision of a new flexible and dynamic connected home experience.

Honeywell Lyric product line includes Wi-Fi connected thermostats and sensors as well as indoor cameras and whole home security systems. Their platform provides consumers with easy-to-use, connected solutions – ensuring homeowners can securely and easily control their homes in the ways most important to them. Because people and their homes are unique, the “Works with Honeywell” program gives more flexibility than ever before to customise and connect home technologies. If someone has a Honeywell thermostat and wants to change the temperature using just a voice command, or uses smart lighting and locks and wants to sync them with a security system, “Works with Honeywell” makes it possible. Partnerships with some of the biggest names in technology – from Apple and Amazon to Samsung and Lutron – give consumers the ability to connect a wide collection of products together, personalising their connected home experience. From comfort and control, to savings and safety, even more connections are in store for this year.

In addition, Honeywell added two new cameras to its Lyrics line, Lyric C1 and C2 Wi-Fi Indoor Cameras. These DIY security cameras will help keep an eye on what’s going on inside your smart home, day and night. They provide livestreaming, recorded events, screenshots and can send alerts when something is seen or heard inside your home. The cameras also have built-in microphone which allows it to hear any distinct sound (like baby crying or smoke alarm.) GearBrain will be testing these new cameras in the coming weeks and will provide a more in-depth review on them for you. In the interim, we like what we see.

Honeywell also announced its Lyric Home Security and Control System, a professionally installed and monitored home security system, is the first one to be connected with Apple HomeKit. You will now be able to control your Lyric Home Security system when connected with Apple HomeKit and Siri. And if you have smart lights, doors, thermostats and other connected devices in your smart home, these too can be controlled by Apple HomeKit app. **SST**

Genetec Inc. Integrates ShotSpotter Gunshot Detection Technology in Security Center

Access to real-time video and data related to gunshot incidents within Security Center shortens emergency response time

Montreal, Canada - Genetec Inc., a leading provider of open architecture security and public safety solutions today announced that it has integrated ShotSpotter gunshot detection technology from SST Inc., into its unified IP security platform, Security Center. Thanks to this integration, police departments and security professionals will be able to receive more actionable information, gain rapid access and detailed location insights when a gunshot situation occurs.

When 9-1-1 calls are made to report a gun shot, oftentimes the information provided is inaccurate, or insufficient. Without knowing exactly where to respond, police can waste valuable time and resources driving block by block looking for evidence as victims lack aid and criminals escape the scene. ShotSpotter uses wide-area acoustic surveillance that automatically gets activated when gunfire occurs, providing comprehensive outdoor coverage on campuses and in complex urban geographies. ShotSpotter sensors and cloud-based analysis software triangulate and pinpoint the precise location of each round fired within seconds, the number of shots fired and provide an immediate gunfire alert with an audio clip. Detailed incident data is immediately sent to SST’s Incident Review Center (IRC), a secure data processing and alert validation facility, where acoustics experts analyze the data and qualify the incident in real-time 24/7. Once validated, an alert is sent directly into Security Center, all in under a minute.

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“Detecting, precisely locating, and alerting police within seconds to gunfire is key information used by law enforcement and security personnel to more effectively protect and serve communities. Integrating the real-time gunshot data with the video capabilities provided by Genetec is a game-changer that enhances the information police receive, ultimately helping them solve crimes, deter future crimes, and make communities safer; which is a goal we all share,” commented Damaune Journey, VP Security Solutions at SST Inc., the global leader in gunfire detection and location technology.

Once the alarm is triggered within Security Center upon gunshot detection, operators can quickly access video and other related data surrounding the location of a gunshot alert, and immediately

visualize it on Security Center maps, leveraging the dynamic visualization capabilities of the Security Center Plan Manager. Pan-tilt-zoom (PTZ) cameras are instantly aimed at the gunshot location, and bookmarks are automatically created on the Security Center timeline. Operators can then follow active shooter events in real-time through the map interface and live video to make informed decisions.

Security Center is also able to display relevant metadata on the map, such as type of gunshot, number of rounds, address, district, etc., as well as give operators access to detailed reports of past alerts for statistics and data analysis purposes.

As a result of this integration, law enforcement officers and security teams will also benefit from improved tactical intelligence. They

will be able to get to the exact scene of the incident faster, stay safer and have the ability to engage the shooter, interview witnesses and collect key evidence.

“This integration is beneficial for many of our customers who require maximal awareness during emergency situations. Their security operators can now react faster to gunshot incidents and get access to video and metadata surrounding the event. We believe that this technology can greatly improve the safety of communities, and ultimately save lives,” commented Bob Carter, Business Development Manager at Genetec Inc.

This integration is expected to be available worldwide from Genetec Inc. and its partners by Q2 2017. For more information, visit: [Genetec City-Wide Surveillance.SST](#)

Systech Anti-Counterfeiting Technology Solution Protects Brand Integrity and Consumers

Pinceton, New Jersey, USA - Systech International, a global technology leader in brand protection solutions, today announced its Spring 2017 Update to UniSecure™. Systech UniSecure is the only proven, non-additive product authentication solution that creates a unique identifier from an existing barcode or QR code. This electronic ‘fingerprint’ cannot be copied or duplicated no matter how clever the counterfeiter. Furthermore, the solution requires no changes to existing packaging, offers fast implementation, and allows real-time authentication via any smartphone.

The enhancements in this update provide greater visibility to an item’s path through the supply chain, plus better collaboration between brand owners and consumers. UniSecure can now not only trace an item throughout the supply chain and confirm or deny its authenticity, it can also capture, share, and update identity information specific to that item, such as status, geo-location, or shelf placement.

According to Jim Lee, Senior Vice President of Product Management at Systech, “The new features were driven by our customers’ need to have a 360-degree view of their supply chain. UniSecure can communicate the status of an item throughout its lifecycle, and it also allows a brand owner to learn whether an item was diverted, stolen, or dispensed. Patient and consumer safety is now assured using your smartphone – anytime, anywhere.”

UniSecure delivers immediate authentication at a fraction of the cost of alternative solutions. The additive nature of other product authentication solutions requires the re-engineering and/or re-design of packaging, processes, or manufacturing lines. UniSecure leverages existing packaging and requires no modifications to production lines or business processes, saving time to implement and cost to deploy.

“Counterfeiting is a global problem – one enabled through legitimate supply chains and ecommerce

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marketplaces. Fraudulent products continue to enter the market undetected, and companies are realising any label or barcode (even those serialised) can be copied. At Systech, we can make a barcode much smarter than it is today,” states Lou Arace, President and Chief Operating Officer at Systech.

He continues, “Not only is our solution more cost-

effective and easier to implement than additive methods like RFID tags, holograms or foil, UniSecure can empower customer relationship marketing and ultimately improve patient and consumer safety.”

Systech UniSecure is currently being used by dozens of leading pharmaceutical and brand-conscious companies around the globe. **SST**

Adaptive FPGA-Based Video Processing Platform Developed for UK Based Defence Science and Technology Laboratory

RFEL teams with Plextek and 4Sight Imaging to create new, hybrid FPGA System on Chip based, self-optimising video enhancement solution

Newport, Isle of Wight, UK - UK MOD's Defence Science and Technology Laboratory (DSTL) has contracted a team, led by Plextek Services Limited and including RFEL Limited and 4Sight Imaging limited to tackle the problem of performing rapid evaluations of real-time image processing functions and to simultaneously demonstrate the latest adaptive capabilities that modern FPGA-based system-on-chip architectures can deliver to defence and security surveillance applications, all within a minimised size, weight and power footprint.

DSTL can use this platform to solve complex defence vision and surveillance problems, facilitating the rapid incorporation of best-in-class video processing algorithms while simultaneously bridging the gap between research prototypes and deployable equipment.

Peter Doig, Plextek's Defence Business Manager, said, “RFEL and Plextek have brought together their expertise in sensor exploitation and real-time embedded video

processing, along with DSTL and 4Sight's adaptive algorithms, to create a single, environment that delivers a robust proving tool. This allows a diverse range of enhancements to be experimentally evaluated, using an optimised yet intelligent and flexible architecture that can be re-used in deployable field equipment.”

As video processing solutions become increasingly complex and sophisticated, a new problem has emerged - the need to optimally configure FPGA-based component functions and algorithms in real time, in rapidly varying conditions. To crack it, the team will deliver a solution that incorporates a software processing layer, previously developed for DSTL by 4Sight Imaging, that performs the adaptation of the control variables to optimise the real-time video enhancement, replacing the need for a man-in-the-loop.

Using video metrics benchmarked against extensive human trials, the CPU-based configuration management layer can out-perform a human operator. Furthermore,

all of the processing is performed at source, in real-time, thereby reducing off-board bandwidth and potentially alleviating downstream processing requirement. The whole is implemented in a low Size Weight and Power (SWaP) video enhancement platform and delivers a capability that never tires or misses the action, irrespective of the time of day, or the prevailing weather.

This innovative work draws together the best aspects of two approaches to video processing: high performance, bespoke FPGA processing supporting the computationally intensive tasks, and the flexibility (but lower performance) of CPU-based processing. This heterogeneous, hybrid approach is possible by using contemporary system-on-chip (SoC) devices, such as Xilinx's Zynq devices, that provide embedded ARM CPUs with closely coupled FPGA fabric. The use of a modular FPGA design, with generic interfaces for each module, enables FPGA functions, which are traditionally inflexible, to be dynamically re-configured under

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software control. Critically, to support remotely deployable, real-world applications, the system will also manage its own power budget, adapting the processing solution to maximise time delivering operational benefit.

Dr Alex Kuhrt, RFEL's CEO, said, "Image processing techniques can have a huge number of degrees of freedom, with a wide range of possible parameter settings. Usually, this calls for a high level of user expertise, in order to set up a vision system. For security or defence applications, where conditions can change rapidly, a system may also require frequent tuning of those video controls to re-optimize the image. Commercial camera systems already recognise this and deliver

a point-and-shoot experience, but military users have more specialised needs for their imagery, needs that are not well served by commercial or broadcast video enhancement products. Those users are typically operating under high pressure: they need a system that performs the right optimisation, automatically, to deliver the right mission capability, and crucially, never gets tired of doing so."

Kuhrt adds, "The aim of providing such a fully automated, self-optimising, real-time video processing just got one step closer. This approach can continuously adjust to the scene dynamics far more accurately and rapidly than a human could ever achieve. Add to this the ability to balance the

optimal image quality with the bandwidth available and the power available and this technology can be exploited to provide a truly game-changing approach to high-performance video situational awareness."

Later, RFEL plan to introduce this technology as an enhancement to their powerful HALO video platform. Coupled with their tried and tested video processing algorithms such as Stabilisation, Distortion Correction and Non-Linear Contrast Enhancement, this will provide a rapid product development approach for commercial designers addressing the most demanding vision applications in the security, military and aerospace domains. **SST**

Gemalto Accelerates IoT Adoption and Innovation in Japan

Amsterdam, Netherlands - Gemalto, the world leader in digital security, announces it has been selected by SoftBank Corp. ("SoftBank") as a partner for On-Demand Connectivity (ODC) services enabling both consumer and industrial machine-to-machine (M2M) IoT connectivity and deployment of value added applications and services.

Under the collaboration, Gemalto will supply its Remote SIM Provisioning platform, allowing SoftBank to remotely manage initial connectivity and subscriptions throughout the device's lifecycle. This will give the Japan based mobile network operator a competitive edge in connecting expanding digital devices, such as connected cars, wearables, traffic monitoring systems, or smart meters. Gemalto's subscription management platform also eliminates logistics hurdles for OEMs, mobile operators and service providers, and enhances the user experience over the long haul.

IoT has been experiencing great momentum in Japan since the formation of the IoT Acceleration Consortium. According to the Japan External Trade Organisation (JETRO), domestic IoT revenue is forecast to reach US\$130 billion^[1] this year, with a compound annual growth rate (CAGR) of 11%. JETRO expects IoT

expenditures and investments in Japan to cross the US\$100 billion mark by 2018, growing at a 17% CAGR. The present top-spending sectors are manufacturing, transportation, and utilities.

"Gemalto is a tier one strategic partner with whom we have worked on many other successful innovative projects. With the industry fast moving to IoT, Gemalto's rich and wide-ranging portfolio of IoT products and solutions made it a natural choice for us," said Hironobu Tamba, Division Head of the Service Platform Strategy and Development Division of Softbank. "As the number of connected devices grows each day, and the demand for flexibility and seamless user experience soars, we believe ODC is a game-changer for the telecommunications industry."

"SoftBank is a global leader and key innovator in the mobile and IoT ecosystem," said Sashidhar Thothadri, Senior Vice President of Mobile Services and IoT, South Asia and Japan at Gemalto. "We are very excited to be selected by SoftBank for this prestigious program and with our experience of deploying more than 20 projects worldwide, we are confident of delivering a solid platform to boost new revenue streams and create a unique and valuable experience for customers." **SST**



Africa's Largest Selection of Targeted Security and Fire Products Under One Roof at Securex 2017

Johannesburg, South Africa - Everyone has something they need to protect. For some it is personal and business material assets, for most it is the safeguarding of family members and personnel, and for others it is the protection of sensitive data. Finding solutions that are simultaneously budget-friendly and reliable is often an arduous task. Securex 2017, to be held at Gallagher Convention Centre from 30 May to 1 June, provides businesses and private individuals with a common platform for all security- and fire-related solutions all under one roof.

“With over two decades of bringing together industry’s leading suppliers of security and fire technologies and services with risk and security market representatives, Securex has carved a niche as the go-to event for risk alleviation solutions. We have a very strong line-up of exhibitors at this year’s event, covering a multitude of security and fire aspects,” says Joshua Low, Securex Event Director at Specialised Exhibitions.

Remote monitoring is addressed by Keystone Electronic Solutions’ remote site management system (RSM). The company will be showcasing Project V – a stream on trigger solution that provides centrally managed video surveillance, triggered either through security events or alarms, or via a video-on-demand interface. The platform provides digital video recording (DVR) which archives either on the central Project V server or at the remote site. Integration with customer systems, such as network management systems, access management systems, trouble ticket management and reporting tools, can all be provided through an open integration Application Program Interface (API).



Paxton’s Net2 Entry Touch Panel is the latest addition to the company’s door entry system. The new panel comes with a host of premium features, including a quality 7-inch colour touch screen and personalisation options, making it suitable for more sites than ever before.

IT solutions from Potevio International include LTE base stations, vehicle server, Ethernet switch, network management and dispatching integration client, digital trunking outdoor base station host, TETRA terminals and a wireless communications system solution for rail transportation and integrated public security system which incorporates a commanding and dispatching solution.

Procore Trading’s Intimus 9000 Degausser uses most modern APT technology to erase information from hard drives. The Intimus 9000 produces an erasing field many times stronger than those produced by the read/write heads in hard drives and tape drives. The field strength, along with the encompassing magnetic field, ensures the data is no longer recoverable by computer or laboratory attacks. In addition, the INTIMUS 60 CC6 is a Level 6/ NSA, high-security shredder with advanced i-control technology,

automated lighting/reverse and forward functions.

Mul-T-Lock®’s key and patented 20 telescopic-sizes pin system; mobile biometric reader; facial recognition systems; intelligent asset tracking; all-in-one digital video recorder; BN Soft Evardy S1 Black Box; Mobi-Black Box; rugged mobile DVR; surveillance cameras; T&A; vehicle security systems; RFID hotel locks and accessories will all be showcased at Securex.

ViRDI is launching the next generation of ViRDI biometric terminals. The AC2x00 series IP65 rated terminals, a new proximity card reader, together with the UNIS V4 Command and Control software, provide a formidable access control and T&A solution.

TimeTec Patrol provides a way to manage the guards patrolling business premises effectively. Using Near Field Communication (NFC) and Cloud computing technology to provide security firms with an effective patrolling app on Android NFC-infused smartphones, the app also allows the patrolling guards to report incidents, send photos, provide updates in real-time or request an S.O.S distress message to be sent to the manager in charge to maintain high levels of security at all times.

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Axis will have various new products and technologies on display at Securex 2017. Some of these include the AXIS Q6055-C PTZ camera which provides the highest video quality and performance in environments such as deserts, where high ambient temperatures and solar radiation require cameras to operate in extreme heat. The AXIS Q1659 network camera offers ultra-high image resolution for surveillance in superb detail at 8 frames per second. The IP66-rated, outdoor-ready AXIS Q87 Bispectral PTZ network camera series comprises the AXIS Q8741-E (30x optical zoom and focus recall) and the AXIS Q8742-E.

Easi-card makes and supplies printed and non-printed plastic cards for the security access ID, banking and retail industries. The company stocks a number of access ID blank cards including MiFare 1k, 4k, DesFire Ev1 8k, 125 kHz prox and the whole range of HID cards and credentials. The company also



stocks and offers the full range of Datacard card printers and supplies. Upcoming new products from ELID include ER929 Shake Thru' Mobile Access multi-technology reader, perfectly suited for car park barrier access applications with an extended reading range of up to 5 metres for both smartphones or long-range active tags. In addition, the Sphere is an integrated security system suitable for organisations that demand high-level access points and input and output points. It is equipped with high-level encryption on TCP/IP local area

network infrastructure.

In addition to these and other high-end technologies and services, popular visitor attractions at Securex 2017 will include the Securex Seminar Theatre; the New Products Display; the FPASA InFIREs Workshop; the ESDA breakfast and the SAIDSA Techman Competition. For the first time, Genesis K9 Group (GK9) is hosting a stand with live demonstrations of highly trained security and detection dogs.

Also new to Securex 2017 is the launch of a technical training component. Two morning and two afternoon sessions covering various topics such as Surveillance for the entrepreneur (targeting end users and installers), IP surveillance and remote deployment (targeting entrepreneurs), Storage know-how (targeting installers), and IP convergence possibilities and solutions in industry (targeting installers and end users), have been scheduled.

Qognify Helps Navi Mumbai in the Making of a Safe City

The planned township is utilising the latest technology to ensure safety and security

Pearl River, New York, USA – Qognify, the leader in big data solutions for physical security and operations, today announced the successful implementation of its market-leading Safe City solution in Navi Mumbai, a planned township that was established to handle the population overflow from the overcrowded and ever-growing city of Mumbai. Together with CIDCO (City and Industrial Development Corporation), the agency established for managing the new city) and system integrator WIPRO, Qognify has

designed an integrated and holistic solution that helps Navi police to maintain law, order and safety.

As a planned township, Navi Mumbai officials have the benefit of operating in a modern environment, allowing to maximise Qognify's Safe City solution. At the core of the solution are Qognify Situator, an advanced Situation Management platform, and Qognify's Video Management Solution, which controls the hundreds of surveillance cameras throughout the city.

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With the solution's implementation, the city has gained the ability to improve traffic management, deter criminal activity, effectively manage response to events, and resolve investigations efficiently:

A central command center is using the platform to monitor entry and exit points of the city, toll points, traffic junctions, accident prone road sections, subway and railway stations, schools, key residential areas, open markets, and key utility infrastructure areas such as electrical substations and the main water supply lines.

Special "Emergency Communication Boxes" act as "panic buttons" and allow people to generate alerts and communicate directly to the control room in case of emergency.

Qognify's video management solution provides high quality video feeds. Smart integration with Agent Vi's video analytics solutions enables immediate detection and extraction of security and safety incidents from surveillance cameras throughout the city. This integration enables the triggering of real-time, automatic alerts of incidents in Qognify Situator, that in turn, generates the appropriate operating procedure and response plan for

the operators to act upon.

Situator provides a unified, operational view of the city by integrating all the components of the solution, while providing advanced collaboration capabilities for field personnel who are able to send real time images as well as videos to the control room with the type of the incident at hand and the GIS coordinates of the field respondent.

"The Navi Mumbai security program goes far beyond a CCTV system," said Mr. Soma Vijayakumar, CIDCO. "It is a smart solution that integrates video, emergency response, traffic control, license plate identification and more. Qognify is the core important element of this platform, providing a solution which is among the most modern and advanced available anywhere."

"Navi Mumbai has embarked on a remarkable program which will enhance the safety and security of its citizen, visitors and assets," said Moti Shabtai, Qognify's President. "We are proud to be a part of this multi-solution, multi-agency project that fulfills the vision of the city authorities to provide a security and safety to its constituents. **ESST**

Sielox Creates Powerful Security Management System with Layered Access Control and Lockdown Solutions

Las Vegas, Nevada, USA— Over the past decade, layered security has developed into a distinct and widely-adopted security strategy. In the access control realm, Sielox LLC has pioneered the development of integrated and layered solutions that provide increasingly effective, convenient and intelligent security management systems.

Sielox's comprehensive access control portfolio, featured here at ISC West (booth # 6103) addresses complex security challenges with innovative layered access control and lockdown systems that provide better control and response to problem situations. Among the featured highlights are

the CLASS™ (Crisis Lockdown Alert Status System) emergency notification and lockdown solution; the Pinnacle Advanced access control solution; and the 1700 Intelligent Controller that fully integrates with Schlage® AD, NDE and LE wireless locks. Also featured is a new Lock Toggle for the 1700 Controller that allows users to lock and unlock doors without a second credential to override pre-set schedules.

"Our layered access control and lockdown systems provide security professionals with a complete set of tools they can deploy to enhance their security operation," said Karen Evans, Sielox LLC President and CEO. "From schools to hospitals to office

complexes, these solutions provide management with the protection they need, and employees, students and visitors with the peace of mind they want."

Sielox layered control and lockdown systems have been successfully deployed in facilities across the country, including Washington Township Public Schools in Washington Township, New Jersey and Upper Township Schools in Upper Township, New Jersey. The decision these school districts made to deploy multiple security layers – specifically control of interior and perimeter doors via Sielox's innovative Pinnacle access control system and the 1700 Intelligent Controller integrated with

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Schlage wireless locks and alert level lockdown via Sielox CLASS – has been very beneficial from a peace of mind, security and cost standpoint.

“We were looking for the best solution to handle a lockdown situation at the three schools in our district when we heard about the deployment of Sielox and Allegion products at Washington Township Public Schools,” said Vincent Palmieri, Superintendent, Upper Township Schools. “Given the fact that we also wanted the ability to

lock the perimeter and interior doors of each school, we met with Sielox to talk about the capabilities of their Pinnacle access software and 1700 controllers, coupled with the Schlage NDE wireless locks.”

Sielox took the opportunity to introduce Mr. Palmieri to the company’s CLASS (Crisis Lockdown Alert Status System) emergency notification and lockdown solution during their meeting, as it would inevitably be the best means to help Upper Township Schools round out

their new system.

“We were blown away by CLASS and how it works with the locks. With this layered security system in place, we can lockdown the building, change alert levels when needed and communicate with local law enforcement in real time. Likewise, we can warn school personnel who have left the building prior to the lockdown through the use of strobe lights that we had installed that change color to alert everyone that the schools are in lockdown.” **SST**

OnSSI Integration with Jemez Technology Improves Perimeter Surveillance Effectiveness

End-to-End Solution/Camera/VMS Solution Enhances Threat Detection Capability

Pearl River, New York – OnSSI’s partnering initiative with Jemez Technology makes perimeter video surveillance solutions employing AXIS cameras even more effective in protecting critical assets and infrastructure.

The Ocularis 5 VMS platform’s open architecture enables integration with the Jemez Eagle-i Edge® solution and AXIS cameras to deliver a complete end-to-end solution. “The integration of Ocularis with Jemez software is a best-in-class fit for security management tasked with securing wide-area, long-range environments,” said Mulli Diamant, VP of International Business Development, OnSSI. “OnSSI’s ability to embrace technology innovations from other leading manufacturers is an important factor in our continued ability to deliver cutting-edge VMS solutions for professional security applications and beyond.”

Jemez Technology, established by former engineers and scientists from the Los Alamos National Laboratory (LANL), provides advanced area and perimeter surveillance solutions for corporate and homeland security, with emphasis on critical asset and infrastructure protection.

The company’s Eagle-i Edge on-camera analytics platform, specifically designed and optimised for AXIS camera networks, integrates with OnSSI solutions

to significantly improve threat detection capability and lower operational costs. “The integration of our Eagle-i Edge platform with Ocularis optimises system efficiency and performance,” said Ted Turner, Director of Global Sales at Jemez Technology. “Now, end users have improved management of high risk surveillance data with capabilities that enhance agility and control.” Ocularis 5 offers a unique combination of enhanced features, recording versatility, robust data security and overall stability that transcend conventional VMS solutions.

Recent additions to the Ocularis 5 platform include: an auto-updating feature like those available on most smartphones and tablets; Smart Camera Driver technology that provides out-of-the-box support for newly introduced cameras from industry leading camera manufacturers; camera mapping via GPS on Ocularis Maps; and a new Mobile app that enables the streaming of live video from Android smartphones and devices to and from the Ocularis 5 VMS.

Ocularis is offered in three models: Professional, designed for organisations operating multiple locations with small to mid-sized camera counts; Enterprise, built for a wide range of mid to large IT-centric organisations and Ultimate, created for large organisations with extended command and control needs and recording server failover. **SST**



ULIS Launches First Stand-Alone 12-Micron Thermal Image Sensor

Atto320™ gives system integrators unique design flexibility to enable improved performance and cost differentiation in handheld thermal cameras

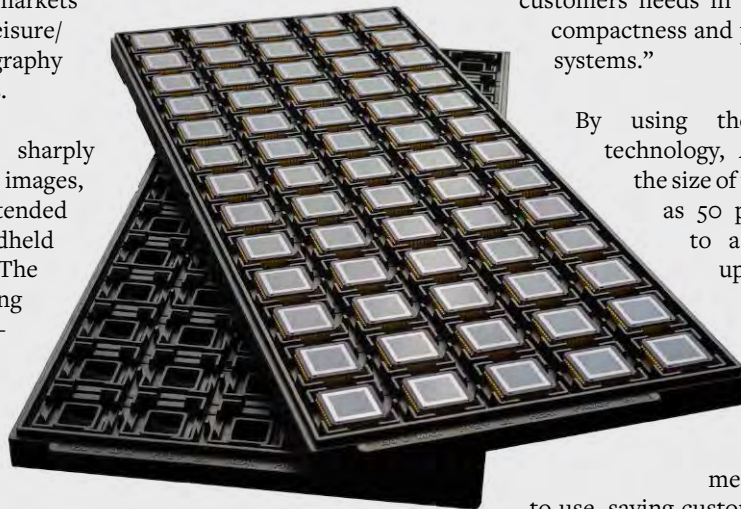
Veuvey-Voroize, France - ULIS, a manufacturer of innovative thermal sensors, today announces the launch of Atto320™, the first in a family of 12-micron, stand-alone, image sensors. The 12-micron pixel pitch is the new industry standard in thermal image sensors for market applications where reducing the overall size and cost of the camera are important. Key markets include the outdoor leisure/observation, thermography and surveillance sectors.

Atto320 brings sharply focused and accurate images, compactness and extended battery-life to handheld camera makers. The advantage of offering Atto320 as a stand-alone component is that system integrators have ultimate flexibility in configuring designs that meet their specific performance needs, enabling them to offer true product differentiation to end-users. Other 12-micron products are sold either as modules or thermal camera cores, where access to the thermal image sensor's performance parameters is restricted.

The new fully digital Atto320, a 320x240 thermal image sensor (microbolometer), is designed with ULIS' unique 12-micron technology for sensor miniaturization. It generates high-quality moving images due to the high frame rate (60Hz) and ease-of-use handling with simple calibration. These features allow users to view fast-moving objects as well as observe scenes at distances of several hundred meters. The new sensor consumes less than 220 mW at 60 Hz, enabling extended autonomy of more than 10 hours for handheld systems.

"ULIS believes in constant innovation and is proud to announce its very first 12-micron product, manufactured using its unique 12-micron pixel pitch manufacturing

technology," said Sebastien Tinnes, marketing manager at ULIS. "Atto320 is the first in our next-generation 12-micron product line. It showcases our expertise in developing innovative products for camera makers seeking more compactness and performance attributes that bring greater competitive advantages. This is a major step forward in our ability to fulfill our customers needs in optimising the cost, compactness and performance of their systems."



By using the new 12-micron technology, Atto320 can reduce the size of the optics by as much as 50 per cent, translating to a cost reduction of up to 20 per cent. It is fully compatible with other ULIS products in its 17-micron GEN2 imaging sensor line. This means Atto320 is easy to use, saving customers time-to-market when switching to 12-micron technology.

Atto320 is ideally suited for traditional market applications, in particular the outdoor leisure market, which is estimated to grow at a CAGR of 21 per cent (Uncooled Infrared Imaging Market August 2016 Report, Yole Développement).

It combines ULIS' product excellence in high uniformity and stability, key parameters for easy implementation and low power consumption, with state of the art performance in temperature difference detection, as low as 0.06°C (60mK thermal sensitivity).

ULIS will show Atto320 by invitation only at SPIE DCS in Anaheim, California. In its 40th year, the event attracts global leading manufacturers, developers and researchers in imaging and sensing for applications in defense, security, healthcare and the environment. North American customers interested in Atto320 can contact ULIS' sister company Sofradir EC directly. **SST**

IACIPP Responds to UN Security Council Call To Protect ‘Critical Infrastructure’ From Terrorist Attacks

London, UK – In February this year UN Security Council urged joint measures to protect ‘critical infrastructure’ from terrorist attacks

Given the importance of critical infrastructure for a country’s prosperity and security and against the backdrop of increasingly diverse physical and cyber threats from terrorist groups, the United Nations Security Council underlined the need for international collaboration – both domestically and across borders to ensure their protection.

In a resolution adopted unanimously the 15-member Security Council reiterated “the need to strengthen efforts to improve security and protection of particularly vulnerable targets, such as infrastructure and public places.”

Attacks against objects and sectors such as banking and finance, telecommunications, emergency services, air, maritime and rail transportation, and energy and water supply perceived as ‘attractive targets’ for terrorist groups can result not only in civilian casualties but also damage property on a large scale, disrupt proper functioning of public services, and create chaos in societies.

It called upon UN Member States “to share information in order to prevent, protect, mitigate, investigate, respond to and recover from damage from terrorist attacks on critical infrastructure facilities, including through joint training, and use or establishment of relevant communication or emergency warning networks.”

In response to this call to action the International Association of Critical Infrastructure Protection Professionals (IACIPP) has today announced the launch of the www.IACIPP.net a global extranet designed for critical infrastructure professionals to share information with other members, keep up-to-date with the latest threats, best practice, training opportunities and much more.

Chairman of the IACIPP John Donlon QPM, FSI said “We fully endorse the UN resolution and we have already been working hard to do our part to make that aspiration a reality. The extranet is now live and operational for members. The association is open to all CIP professionals including operator site managers, security officers as well as first responders, government agency officials, officers and policy makers. Membership of the association is still free and we encourage colleagues around the world to join us.”

He went on to say: “We look forward to welcoming new members and will be demonstrating the www.IACIPP.net platform for the first time at the Critical Infrastructure Protection and Resilience, Europe conference and expo in The Hague where CIP professionals from across Europe and beyond will gather once again to discuss the burning issues.” *SST*

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Ulmart to Explore Blockchain Technology to Help Fight Counterfeiting

Saint Petersburg, Russia - The #Blockshow2017 conference ended in Munich on April 7 and the presence of Russia's leading e-commerce player, Ulmart, came as a surprise to many of the participants.

"It's all about blockchain. We keep talking about the 4th Industrial Revolution as if just by saying it things will change and we will become more tech savvy. However, the heart and soul of this revolution is the blockchain," said Brian Kean, Ulmart's Chief International Officer.

Over 500 participants from all over the world gathered at the Munich conference. The mood among the participants was as if they had uncovered a secret and were setting sail onto an uncharted path to the future.

Many participants represented fintech but discussions about the legal aspects of the Internet of Things (IoT) and using blockchain to protect the virtual identities created some heated discussions.

When asked by the organisers what Ulmart wanted to get out of the conference, Mr. Kean said the goal was to explore whether the blockchain technology can help fight the flood of counterfeit products.

"Consumers complain to us about this issue and ask us to do something. The blockchain will let us join forces with major manufacturers and anyone can then merely point a bar-code or QR-code and follow the entire history of the product from production line to Ulmart's fulfillment center," explained Mr. Kean.

Can the blockchain technology end counterfeiting by shining a light on illegal manufacturers and retailers selling the goods? Will the blockchain protect consumers from mistakenly buying fake iPhones? Russia's leading e-commerce platform, Ulmart, believes it can and the company will work tirelessly with major manufacturers to end the blight that is the counterfeit market.

"It's a unique idea and speaks to the potential and excitement that blockchain brings to the world. Everything will eventually become linked in through the blockchain," commented Angie Bernstein, local Munich entrepreneur and bitcoin trader. *SST*

UK Ministry of Defence Selects Smiths Detection for Airport Security Contract

London, UK - Smiths Detection has been awarded a new, multi-million pound contract with the UK Ministry of Defence (MOD) to provide a wide range of aviation security solutions across all MOD airports globally.

Delivering a solution, which offers industry-leading speed and security for hand luggage, passengers and freight, the deal includes: ScanTrailer 100100V-2is mobile X-ray inspection systems; HI-SCAN 145180-2is dual view X-ray equipment for inspecting air cargo; IONSCAN 600 trace detectors; CEIA PMD2PLUS walk through metal detectors; and the innovative millimeter-wave eqo scanners for screening people; all backed by a ten year support programme.

Richard Thompson, Market Head UK/Ireland at Smiths Detection said: "We are proud to have been selected for this contract by the UK Ministry of Defence. Enhancing aviation security with cutting-edge technology is our top priority. The contract was awarded after a rigorous procurement process and we are delighted to have been able to demonstrate our technical capabilities and understanding of the need for performance and efficiency. The screening systems included in this contract will provide world-class detection capabilities to protect against evolving threats."

The Smiths Detection security detection equipment will add further capabilities for the MOD at its wide range of airports internationally.

Ministry of Defence spokesman Mr Iain Mcleod said: "This key contract will deliver checkpoint and hold baggage security for all UK Ministry of Defence airports over the next decade. Installation is currently underway, maintaining and enabling class-leading aviation security to support our operations around the globe."

Minister for Defence Procurement Harriett Baldwin said: "The signature of this contract helps to ensure that the hundreds of thousands of passengers who pass through Ministry of Defence airports every year have safe journeys." *SST*



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Event Projections*



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gross exhibition area



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from 20 countries



9,000 trade professionals
from 50 countries

*Combined statistics from Architecture & Building Services 2017

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Host



Security Systems Association of Singapore

Supporting Organisations



ASIS International Singapore Chapter



Singapore Green Building Council

SIC 2017 Organiser



Security Industry Institute

Event Highlight



Merlion Awards 2017

Concurrent Events



ArchXpo 2017
The 4th International Exhibition of Architecture & The Built Environment



iFAME
INTERNATIONAL FACILITY MANAGEMENT EXPO 2017
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East Timor Government Goes Live with Gemalto's Electronic Passport Solution

Singapore - Gemalto, the world leader in digital security, partners with the East Timor government to start issuing state-of-the-art electronic passports (ePassports) to its citizens. The complete solution comprises the ICAO-compliant ePassports and a suite of capabilities such as easy enrollment, biometric data capture, de-duplication of redundant biometric information, disaster and data recovery, as well as a full turnkey public key infrastructure and secure issuance of the document. All these features work together to ensure increased security and protection of personal data. Gemalto and its local partner, Visi Mitra Unipessoal Lda, provide support and maintenance services. KOMSCO has been subcontracted to manufacture the passport booklet.

East Timor, also known as The Democratic Republic of Timor-Leste, is a country in Southeast Asia and an independent nation since 2002. The local government is investing in modernisation to enhance services to its citizens. With Gemalto's end-to-end solution, authorities can register ePassport applicants, capture their fingerprints at selected offices and embassies, and issue travel documents using the latest digital security technologies. The ePassports are made of polycarbonate datapages that are embedded with a secure contactless microprocessor and eTravel software for high-end security and durability. Citizens can enjoy a speedy application process and issuance as well as seamless border crossing.



“We now have the capability to issue a more secure ICAO-compliant ePassport so that our citizens can avoid any inconvenience at the borders,” said Ivo Valente, the Minister of Justice of the Democratic Republic of Timor-Leste. “Gemalto’s one-stop solution allows us to migrate to the latest electronic travel documents with ease and confidence. It works with all major printers, and for both centralised and decentralised issuance. East Timor citizens can now travel anywhere around the world, with unprecedented levels of security and privacy. “

“Gemalto strongly supports the ICAO’s Traveler Identification Program (TRIP). Our solution is designed with multiple layers of security, from data collection and booklet production to ePassport issuance and use at the borders,” said Ng Fook-Seng, Senior Vice President Government Programs, Asia, Gemalto. “As a leading supplier of over 30 national ePassport solutions worldwide, and experts of both documents and related solutions, Gemalto is please to support East Timor to jump on to the next-generation electronic passports and secure the entire chain of trust for a safer travel experience.” *SST*



ComNet Enhances Cybersecurity at the Edge by Introducing Port Guardian Physical Port Lockout

Leeds, UK - ComNet Europe Ltd of Leeds in the United Kingdom, part of ComNet Communication Networks, a USA-based manufacturer of transmission and communication networking equipment, has introduced a new Cybersecurity feature in its latest generation of self-managed switches. The ComNet Port Guardian feature has the capability to physically disconnect a port if unauthorized access is detected.

The value in Port Guardian comes in situations where network access is attempted by disconnecting an IP addressable device on the edge to connect to the network. When Port Guardian senses the disconnect, an SNMP notification is sent to the head end and the effected port is physically locked out, preventing access. The network administrator can reopen the port when the threat is eliminated. This feature also thwarts access through "Spoofing" by disconnecting the port as soon as an interruption is sensed. This new feature is being added to the newest generation of ComNet SMS products including the CNGE2+2SMS and CNGE4+2SMS. The feature will also be available on the new ComNet USA-made Managed Switch line.

According to Steve Clarke, ComNet Europe Managing Director, "Unauthorised access issues or Cybersecurity is a critical challenge facing every network manager

today. Your security network with its accessible outside connection, is an easy way to bring down your network. Cybersecurity is not something confined to just a security IP network. Any network can be infiltrated. By introducing this valuable feature on these cutting-edge products, we can provide another unmatched advantage to our partners."



"ComNet's goal from day one has been to be a smart and secure choice for transmission products. Our position is that if you are concerned about the long-term success of your application, choosing ComNet ensures it will be," said Skip Haight, ComNet VP of Marketing. "Port Guardian is another reason

ComNet continues to move ahead of our competitors," Haight continued.

ComNet offers an extensive line of fiber optic, copper and wireless video and data transmission equipment that is uniquely designed to meet the needs of the Security, Intelligent Transportation System, Utility and Industrial markets. *SST*

ComNet will be exhibiting at IFSEC SE Asia 2017 from 6 - 8 September 2017 at the Kuala Lumpur Convention Centre in KL, Malaysia. (Stand P121)

Do you have news for us?
Good! Email us at sst@tradelinkmedia.com.sg





A10 Networks Partners with Cloud Consulting Provider, Blazeclan, and introduces A10 Harmony Controller for Management of Secure Application Services Across Multiple Clouds and Data Centers

A10 Harmony™ Controller powers industry's only multi-cloud, multi-service solution that centrally coordinates secure application services and open-source solutions across hybrid environments

Singapore – A10 Networks, a Secure Application Services company, today announced its partnership with Blazeclan, a premier cloud consulting firm. At the same time, it also introduced a new strategic solution that offers multi-cloud, multi-service management that brings to life its ongoing vision of harmonizing application delivery and security.

Blazeclan Partnership

The Blazeclan partnership completes A10's go-to-market strategy to bring the new controller-based A10 Harmony platform and A10 Lightning – a cloud-native software-as-a-service (SaaS) platform for secure application delivery – to organizations in the region who are looking to take advantage of the inherent agility and scalability of the cloud. As A10 Technology Integration Partner, Blazeclan can now offer A10 Networks Application Delivery Services to customers cross the ASEAN region.

“With A10's Cloud-native solution, customers are now able move their applications to the cloud easily and securely. A10 is fundamentally changing the way secure application services are delivered, protected, and managed by offering a unique solution that bridges the traditional challenges customers have of managing multiple applications across multiple data center and cloud environments.” said Jonathan Tan, Regional Vice President for ASEAN and Pakistan, A10 Networks. “We are giving customers the visibility, performance, and security across this on-premise and cloud spectrum that they demand.”

According to Varoon Rajani, Blazeclan CEO, “Partnering with A10 Networks benefits our customers by including secure application services that ensures our customer's business is more agile than ever. The partnership will broaden the scope of our services significantly. Being first to market with A10 gives us the ability to offer differentiated cloud-native application delivery services to our customers who are embracing cloud and looking for the same level of security currently available in their data centers.”

A10 Harmony Controller Announced

The new developments center on the A10 Harmony Controller, built on microservices and container technologies, offering a multi-tenant, highly scalable controller architecture that incorporates real-time analytics at a per-app level and central management and orchestration of secure application services across hybrid environments – from physical data centers to public, private and hybrid clouds.

The new A10 Harmony Controller and analytics capabilities fundamentally change the way secure application services are delivered, protected, and managed. Because the A10 Harmony application delivery and security controller uniquely spans traditional data centers and clouds, it is now the industry's only controller-based platform that can deliver analytics, configuration and orchestration across such hybrid application environments.

At the heart of this solution are advanced, per-application analytics. The controller now collectively integrates analytics for A10's software and hardware Thunder portfolio and cloud-native A10 Lightning offerings. The centralized visibility and intelligence derived from per-app analytics across this portfolio greatly increase the efficiency of A10 customers' operations teams in enhancing end-user experience. A10's per-app analytics help improve capacity planning and optimise IT infrastructure for customers with elastic cloud environments, and among other capabilities, help dramatically shorten troubleshooting times and proactively provide alerts on performance or security anomalies.

A10's analytics capabilities allow customers to effectively manage app workloads across the entire spectrum of modern hybrid deployments and legacy data centers – unlike other vendors, whose answer to the cloud is to one-dimensionally require specific “cloud appliance” products that have been retrofitted to accept a subset of cloud workloads.

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The A10 Harmony Controller integration with management and analytics capabilities is available across A10's portfolio of secure application services, including application load balancing and app delivery, a web application firewall and SSL inspection.

The A10 Harmony Controller is available in two deployment models. The first allows organisations to use it as a SaaS offering managed by A10, making it very simple, quick and cost-effective to consume. The controller is also available as a customer-managed, scalable software solution within a customer's environment in data centers or clouds, including VMware powered clouds, Amazon Web Services, Google Cloud Platform, and Microsoft Azure.

Azure

"A10 now offers a unique solution that bridges the traditional challenges customers have of managing multiple applications across multiple data center and cloud environments," said A10 Networks CTO Raj Jalan. "We are giving customers the visibility, performance, and security across this on-premise and cloud spectrum that they demand. As a result, our customers have agility and flexibility as their app and business needs evolve. Our expanded A10 portfolio delivers the level of agility customers need to efficiently and effectively manage secure application services, the flexibility they need to continuously meet emerging needs, and the scalability to satisfy their performance requirements."

The A10 Harmony Controller with Thunder ADC integration, HAProxy load balancer analytics, and native Google Cloud load balancing and Web Application Firewall (WAF) offerings will be available in Q2 2017. Integration with other A10 services such as SSL inspection, Carrier Grade NAT and Converged Firewall will be available starting in 2H 2017. **SST**

Dahua Cooperates with BUPT on New "Intelligent Video Joint Laboratory"

Hangzhou, China - Dahua announced the cooperation with Beijing University of Posts and Telecommunications (BUPT) in building a "Joint Laboratory of Intelligent Video Systems Engineering". Both parties will contribute their technological and business resources respectively, to drive technological innovation of intelligent video content in the civilian security field. The Executive Dean of the School of Computer Science at BUPT, Mr. Ma Huadong, and Mr. Yang Yinchang, General Manager of the Dahua R&D Center, attended the ceremony and signed the agreement.

BUPT is one of China's foremost universities, and is well-regarded in scientific research and technology development. Key research areas include communication software, multimedia technology, Internet of Things, information security, artificial intelligence, and data mining. Being a leading provider of advanced video surveillance solutions, Dahua has made significant contributions in the advanced video surveillance field. In the last year, Dahua served in the Rio Olympic Games, G20 Summit, as well as other considerable domestic and international security projects. With Dahua and BUPT agreeing to commit to an initial three year term, the joint laboratory will be focusing on talent development, apprenticeship, academic exchange, overcoming key technological barriers, and development of industry standards. Dahua will fund the research activities of the joint laboratory. Research results will be shared by Dahua and BUPT.

In 2017, Dahua is committed to the promotion of scientific competition, scholarships, talent introductions, and other forms of cooperation. Elaborating on the cooperation, Yang Yinchang stated "Dahua is an application-oriented enterprise. The BUPT laboratory is the first joint laboratory Dahua has set up cooperating with other organizations. Our hope is that with the advantages of academic resources and theoretical research in BUPT, we can promote the technical research of the intelligent video joint laboratory by striving to create the autonomously developed intelligent video system technology solutions. We also see training highly-skilled individuals in intelligent video system research and operation to be of great importance as this will make the joint lab a benchmark for school-enterprise cooperation in the future."

The school-enterprise cooperation provides significant benefits to both Dahua and BUPT. It offers a more effective way to promote technological development in the field of intelligent video surveillance. The security industry is upgrading to a new era of video+. Based on video-centric IoT information service, the era of video+ features multi-dimensional senses and applications. Dahua believes that the school-enterprise cooperation with BUPT will enable Dahua to achieve better performance in the video+ era, and so provide its customers with more advanced products, and services of better quality. With ongoing commitment to promoting safety and security, Dahua will continue to invest in innovation, contribute to the development of the security industry, as well as continue to enhance safety for the betterment of society. **SST**



ASEAN Businesses at Risk of Data Breaches As More Than One in Three Use Unapproved Personal Devices for Work: VMware Study

Companies must provide employees with digital workspaces that are consumer simple and enterprise secure, as 81 percent use personal devices at work and more than 1 in 3 do not comply with IT policies

Singapore – VMware Inc., a global leader in cloud infrastructure and business mobility, today announced findings from a new VMware Digital Workspace Study, which highlights that ASEAN businesses may be at risk as more than 1 in 3 (35 percent) are using unapproved personal devices for work. In addition, 38 percent of respondents surveyed do not comply with their company’s IT policies or do not know them at all, increasing companies’ exposure to data breaches and business risks.

Interestingly, Singapore topped the list, with 1 in 2 respondents (50 percent) who indicated that they do not always comply with IT policies or do not know them at all.

The VMware Digital Workspace Study highlights:

Organisations in ASEAN prone to data breaches as 81 percent users in the region use their personal devices for work.

- Thailand (88 percent) followed by Indonesia (86 percent) were the highest users of personal devices for work followed by Malaysia (79 percent) and Singapore (71 percent).
- 65 percent of users across the region use mobile devices to check work emails and 41 percent to access work files.
- 38 percent of users make use of mobile devices to conduct financial transactions. This

functionality was the most popular in Thailand (52 percent) followed by Malaysia (37 percent). At 28 percent, respondents in Singapore were least keen on making financial transactions via a mobile device.

Business vulnerability to hacks and cyber-attacks could leapfrog as more than one in three (35 percent) of users who use personal devices for work, do not have them approved by IT and at least 38 percent do not comply with IT policies.

- Singapore and Malaysia (both at 38 percent) had the highest proportion of all users who use unapproved personal devices at work closely followed by Indonesia (34 percent) and Thailand (30 percent).
- At 50 percent, Singapore had the most number of people who did not always comply with IT policies or did not know them at all. This is followed by Malaysia at 42 percent, Indonesia (38 percent) and Thailand (24 percent).

Struggles with end-user and interface experience could adversely impact productivity as at least 79 percent of all respondents had difficulties when using work apps.

- Having too many passwords to remember (38 percent) was the top challenge with devices. At 45 percent, Singaporeans

felt this challenge the most followed by 42 percent of Malaysians.

- Issues with different interface experiences across devices (34 percent) and apps not syncing up perfectly across devices (32 percent) were the other two issues causing difficulties for the region.

Unsafe password practices could make businesses a haven for attacks as 33 percent use the same password across multiple devices and 29 percent save passwords as notes on their mobile device.

- At least 37 percent of Thais and 31 percent of Singaporeans prefer to use the same password across devices. The trend is mirrored in Malaysia (29 percent) and Indonesia (25 percent).
- Indonesians (32 percent) topped the list of respondents who use mobile devices to store passwords. This was followed by Malaysians (29 percent).
- “In the digital era, employees, devices, applications and data increasingly live beyond the physical walls of the workplace. As the benefits of digitization extend across the organization to include a broader set of employees and endpoints, there is an urgent need to balance consumer preferences with enterprise security. The gaps, vulnerabilities and

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inefficiencies unveiled by the VMware Digital Workspace Survey findings establish the need to plug the gaps that could significantly hinder ASEAN's competitiveness and growth," said Ron Goh, President, Southeast Asia & Korea, VMware.

- To address IT departments' cyber security concerns and

users' difficulties accessing critical business information and processes on work applications, VMware has introduced access management and security capabilities for its VMware Workspace ONE™ solution. Building on previous Workspace ONE innovations, VMware will make it easy for IT to deliver unified access and a single sign-on experience to

intranet applications and offer richer access capabilities that combine real-time security hygiene with compliance automation. Workspace ONE combines identity and enterprise mobility management (EMM) to help organisations securely deploy all business applications and services with an improved end-user experience. **SST**

Surveon Maintains a Safer Environment for Passengers with Reliable Transportation Solutions

New Taipei City, Taiwan - Being in the generation of global village, people usually travel between cities and countries, and the security of transportation has become one of the main issues to deal with under certain circumstances. Transportation needs to provide a safe and secure environment and stay one step ahead of vandalism to protect passengers from potential threats. The challenges of transferring and managing mass amounts of information from vehicles or stations to the operations control center often entail strenuous effort for system integrators. To help integrators work on the system, Surveon offers reliable transportation solutions, including compact cameras and enterprise VMS with video analytics, ensuring proper actions can be taken in time to secure the safety of passengers.

Transportation projects require the solutions to provide sufficient reliability for long-term operations. Besides, the cameras have to support shock proof and provide clear images, regardless of different kinds of lighting environments for applications. Surveon compact series camera provides excellent megapixel image quality with low light performance and WDR, and allows users to adjust the shooting angle with equipped 2-axis, protecting passengers and vehicles from any threats. Among Surveon camera selection, 2MP compact dome CAM1320S2 with built-in MIC and 2-axis support, 2MP compact bullet camera CAM3361LV with SONY Exmor sensor and vari-focal lens could be the options in such applications.

As the operation control center needs to access information from different vehicles such as bus and



train, the solutions of transportation require advanced centralised management to ensure smooth operation. Surveon enterprise VMS with smart search and playback enables the operation control center to search and export large quantities of recorded video to deal with critical situations in a very short time. Besides, the real-time video analytics like Virtual Fence can be used as an active alarm, ensuring rapid action can be taken to protect passengers from potential accidents, such as crossing over the waiting line. In addition, Surveon Control Center (SCC) supports hundreds of channels in an hierarchical system architecture, offering rich services including camera control, live monitoring, recording, and alarm handling to keep every detail under control. Its remote viewing allows security guards to manage surveillance anywhere, preventing suspicious person or potential threats to safeguard the passengers on public transportation.

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. **SST**



Huawei to Host Global Safe City Summit in Dubai

Company launches the world's first collaborative public safety solution

Shenzhen, China - Under the theme "Leading New ICT, The Road to Collaborative Public Safety", Huawei Global Safe City Summit 2017 will be held in Dubai, UAE from April 26-27. The event will bring together leading enterprises, industry experts, and partners from across the world to explore the trends and challenges of digital transformation within the public safety industry, as well as share innovative technology application practices.

At the summit, Huawei will also launch the world's first collaborative public safety solution. By leveraging new ICT technologies, such as cloud computing, Internet of Things (IoT), Big Data, mobile broadband, and Software-Defined Networking (SDN), the new solution will enable efficient collaboration between government agencies and between the police and the public to transform public safety and strengthen communities.

In the digital era, new security threats are emerging that affect the public safety industry. To address these new threats Huawei believes the industry needs to shift from constructing traditional public safety models to building collaborative public safety models. These models are designed to keep pace with social and technological

developments and establish a collaborative public safety system that protects the public through seamless interaction between authorities and citizens.

In addition, Huawei will release the first video cloud solution featuring an all-cloud architecture and matrix intelligence, as well as a crisis and disaster management solution.

During the summit Huawei, together with partners, will demonstrate its latest Safe City solutions and practices, such as video cloud, convergent eLTE broadband trunking, deep-learning smart video analysis, law enforcement Big Data, and next-generation converged command system.

Huawei Safe City solutions adhere to the principles of openness, collaboration, and mutual benefit. Huawei is committed to working closely with global leading partners in consulting and planning, system integration, and software application to build a mature Safe City ecosystem and provide one-stop Safe City solutions for customers. Currently, Huawei Safe City solutions are now serving more than 800 million people in more than 200 cities in over 80 countries in Europe, Africa, and the Asia Pacific region. **SST**

Hikvision's Deep Learning-Based Word Recognition Technology Wins 1st Prize in ICDAR 2016 Robust Reading Competition

Hangzhou, China - Hikvision, the world's leading supplier of innovative video surveillance products and solutions, is proud to announce that its Optical Character Recognition (OCR) Technology based on Deep Learning and led by the company's Research Institute has won the first prize in the ICDAR 2016 Robust Reading Competition. The Hikvision team substantially surpassed both strong

domestic and foreign competitors in three Word Recognition challenges, including Born-Digital Images, Focused Scene Text, and Incidental Scene Text, demonstrating that the Word Recognition Technology by Hikvision reached the world's top level.

The International Conference on Document Analysis and Recognition (ICDAR) is held by the International

Association for Pattern Recognition (IAPR). This competition is the most influential for OCR technology worldwide. The competition has been held five times since 2003. Since the latest competition in 2015, 2,367 teams from 82 countries have been involved in the competition, including Google, Microsoft, Baidu, Samsung, and Megvii. These competitions have greatly spurred the development of Word

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Recognition Technology.

The words to be recognised in these challenges are located in complicated image backgrounds. There are multiple adverse factors for imaging, such as noise, blur, transparency, image tilt, and much more. Moreover, different fonts need to be dealt with as well. Hikvision OCR technology has overcome many challenges and won the worldwide first prize in the three Word Recognition competitions. Specifically, it surpassed the second place finisher by 5.6% in the Web and Email Born-Digital Images challenge, and by 3.4% and 3.1% respectively in the Focused Scene Text challenge and the Incidental Scene Text challenge.

With the assistance of advanced OCR technology, the Hikvision Word Recognition system is capable of dealing with more complicated Word Recognition scenarios, such as those with stains and blurs, background noise and deformation, extreme weather impact, etc. As of now, Hikvision's vehicle plate recognition system - based on this new OCR technology - has been applied in over 60 locations around the world. Electronic police, entrance/exit control and parking systems are of note.

In addition, the results of this competition can also be applied in multiple other sectors to greatly improve product performance and application effectiveness. These

applications include tag recognition in the machine vision sector, ID and license recognition in traffic and commercial sectors, malicious image recognition over the Internet, and banner and street view recognition in the urban management sector.

Hikvision has seized opportunities to develop Artificial Intelligence (AI), and the company is leveraging its Big Data and superior AI technology to improve its OCR technology performance. Hikvision continually strives to advance machine intelligence and automation, continuously creating value for its customers in areas of video surveillance, intelligent perception, scenario understanding and much more. **SST**

Together with NVIDIA, Dahua Promotes Video+ with “Deep Sense” Smart Video Structure Server

Hangzhou, China - The “Deep Insight· Deep Cooperation” Dahua Smart GPU Product Release Conference was held in Hangzhou. Together with NVIDIA, a world-leading Artificial Intelligence (AI) computing company, Dahua released “Deep Sense” server for smart video structure analysis with extremely high computing capability. Mr. Yang Yinchang, General Manager of Dahua R&D Center, Dr. Pan Shizhu, President of Dahua Institute of Advanced Technology, as well as Mr. Shen Wei, VP of NVIDIA participated in the new product release conference.

With the improving performance of Big Data, Deep Learning, GPU chipset and server, AI is gaining momentum in global security industry. Based upon our insight on the market trend, and in response to customer demand, Dahua initiates cooperation with other companies in the industrial value chain to focus on enhancing video processing capabilities and creating a new world of AI together.

During the conference, Dr. Pan Shizhu presented the new product, “Deep Sense” series. As a blockbuster from the powerful combination of Dahua and NVIDIA, “Deep Sense” server, equipped with NVIDIA® Tesla®P4 GPUs, supports structure analysis of up to 192channels

of video. It delivers up to 50 times stronger video processing capability comparing with alternations in the market Tesla P4 GPUs, specially developed for deep learning computing, will take the deep-learning-based application in the security industry to a new height. Dr. Pan believes that the release of “Deep Sense” will largely improve the utilisation and application value of security video Big Data.

“Deep Sense”, with extraordinary processing capability, enables further advancement in video structured analysis, resulting in faster speed and better accuracy. In his speech about <Deep Learning Accelerates the Establishment of a Smart City>, Dr. Pan said that, the development of smart city relies largely on new technologies like Big Data, High Performance Computer and AI. Equipped with NVIDIA® Tesla®P4 GPUs, “Deep Sense” is able to perform deduction services for AI applications to support deep learning with more layers and smarter data collision analysis, offering more possibilities to implement new AI application in the global security industry.

Mr. Shen Wei, VP of NVIDIA, said that NVIDIA owns a comprehensive end-to-end leaning platform from training to deduction, offers mighty support of AI

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computing to global security industry. Dahua “Deep Sense” series is the first server product in the global smart video analysis industry to deploy Tesla P4 GPU. With Dahua’s expertise in fields like smart city and AI, and the powerful performance of NVIDIA deep learning platform, the mass deployment of Tesla P4 in Dahua products will definitely bring innovative intelligent video services to a broad user base in the global security industry.

Leveraging on its core strength in technical innovation,

Dahua is making rapid progress in the fields of video big data and cloud computing. Vehicle big data, face recognition big data and visual extraction deployment have been very mature and reliable. The release of “Deep Sense” showcased further improvement of Dahua Smart Family Portfolio. Classification of video objects into human, vehicle and things, as well as the extraction of details and features will be more systematic, allowing video application to better met business needs and the demanding requirement of real life use in the global security industry. *SST*

Region’s First-ever: Rotorcraft Asia and Unmanned Systems Asia, the Inaugural Platforms to Drive End-to-End Innovative Solutions

Inaugural events offer effective strategic platform for industry leaders, experts and next generation of talent to advance regional growth potential

Singapore – The inaugural Rotorcraft Asia, the region’s first-ever dedicated event for civil helicopter industry is focused on offering an effective strategic platform for industry leaders, potential partners and experts to forge partnerships, engage in dialogues and showcase new innovative technologies, to unlock the region’s growing industry.

Top executives, regulators, industry experts, academics and leading industry players from more than 45 countries across 4 continents will converge at Rotorcraft Asia 2017 to drive discussions on industry challenges, emerging needs and new innovative solutions. Adding dimensions to the discourse, the co-located Unmanned Systems Asia 2017 will explore the “Future of Drones” that will feature diverse insights into unmanned systems and showcase the advances of the 21st century.

Held from 18 to 20 April 2017 at

the Changi Exhibition Centre in Singapore, over 80 companies from close to 20 countries gathered to showcase a vast spectrum of cutting edge and innovative solutions in rotorcraft and unmanned systems. In addition to featuring new technologies and innovations, the events also engaged young talent with the focus on cultivating and grooming the next generation of industry leaders.

“The growing necessity to integrate smart technologies to drive efficiency and competitiveness has increased the need for the rotorcraft industry to continuously evolve and invest in new innovative technologies,” said Mr Leck Chet Lam, Managing Director, Experia Events. “The events are co-located to ensure industry players have one single effective platform to advance regional growth potential.”

“The inaugural events not only provide a networking platform and access to a wide spectrum

of growth opportunities in Asia-Pacific’s thriving civil helicopter and unmanned systems markets, they also enhance Singapore’s position as the leading aerospace hub in the region,” said Mr Tan Kong Hwee, Director, Transport Engineering, Singapore Economic Development Board.

Shaping the Innovation Agenda Through Insightful Dialogues

Rotorcraft Asia and Unmanned Systems Asia will feature a series of strategic conferences and forums over the three days. The Unmanned Systems Asia 2017 Forum, held on 18 April, will explore the theme of “Future of Drones” to present varied views from commercial users of aerial drones in different industries, with the aim of providing thought provoking discussions on the future potential of having aerial drones performing more varied tasks.

The Rotorcraft Asia Conference,

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themed “Innovation in Rotorcraft”, will be held on 19 and 20 April, with the focus on new technologies and solutions for rotary wing aircraft. The two-day conference featured keynote and panel speakers who will seek to explore the future landscape of how rotorcraft will fly and operate, through the application of next generation innovative technologies, mindset and engineering processes.

Strategic Springboard to Enable Collaboration Across Markets

The VIP Buyers Programme demonstrates the role of Rotorcraft Asia and Unmanned Systems Asia as a strategic springboard to enable exhibitors and potential buyers to network and collaborate on business opportunities in this region. Through pre-arranged meetings, exhibitors can use this dedicated

face time to forge strategic new partnerships.

The VIP Buyers attending included senior public sector representatives from the Ministry of Public Security of the Socialist Republic of Vietnam, Philippine National Police, Royal Malaysia Police, Ministry of Natural Resources and Environmental Conservation, Myanmar, and Royal Brunei Technical Services; as well as commercial buyers including BP, Shell Aviation, PT Derazona Air Service, Macquarie Rotorcraft Leasing, PhilJets, Thai Helicopter Services, Waypoint Leasing among others.

Next-Generation Industry Talents at the Forefront with Drone Innovations

The University R&D Showcase displayed innovative unmanned systems solutions of tomorrow

that have been developed by Singapore’s top universities and tertiary institutions, contributing to Singapore’s vision to be a Smart Nation. Participating IHLs include Singapore Polytechnic, National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore University of Technology and Design (SUTD), and University of Glasgow Singapore in partnership with Singapore Institute of Technology.

Rotorcraft Asia 2017 and Unmanned Systems Asia 2017 are organised by Experia Events with the support of the Civil Aviation Authority of Singapore, the Defence Science and Technology Agency, International Enterprise Singapore, the Ministry of Transport, Singapore, the Singapore Economic Development Board and the Singapore Exhibition and Convention Bureau. **ESST**

Starcor Launches HVS 2.0 (Hybrid Video Solution) at CCBN2017 in Beijing

Beijing, China - Starcor, a major international supplier of video solution and video big data service for global operators, launched its HVS 2.0 (Hybrid Video Solution) at CCBN2017 (China Content Broadcasting Network) held in Beijing, China. As the largest event for broadcasting and networking in Asia, CCBN attracted more than 1,000 companies from 30 countries. Starcor has aroused great interest to its flexible and customizable solution based on its rich industry experience. This has laid a good foundation for the upcoming BroadcastAsia2017 happening in Singapore this May.

Starcor’s HVS 2.0 provides a convergent solution of DVB, IPTV and OTT services on unified platform which offers consumers a consistent user experience across multiple content sources, networks, applications and devices. It can also help operators increase market penetration, grow revenues and build customer loyalty. Based on Apache Hadoop architecture, HVS 2.0 offers an innovation solution of video big data analysis for operators, propels transformation from traditional operation to intelligent operation with data-driven decision.

Up to now, Starcor’s HVS 2.0 has been successfully deployed in CNTV, MANGO TV, TOPWAY TV and more, which are highly regarded by operators in China. With Starcor’s HVS 2.0, endeavoring to promote development and evolution of media convergence technology, operators have eliminated technical barrier of convergent service expansion.

For more information, please visit: www.starcor.com **ESST**





Goyang, South Korea's Smart City, Enhances Safety with a World Class Safety Surveillance Implementation

More than 2,500 video cameras replaced and managed with Milestone's software solutions to boost tourism and fight crime



Vice President, APAC

Benjamin Low has more than 20 years of experience in cyber security, IT networking and software. Prior to joining Milestone in 2015, Benjamin was Managing Director for Asia Pacific for Guidance Software, a world leading company in digital investigative solutions. In this role, he scaled up the organization by driving their business through a combination of channel partners and security vendors resulting in record sales. Benjamin has also worked with Computer Associates, Entrust, Cisco and McAfee, running their operations in Asia Pacific. He holds a Master of Science in Business Administration from the University of Adelaide in Australia, and has attended the Graduate Program in International Management from Stanford University Graduate School of Business in the US.

Singapore – Milestone Systems, the leading provider for open platform IP video management software (VMS), has successfully completed a seamless 24/7 security surveillance solution for Goyang City in South Korea. One of the 10 most dynamically developing cities in the world, Goyang is now safer than ever, as civil safety staff are equipped with Milestone's integrated IP video solution to crack down on crime-prone districts and blind spots in the city.

Goyang City, a top tourist destination with a rich 600-year history, attracts thousands of tourist arrivals throughout the year. To ensure a safe and pleasant experience for both citizens and tourists, the city implemented a comprehensive, integrated overhaul of its security solutions.

Under the previous video surveillance system, many incidents of downtime occurred, requiring a manual reboot each time its function failed. Staff resources were heavily overutilised, as several members had to be placed on duty around the clock for constant monitoring, which added on to already high maintenance costs. In order to maintain security and to more effectively conduct 360-surveillance checks, Goyang City opted for Milestone XProtect software to replace its old video surveillance system.

Working in partnership with Omecca, a Milestone Platinum

Partner, Goyang City implemented an integrated surveillance solution that offers scalability, flexibility, reliability and cost-effectiveness. With over 2,500 video cameras to implement, a seamless transition without causing disruption to daily operations was crucial. Omecca worked with Goyang to replace the old video management software with Milestone's enhanced XProtect solution. Within two weeks, all video cameras were replaced with the new system, allowing each staff member to monitor approximately 100 cameras simultaneously using the carousel feature and comprehensive XProtect Smart Wall overview.

“As the city continues to grow, we remain confident that the Milestone security surveillance system can be easily expanded to accommodate additional security demands,” commented An Dong Soo, head of civil safety center, Goyang City. “Public safety is of paramount importance, and we are committed to investing in the latest technologies to help us reduce administrative time and improve the efficiency of our resources.”

Benjamin Low, Vice President for APAC at Milestone Systems, said, “We understand the importance of public safety in Goyang, the smart city of Korea. The upgrading of Goyang's video management software to a flexible and future proof one is a huge step to that, and we're delighted to have worked with one of our Platinum partners, Omecca, to help Goyang achieve their safe city vision.”

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Milestone provides Goyang with the scalability and flexibility to expand on the security with more innovations at any time. Since the initial installation of 2,500 video cameras, an additional 2,200 cameras have been added – bringing the total number of cameras to 4,700 at present.

Milestone XProtect also helps operators to respond rapidly to unfolding events by integrating two new pieces of software – a facility management system to manage IP camera devices on site and a video export software application for

remote searching/playback/export of video data from other locations. This open interoperability designed by Milestone Systems enables installing partners to implement best-in-class solutions for customised, enhanced security, providing a future-proof, scalable platform.

“The ability to install flexible, scalable Milestone software on our existing hardware infrastructure, and subsequently to add new features from interoperability with facility management software and remote video exporting, has helped

us make continual improvements in the quality of our video surveillance technology,” said An.

“Milestone Systems is committed to working with Goyang City Hall, to provide industry leading video surveillance software for public safety. As the smart city of South Korea, Goyang will continue to grow, and we are confident that our open platform integrated surveillance system will be able to meet its security needs,” Benjamin Low, Vice President for APAC at Milestone Systems, comments. **SST**

Safran Identity and Security Showcases Breakthrough Solutions for Public Security at Milipol Asia-Pacific in Singapore

Singapore - Safran Identity and Security, a global leader in identity and security solutions, invites visitors of Milipol Asia-Pacific to discover its latest biometric innovations to meet a broad range of public security, access control and border control challenges.

Today, dramatic advances in both IT and biometric technologies open the way to unprecedented opportunities to help authorities enhance global security while improving citizen experience. Safran Identity & Security has developed state-of-the art and customised solutions for airport authorities, forensic police investigators and private organisations.

In the area of public security, the company is showcasing its latest innovation in video analysis, Morpho Video Investigator (MVI), a solution that enables authorities to save precious time in post-event treatment of video footage. Already deployed by the French National Police for counter-terrorism investigations, MVI analyses volumes of raw data, detects important details and flags up most relevant data for the analyst, thus avoiding the need to screen all video footage. MVI's advanced processing capacity enables investigators to divide their investigation time by 10.

In the area of airport security, Safran Identity and

Security provides solutions to increase border security while facilitating passenger experience. Through biometric identification, MorphoPass solution expedites passenger checkpoints while offering a more seamless experience at the different stages of the pre-flight airport journey: automated bag drop, passport control and boarding. A world first, MorphoPass has been selected by Changi Airport for deployment in its new Terminal 4, scheduled to open this year.

In addition, the company is exhibiting breakthrough technologies for contactless identity verification to meet the growing demand for frictionless access control at high-traffic and sensitive locations. The MorphoWave(TM) biometric solution, another industry first, captures and matches in less than 1 second four fingerprints simultaneously, as the user simply waves a hand over the sensor to be identified.

“Biometrics is a key contributor to resolving today's security challenges because it provides the ideal match between the high accuracy needed by public authorities and the level of convenience required by citizens living in a digital world. Through highly secure, non-intrusive solutions, we are helping authorities around the world create safer places to live in,” declared Samuel Fringant, Executive Vice President of the Security Division at Safran Identity and Security. **SST**



INTERPOL World 2017 to Showcase the Latest Innovations for Future Security Challenges

Singapore – The stage is set for INTERPOL World 2017 as it readies to welcome over 10,000 law enforcement agencies, government bodies, academia, solution providers, security professionals, and buyers from around the globe.

In its second edition this year, INTERPOL World, comprising the INTERPOL World Congress and Exhibition, promises an immersive experience covering the latest innovations, best practices, and thought leadership aimed at accelerating timely and accurate responses to future global security challenges.

Experiencing the Technology – Facial Recognition at INTERPOL World 2017 Congress

Delegates will get to experience the latest access control and identity management technologies. NEC Corporation’s facial recognition technology, NeoFace®, together with Zoom Tech’s ZOOMGATE, will be deployed at the entrance to the INTERPOL World Congress.

When integrated, the technologies allow for swift and accurate authentication for a seamless and secure entry into the Congress. Delegates’ facial images will be captured and matched against the pre-enrolled face images in the database right at the entrance gate, as part of NEC Corporation’s Two-Factor Authentication (2FA).

An Amalgamation of Innovations from Around the World

INTERPOL World 2017 Exhibition will feature the latest array of solutions for public safety, identity



management, biometrics, forensics, investigations and cybercrime.

Identity theft incidents are escalating, raising interests in more secure authentication technologies that utilise unique human characteristics for credentials. Sierra Solutions will be showcasing EyeLock Nano NXT, an iris-based biometric technology that authenticates people in-motion and at-a-distance with unparalleled accuracy.

Another constant challenge for law enforcement is in securing and managing borders. SICPA’s EXTENS® SmartStamp is a machine-readable travel stamp that combines material and digital technologies to contain both static and dynamic data about travellers and their trips, thus allowing border control authorities to immediately access previously unattainable data.

The use of robots in law enforcement is also gaining traction and the worldwide market for law enforcement robots is estimated to reach USD 5.7 billion by 2022, an increase from USD 1 billion in 2015. Oneberry’s RoboGuard™ is an innovative security deterrent that combines intelligent surveillance cameras equipped with video analytics and alarm triggers, with robust hardware to support

proactive remote monitoring.

In all, over 200 companies from 30 countries and regions will be showcasing solutions at the Exhibition, underlining INTERPOL World’s position as the platform to foster innovation for future security challenges.


Technology Insights and Know-How at the INTERPOL World Theatres

Two theatres will feature sessions on mobile biometrics, AI, machine learning, IoT botnets, audit CCTV, data centre security, digital forensics and more; led by subject experts such as Arbor Networks, Cellebrite, Cross Border Research Association (CBRA), Data Centre Dynamics, EC-Council Group, Microsoft Corporation, Oracle, SecureAge Technology, Sierra Solutions and TNO, among others.

INTERPOL World – the Global Hub for Collaboration, Exchange and Networking

INTERPOL World 2017 will host eight national groups from France, Israel, Italy, Japan, Korea (Rep. of), Singapore, Switzerland, and the United States as well as delegation groups from Australia, Bhutan, France, India, Indonesia, Malaysia, Nigeria and the Philippines, among others, signifying a strong global interest in the shared conversation to combat future crime.

INTERPOL World 2017 Congress will be held from 4 to 6 July, alongside the INTERPOL World Exhibition, which will take place from 5 to 7 July. For more information, please visit www.interpol-world.com.

For more information, please visit: www.interpol-world.com 



ENTR® Smart Door Lock Wins International Smart Home Award

Taipei, Taiwan - Mul-T-Lock's ENTR® Smart Door Lock has won a premier product innovation award from global connected home publication, SMAhome. The ENTR® lock was selected from among 28 smart home product finalists to receive the overall Popularity Award for 2017.

SMAhome awards are judged anonymously by a jury of industry insiders, including system integrators and service providers with an established track record in this market. ENTR®'s affordability, convenience, sustainability and easy integration with leading smart home ecosystems were cited in the SMAhome award announcement. Award winners were announced in a ceremony at the Taipei Nangang Exhibition Centre in Taiwan.

“SMAhome is one of the world's leading sources of news and knowledge on the fast-evolving smart home



The ENTR® Smart Lock: convenient, secure and easy to install

technology and product market,” says Ehud Dinerman, Managing Director ENTR® at Mul-T-Lock. “We are extremely proud our ENTR® Smart Door Lock was selected from a 28-strong list of finalists, which included some of the global industry's best known manufacturers.”

It takes just one screw to fit an ENTR® lock and transform a front door into a smart front door. With ENTR®, homeowners can open their door via app, PIN code, remote control or fingerprint reader.

ENTR® makes domestic key troubles a thing of the past: there's no longer any need to get a spare set cut for kids, cleaners, carers or temporary workers. A couple of swipes on a smartphone screen is all it takes to share an ENTR® digital key with family or anyone who needs access — and to revoke the key instantly when required. The Mul-T-Lock ENTR® Smart Lock works equally well as a stand-alone solution or connected to a smart home system. **SST**

Albanian Police Officers Visited Dahua Seeking Cooperation

Hangzhou, China - Dahua embraced the visit of a group of Albanian Police Officers from Albanian National Police Headquarters and District Police Station and Republican Guard. Mr. Michael Chen, VP of Dahua, General Manager of Overseas Business, hosted the reception.

After warmly welcoming the Albanian guests, Mr. Michael Chen accompanied them to a tour of Dahua showroom. Albanian guests were deeply impressed by Dahua solutions especially Safe City, which enables police, transportation authority and other departments to deal with safety threats using less police force but delivering faster response. Dahua Safe City Solution achieves reliable detection using face recognition technology, real-time response via integrated platform, effective investigation by powerful video synopsis, and easier system maintenance through automatic maintenance platform. Dahua had been a recommended brand for safe

city projects in China for many years.

After the tour, Mr. Michael Chen presented the brief introduction of Dahua. He said that Dahua had rich experience in video surveillance, and also dug deeply into advanced technologies like machine vision, big data, AI deep-learning and IoT. He also introduced Dahua solutions regarding safe city and transportation, as well as some successful cases Dahua had accomplished in Central Eastern Europe & Nordic, especially in Albania. Albanian police officers expressed interest to cooperate in areas such as safe city management, transportation management and so on.

The visit has, to some extent, promoted mutual Sino-Albanian cooperation. With a mission of “Safer Society, Smarter Living”, Dahua will continue to focus on “Innovation, Quality and Service” to serve partners and customers around the world. **SST**



Smart Homes: Are the Security Risks Worth It?



▶▶ By: Andrew Dean



Consultant, Speaker and Writer Andrew Dean has been a consultant in almost every industry from retail to medical devices and everything in between. He implements lean methodology and is currently writing a book about scaling up businesses.

How cool would it be to click off your lights at home during the day, while you're at work or set your temperature controls to kick on the heat an hour or two before you head home? For smart home owners, these kinds of conveniences are an everyday reality that has lots of perks. However, these early adopters are still working with technology that's in its infancy, which means that manufacturers are still working out a lot of the early kinks that come with the territory. Unfortunately, some of the biggest problems with smart homes so far have been related to security. Potential smart home owners have some legitimate concerns over the cyber vulnerabilities involved with getting in on the smart home trend. Before smart homes can go mainstream, many consumers are going to ask the question: are these homes worth the security risks?

Ever-Evolving Features

On one hand, smart home technology is very appealing and will only become more appealing with time as the technology develops. Current smart home technology mostly supports fairly simple tasks, like controlling the lights or the television, but as technology integrates new artificial intelligence features, smart homes



“Smart security” is the next logical step in making smart homes safer, analysing patterns and alerting the homeowner when anomalies are detected, making it easier to spot illicit activity.



will be able to make our lives easier in myriad ways. Everything will be connected to the Internet, from refrigerators to toilets. Our refrigerators could tell us when certain food items are about to go bad, and our thermostats could learn what temperatures we prefer at different times of day. These features will enhance the appeal and functionality of smart homes. However, with every connected device, the security risks increase.

Early Security Holes

Early smart home systems have some serious security flaws that have come to light within the last few years. Trailblazing smart home manufacturers have been more concerned with innovation and getting their products to market than in keeping up with the latest developments in cyber security. These companies often neglect even the basics of keeping their smart home systems safe, making them ridiculously easy to hack. One Synack security analyst who tested the cyber security of some of these products was able to hack into 15 of 16 smart home devices within 20 minutes. When you consider that those devices could include home security cameras, garage doors, and water pumps, it is easy to see that these vulnerabilities pose a physical threat to the home's inhabitants.

With so many companies putting these devices on the market, customers have to be extremely careful about which products to purchase, in order to minimise risks. At the moment, the biggest comfort to smart home owners is probably that cyber criminals still seem to be more interested in stealing personal data, including payment information, than messing around with smart home systems. That doesn't mean a smart home is safe from attack, however, especially as more devices come online to join the Internet of Things network.

Cyber Security Improvements

Now that the many security experts have exposed the flaws in smart home security, manufacturers may have greater motivation than ever to invest in improved security measures. Smart home buyers should help encourage this trend by purchasing devices from the companies making an effort to protect their systems from attack. Strong encryption, two-factor authentication, and other security protocols will become increasingly important as the industry grows. “Smart security” is the next logical step in making smart homes safer, analysing patterns and alerting the homeowner when anomalies are detected, making it easier to spot illicit activity.

A Growing Market

So, are they worth the risk? Many people think so. There's no doubt that smart homes will become a big business in the next few years. By 2019, the market is estimated to be worth \$115 billion, and many more options will be available to consumers. Though it's less secure, most homeowners will want security to be integrated into a single platform, meaning that with one breach, cyber criminals could access all of the home's devices at once, allowing easy access to data—and even physical access to the home.

With this in mind, consumers will have to make the choice on an individual basis: is the convenience worth the risk? Someday, smart home features might be standard, and integrated into the way we live our lives. Until that time, consumers have a difficult decision to make.

Article was originally published at www.datafloq.com and is used with permission from the writer. SST





The term Internet of Things was coined by Kevin Ashton while working for Procter & Gamble in 1999.

60% of the burglars avoid homes that have a security systems installed. This is why it is a good idea to have signs or warnings placed outside your home notifying outsiders that you have a security system in place. In addition, you should also ensure that your smart home security system is working soundly as some of the rest of the 40% assume the system is not correctly armed.

When World War I ended, an increase in crime followed. During this time, homeowners may have subscribed to a service called door shakers— a group of night watchmen who would shake subscribers' doors each night to ensure they were locked. More advanced users may have installed an alarm system that used electromagnetic contacts fastened to doors and windows, which were connected to a battery and bell. These systems were monitored by a central station that sent a guard to the residence when the alarm was triggered.

Living Smart

According to The Internet of Things Global Standards (IoT-GSI), for a device to be labeled as IoT, it must have seven design features: sensors, internet connectivity, processors, energy efficiency, cost effectiveness, quality and reliability, and security.

An early model of an advanced video home security system included a large motorised camera that moved down a track to view the exterior of the home through four peepholes mounted in the front door. The video camera transmitted grainy images of visitors to a stationary television monitor that also served as the control panel where the homeowner could remotely control the camera's movements. The panel, which was located in a separate room away from the camera, was equipped with security features such as an intercom to communicate with visitors, a door lock switch and an alarm button that could activate the alarm at the central station that monitors the residence.





In 2013, Microsoft launched Lab of Things (playing off the Internet of Things) to encourage researchers to explore various studies of home automation. The Lab provides a virtual dashboard for monitoring and controlling different connected devices and provides standards for building home-related apps. By logging into the Lab, one could view footage from a home security camera or get notified when a door is opened or closed, among many other things.

“Ransomware is more about manipulating vulnerabilities in human psychology than the adversary’s technological sophistication.”

– James Scott, Sr. Fellow, Institute for Critical Infrastructure Technology

According to IoT Analytics, there will be between two and six connected things for every living person on earth by 2020.

The concept of a network of smart devices was discussed as early as 1982 with a modified Coke machine at Carnegie Mellon University becoming the first internet-connected appliance that had the ability to report its inventory and whether newly loaded drinks were cold.

in the IoT Era

“The Internet will disappear. There will be so many IP addresses, so many devices, sensors, things that you are wearing, things that you are interacting with, that you won’t even sense it. It will be part of your presence all the time. Imagine you walk into a room and the room is dynamic. And with your permission and all of that, you are interacting with the things going on in the room.”

– Eric Schmidt, Google chairman, on a panel at the World Economic Forum

The Electronic Computing Home Operator

better known as the ECHO IV was the first smart device and could compute shopping lists, control the home’s temperature and turn appliances on and off.

ECHO IV was a home automation system, hand-crafted with surplus electronic parts and enclosed in oiled-walnut wooden cabinetry, that computerized many of the household chores. This led to the Kitchen Computer which was a \$10,600 Honeywell minicomputer.



Bosch Illuminates Art at the Imaginarium

State of the Art Meets Modern Art

(Editor's Note: Recently, I had the pleasure of experiencing first hand, how surveillance technology can be used in a myriad of interesting scenarios and my time viewing the License 2 Draw exhibit was one such occasion.)

The Imaginarium - To the Ends of the Earth art exhibition made its debut at the Singapore Art Museum recently. The exhibits on display served to inspire and ignite the imaginations of the artists and the spectators consisting primarily of the young but also of the young at heart.

While most of the exhibits were fantastical and even surrealist in nature, one modern masterpiece made its mark with the assistance of Bosch. Bosch's Starlight technology played a pivotal role in the exhibit allowing audiences to experience the exhibit from a multitude of perspectives which only adds to the excitement of the watching the L2D (Licensed to Draw) robot in action.

The L2D exhibit is the creative conception of Vietnamese artist Dam Tran-Nguyen whose aspiration to destroy

the boundaries of time and space by connecting the world through art culminated in the creation of the L2D robot. This highly interactive art on wheels is truly a sign of the times and a reflection of the digitalized IoT world we live in today. With the simple tap of the L2D app, budding artists all over the globe can contribute to a collaborative art piece spawned from the imaginations of people from all walks of life.

Enhancing the experience of modern art is a job for non-intrusive state of the art technology. Starlight Technology has become the gold standard in low light video performance, which makes it the ideal camera for art exhibitions that often require ambient lighting. Starlight cameras comprise of an extensive range of top of the line features such as video analytics that allows users to stream only what is deemed to be relevant. The



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cameras' ability to capture fast-moving objects, even in challenging light conditions with a dynamic range of up to 120 decibels by 1080 pixels makes it the ideal option when it comes to providing art enthusiasts with a crystal clear view of the creative process.

Bosch Starlight cameras do not utilise Infra Red and as such, they maintain the vivid colours of the art on canvas as they are created. The non-intrusive technology records without tainting the spectrum of the colours on canvas when reproducing true colour for audiences on scene and online.

When speaking on his decision in selecting Bosch, the artist Mr Dam Tran-Nguyen conveyed that the Starlight cameras were small and nimble which made it easier to follow the robot's movements. Selecting the best CCTV on the market was optimal in this case as there was a need to record precise movements. He added that his prior relationship working with Bosch along with the level of support offered by the company in terms of their positive energy, willingness to continuously improve the setup for better colour and their ability



to evolve and exercise flexibility all played an important part in integrating Starlight cameras into his work.

The License 2 Draw exhibit will be on display at the Singapore Art Museum (SAM at 8Q) from 6 May to 27 August 2017, as part of the Imaginarium to the Ends of the Earth exhibition. This will be Bosch's second collaboration with Artist Dam Tran-Nguyen since his first showing at the Heritage Space in Hanoi, Vietnam in March 2017

which was part of the Undefined Boundaries exhibition sponsored by the Korean Cultural Center.

All in all, the collaboration between Bosch and Dam Tran-Nguyen proved to be a marvellous marriage between technology and creativity as well a brilliant example of how utilising the quintessential CCTV system can serve as a catalyst to the experience of enjoying art in the immensely connected world of today. **SST**





Could Smart Homes Put Residents at Risk?

By: Sarah Brown Writing for The State of Security

The Internet of Things (IoT) is slowly taking over consumer markets in every category, from coffee makers to fitness trackers. Yet while smart automation might seem like the ideal for consumer convenience, when it comes to home security systems, connecting to the Internet can lead to increased vulnerability.

Smart Cameras

High-tech cameras are becoming increasingly popular among homeowners interested in cyber home security systems. Whether internal or exterior, smart cameras alert residents of suspicious movement and activity. Users can control camera angles and view live feeds from a remote location, all through a Wi-Fi enabled smartphone or tablet.

Vulnerabilities: Researchers from Context Information Security examined a selection of smart cameras and found ways to tamper with the device. By intercepting Wi-Fi network passwords, infiltrators were able to change camera angles and intercept warning messages to homeowners.

The Company's Response: After researchers exposed these bugs and successfully bypassed security walls, the company's security partner fixed many of the concerning issues. Updates to device protection are now automated, and the company should be able to catch problems more quickly, which strengthens its software considerably.

How to Mitigate This Type of Risk: One of the best ways to prevent a smart camera breach is to invest in a reliable camera upfront. Users may have to pay a little more for a premium device, but it is worth the money to keep hackers from gaining access to the home.

Smart Door Locks

Smart door locks make it possible for residents to

control the entry of their home using a digital keypad. By integrating the smart lock with a compatible Samsung SmartThings hub, users can remotely control and monitor the locks over the Internet.

Vulnerabilities: In May of this year, researchers at the University of Michigan conducted a platform-wide study of SmartThings security. Computer scientists found that Schlage locks controlled through SmartThings apps could easily be "picked" by potential hackers. By using a third-party malware app disguised as a battery percentage tracker, the researchers were able to remotely watch users creating new PIN codes, allowing them to easily copy this unique code. They were also able to create alternate PINs that enabled them to unlock the door regardless of the user's original entry.

The Company's Response: Study conductors notified the relevant companies of these risks, spurring speedy work on long-term fixes and repairs. The company is well aware of security issues and firmware updates are ongoing.

How to Mitigate This Type of Risk: Be wary of the mobile apps that work with the smart device. While many users love gadgets with widespread compatibility, greater app access means potentially more exploitable entry points.

Smart Doorbells

One of the newest entrants to the smart tech scene is the Ring smart doorbell, an easy-to-install doorbell that doubles as a camera and intercom. With the help of Ring's mobile app, users can easily see and speak to guests before they've even opened the door. Used in tandem with smart locks, the Ring smart doorbell makes it easy to monitor who is going in and out of a home.



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Vulnerabilities: A security test by Pen Test Partners revealed that a hacker could use the Ring doorbell to access Wi-Fi networks and passwords, opening up other connected devices to potential breaches, as well. At the time the security flaw was discovered, would-be intruders simply needed to unscrew the Ring from the doorframe and press the large reset button on the back to gain access to a previously secured wireless network.

The Company's Response: Ring was quick to respond to the vulnerability, releasing a firmware update almost immediately. The update was also pushed through automatically so that users didn't have to download and install the patch themselves.

How to Mitigate This Type of Risk: Ensure that the smart doorbell and any other smart devices are running on the most updated version of software and firmware. Check the manufacturer's website frequently as well, to stay abreast of any new update releases.

Smart Garage Door

For anyone who perpetually forgets to close the garage after leaving the house for work, investing in a smart garage door opener may seem like a no-brainer. The device and app make it possible for users to control garage door functions remotely, allowing homeowners to keep track of whether or not they've left the garage open.

Vulnerabilities: A Veracode report from 2015 looked at the security of six different smart products and

found that the majority of them did not require strong passwords during initial setup and lacked protection against command interception.

The Company's Response: After the publication of these reports, Company representatives confirmed that the company had fixed all software vulnerabilities except the complex password requirement. The representative also communicated that the company was looking at ways to shore up that password weakness in future updates.

How to Mitigate This Type of Risk: Even if it is not required, users should regularly update their smart device passwords. Each device password should be unique, strong, and hard to guess.

Conclusion

The IoT market is changing the way the world sees home security systems. As researchers continue to test for vulnerabilities, companies will continue to upgrade their security parameters, allowing homeowners to feel safer than ever before. However, the convenience of smart homes also comes with a significant digital maintenance cost. Remember to regularly update apps with the newest versions and to update passwords often. Users should also check the news for security issues and update devices as necessary.

For more information, please visit: www.tripwire.com/state-of-security

Machine Learning Will Be Key to Securing IOT in Smart Homes

By: Ben Dickson

By the end of this year, there will be more than 4 billion connected devices in use by consumers, according to Gartner. These IoT devices, which include smart TVs, tablets, smartphones, notebooks, wearables, sensors, Nest thermostats and whatnot, will make our lives more efficient, more energy saving, more comfortable, and less costly.

However, the same technology that

is making yesterday's sci-fi today's reality is also making us more vulnerable to attacks and is opening up new possibilities for malicious actors to target us while we're within the comfortable confines of our homes.

The reality of IoT security is pretty bleak: Many manufacturers of smart home appliance do not know how to secure IoT devices against cyberthreats; many do not care

and are focused on functionality; and yet a huge number of IoT devices do not even have the supporting infrastructure to run security solutions – heck, some of them do not even have updating mechanisms. Also, do not get me started on consumer negligence. Some think that encryption is all it takes to secure IoT devices but as Ken Tola the CEO of IoT security firm Phantom explains, there is much more to IoT security.

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The fact that IoT is making the internet ingrained in some of the more critical aspects of our lives such as health and city infrastructures makes the situation worse.

However, this does not all mean that IoT is a failed initiative (in fact I myself am deeply opposed to all these paranoid IoT security articles) – it only means that we must take IoT security seriously. In this piece I want to share some thoughts on smart home security, where some of the most serious threats are being discovered.

Now, addressing IoT security in smart homes in the same fashion as we deal with the security of traditional and generic computing devices is not feasible. The challenges are too many. For one thing, managing so many devices will be a nightmare. We are all used to having a laptop or two, a smartphone and maybe a smart-watch, each of which require the installation and maintenance of security solutions to protect them against attacks.

However, soon enough our homes will be equipped with enough connected devices to rival the numbers of connections in a mid-sized company. Imagine having to handle updates, passwords, settings, etc. for dozens and scores of connected devices single-handedly without the support of an IT security team or any number of sophisticated enterprise level security tools and as I have stated previously, many of these devices do not even have the capability to run security solutions.

This is where artificial intelligence and machine learning can come to the rescue. As is the case in many industries and niches, machine learning is complementing human effort and making up for the lack of human resources (in many cases, it is replacing humans altogether).

AI is specifically adept at finding and establishing patterns, especially when it is fed huge amounts of data. Luckily, data is something that we are never lacking of in IoT. There are already several concrete use cases where machine learning can help improve IoT security.

Network-Based Solutions

Instead of looking for per-device security, network-based solutions can help secure IoT devices by creating a protective shield around the home network. This will include defining and registering every device that is allowed to access a network in order to prevent intruders from getting into IoT networks.



But IoT devices must also have access to and be accessed from outside parties such as cloud and mobile applications. Machine learning engines can monitor incoming and outgoing IoT device traffic to create a profile that determines the normal behavior of the IoT ecosystem. From there, detecting threats will boil down to discovering traffic and exchanges that do not fall within the established normal behavior. Alarms can be sent to device owners to warn them about potential risks and suspicious behavior.

Machine learning is already being used in corporate and enterprise networks to help detect threats. The problem is that many attacks are disguised in the form of legitimate requests and normal traffic. Fortunately, with IoT, since the functionality of each device is very limited, it is much harder to sneak in malicious requests and much easier to establish a finite set of rules to determine normal and anomalous behavior.

Also, the traffic monitoring scheme can be applied to interactions between devices in order to find attacks that might get past the outer perimeters and identify compromised devices. Again, although IoT is heavy with machine-to-machine (M2M) traffic, since device functionality and interaction is limited per device, it is pretty easy to single out devices that are engaging in abnormal exchanges with other devices in their networks (e.g. why the hell is the light bulb communicating with the fridge for?).

There are already several cybersecurity vendors that are dealing with IoT security through the centralised, cloud-based, network protection models. These devices are very suitable for smart home IoT ecosystems that are comprised of devices that can't protect themselves.

Device-Based Solutions

One of the problems with a huge number of IoT devices is that they don't have the processing power and storage capacity to run security solutions and store huge databases of threat and malware signatures to protect them against threats.

Again, machine learning can help bring lightweight endpoint protection to IoT devices. Instead of signature-based protection (which can easily be circumvented with trivial techniques), behavior-

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based solutions can be developed as thin solutions that are less resource-demanding and can run without bogging down small processors.

The common denominator of all of the mentioned products is that they were very lightweight and they use pattern-based approaches to deal with threats. Though they're made for workstations and not IoT devices but the concept can easily be ported to the IoT space.

Although I favor network-based solutions, I would not say that any

of the two are complete per se and I would recommend to opt for both as layers upon layers of protection for your IoT devices.

Final Thoughts

As connected devices start to outnumber humans, it will be beyond humans alone to fight threats. We will need to get help from the machines to protect themselves.

The goal is to be able to make the most use of all these connected devices that are finding their way

into your home without having to worry about them spying on you, harming you, or becoming complicit in crimes that will be committed against you. Machine learning has proven its worth in many different areas. Hopefully, it will also help protect one of the fastest-growing sectors in the tech industry.

For more information, please visit: www.bdtechtalks.com. This article was originally published at: www.bdtechtalks.com/2016/07/07/machine-learning-will-be-key-to-securing-iot-in-smart-homes EET

Smart Home Adoption: The Good; The Bad; and The Ugly

By: Harbor Research (originally published in the Smart Systems Newsletter)

The “Smart Home” hThe term “smart” implies intelligent, but you wouldn’t know it from today’s home technology market – a fragmented landscape full of narrow point-solutions, time-sink gadgetry, entertainment obsession, and software/platform incompatibility. Because of this, the next wave of the “Smart Home” is still faced with significant roadblocks and barriers to adoption.

Visions of the “Home of the Future” have been in abundant supply for decades now. Buckminster Fuller, the famous creator of the geodesic dome, was writing about the house as a “machine for living” as early as the 1930s. The “automated home” has been the dwelling place of futurist fiction characters since at least the 1950s, the subject of blueprints and schematics in Popular Mechanics and Popular Electronics and a feature attraction at the 1964 World’s Fair in New York City, where visitors were transported through the “Home of Tomorrow” complete with domestic robotics and the perennially imminent videophone.

The “Smart Home” has always had the potential

to unleash unprecedented value for comfort and convenience as well as safety and security. The sheer volume of manufacturers, service providers and tech companies addressing the residential arena is a testament to its potential. However, today’s smart home market remains fragmented with competing networking standards, a myriad of hubs that claim to control just about everything you can imagine in a home, and legacy

entrenched technology from yesteryear focused on home security, energy, media services and well, you name it.

The Future We Keep Waiting For

Ever since the 1964 World’s Fair, waves of promises about the “connected home,” the “networked home,” and “the digital home” have emerged every few years. The software industry has a term for such promises: vaporware. In the typical American home, products and systems are not much more connected today, and certainly less orchestrated, than they were in 1964.

Consumers consequently now view the “intelligent home” as a mere merchandising slogan for bewildering

“Good product development should always spring from genuine empathy with consumer needs, not merely from a desire to create new markets.”

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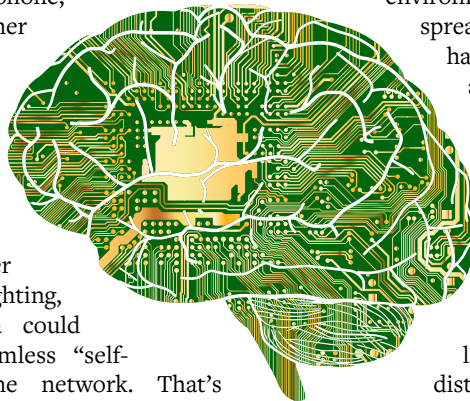


and marginal capabilities that often turn out not to be real anyway. For consumer product companies, the phrase “home automation” has become so discredited that it now provokes fear and loathing rather than visions of glorious innovation. Yes, we’ve had a long history of residential futurism. But to date, almost nothing of real significance has come of it.

Here We Go Again – Infinitely Complicated Systems

The drive to develop technology can inspire grandiose visions that make simple thinking seem somehow embarrassing or not worthwhile. That’s understandable in science fiction or in the futuristic exhibits of a World’s Fair but it’s not a good thing when defining real-world technology standards or delivering tangible value in marketed products.

Good product development should always spring from genuine empathy with consumer needs, not merely from a desire to create new markets. That persistent icon of the future called the videophone, for example, is not a real consumer need; it’s a technologist’s quest. Residential customers would be better served by something like universal connectivity for anything (we still don’t have it), whereby all communications intended for any home or consumer device—cameras, appliances, lighting, thermostats, or mixed media could be managed by a single, seamless “self-provisioning” interface to the network. That’s decidedly less “sexy” than a videophone but it offers a much higher intrinsic value to the consumer.



Over the decades, the seductive images of the “home of tomorrow” have become part of public mythology. The Smart Home has to be a dwelling that “does things for you” in dramatic, futuristic ways. As such, for the last 40 years, the smart home has been expected to run before it ever learned to crawl. Not surprisingly, it has failed to meet that expectation.

Typical home automation is not about ease of use or peace of mind; it’s about gadgetry, complexity and control. Various quasi-standards and connection protocols have been available for years. You can buy kits and hubs at the big-box retailers and online. If you have not heard about most of these products, it may be because you have a life to lead.

Complicated systems that require self-installation and maintenance make all but the most technically-proficient consumers wary to adopt these technologies.

This complexity results in backlash from early adopters with complaints of too many steps for installation and use, along with frequent malfunctions. If a layman cannot setup, interact and troubleshoot these systems, widespread adoption will never occur.

Well Designed Home Tech Should Be Simple, Seamless and Truly Interoperable

Without these features, the true value of smart and autonomous home systems will never be realised. Several adoption hurdles, where the underlying interoperability of devices is the primary roadblock, need to be addressed, including:

- **Lack of Integration** - For all of their sophistication, many of today’s Smart Home technologies are direct descendants of the traditional cellular telephony model where each device acts in a “hub and spoke” system. The inability of today’s popular Smart Home systems to interoperate and perform well with heterogeneous [multi-vendor] devices and environments is a significant obstacle to widespread adoption of these systems. What happens when you also want remote awareness of your electric garage door, your stove, your hot water heater, or your lighting system? Would you want separate connections and proprietary interfaces for all these things? How many user manuals do you really want to read?
- **Poor User Experience** - The lack of interoperability has a direct and distinct impact on user experience. From a technical perspective, consumers desire ease of use and seamlessness across platforms and services. When consumers have to use dozens of different applications to control each of their connected devices, the user experience of one device is muddled by the experience of the disjointed nature of the entire Smart Home experience. Further, consumer commitment to an isolated system or device is risky in the current fragmented residential market. As exemplified by Nest’s recent announcement that it will discontinue support for the Revolv Smart Home hub in 2016 (Nest acquired Revolv in 2014). Revolv customers who had connected all of their devices to the hub are now simply out of luck; not only is the product no longer supported, it will no longer function. This event and others like it are forcing consumers to think twice about the Smart Home products they are buying, or think twice about buying any smart home products at all until user experience is improved.
- **Limited Functionality and Value-Added Services**

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- For the most part, manufacturers are not thinking about user experience relative to all the connected devices in users' homes; instead, they're thinking only considering consumers using their devices, but without the context

of the network and the product in use relative to other peer devices. Players who want to encourage market development need to consider the opportunity to sell elegant and unobtrusive—sometimes even invisible—networked service experiences. This will often mean de-emphasising products per se, which is an understandably difficult thing for product companies to do. After all, if they aren't selling material objects full of features that buyers touch and interact with and admire physically, then what are they selling?

Well-designed technology for the home should:

- Be inexpensive, easy to install, intuitive, and pleasurable to use.
- Add adequate “smartness” to existing home devices, appliances and systems without a wasteful, bewildering array of features.
- Be modular and easy to extend throughout the home over time, integrating multiple parallel manufacturers devices.
- Be extensible (new sensors and devices work with the existing system, preserving buyer investment).
- Offer varying degrees of [remote] control where desired (such as activating a water shut-off in the event of a leak).
- Deliver value without “infinitely incremental” third-party monitoring fees (but can inform third parties if desired).
- Deliver value transparently, in the background, without requiring full owner attention.

As more and more devices come to home market, they will need to function more like orchestrated systems to effectively provide value to consumers. If you have to control or interact with each device individually to make it work, the underlying needs of automation and personalisation will not be met, preventing these systems and the market itself from reaching their true potential. Players across the Smart Home market are just beginning to realise the implications of interoperability and are starting to organise to address the issue. While there are some instances of collaboration between and amongst ecosystem segments, the “I can do this alone” mentality still reigns supreme.

“If my connected garage door opener collects data about my comings and goings, which can translate into a vulnerability if the data were to land in the wrong hands; or if my baby monitor gets hacked, the spotlight this will place on security and privacy will continue to inhibit market development.”

Security and Privacy are Top Concerns for Consumers

With the growth of networks in the home, virtually any electronic product can automatically send periodic signals about its status, with no human intervention or understanding needed.

But, just as enhanced awareness from home systems can be a driver of adoption, the fear of hacking and need for increased cybersecurity and privacy, if unmet, are significant barriers. Cybersecurity in the home may not be the most dramatic application of intelligence and connectivity, but it is indisputably a highly useful one. Simply put, peace of mind technology for the home needs to include more focus on security and privacy. If my connected garage door opener collects data about my comings and goings, which can translate into a vulnerability if the data were to land in the wrong hands; or if my baby monitor gets hacked, the spotlight this will place on security and privacy will continue to inhibit market development. We have not seen very many players at all addressing these needs in any meaningful way.

The Need for Collaboration

With so many competing communication, connectivity and security standards present in the home, coalitions, partnerships and alliances will dictate the success and evolution of the space. Organisations must push the boundaries of collaboration to include many new and unfamiliar participants; what Harbor Research calls “strange bedfellows.” Creative, far-sighted business alliances and partnerships will be one of the most important factors in the creation and acceptance of networked home systems and services.

Smart Home platform vendors that provide the backend connections and enable consumer-facing applications are in a unique position to facilitate this collaboration. Given the diversity of devices, software, services and support that must be addressed from the consumer standpoint, alliances between suppliers represent the best and possibly the only available means to address the issues facing the consumer and also create maximum value for all parties involved. While the clear winners have yet to arise, one thing is certain: in this next phase of market development, innovation will result from collaboration more than any single system or solution.

For more information, please visit:
www.harborresearch.com **ESST**



Chinese Province Shandong Chooses Evolis Systems for the Instant Issuance of Millions of Financial Social Security Cards

Evolis, the worldwide leader in personalisation systems for plastic cards, has been selected by the Social Security department of the Chinese province Shandong for the personalisation and instant issuance of multifunctional plastic cards. The cards are co-branded by the Shandong social security authorities and six Chinese banks and combine a debit card with a social security card.

Over 400 Avansia printers from Evolis integrating retransfer printing technology have been equipped with a specific smart card encoder by the Chinese system integrator Boya Wuzhou before deployment in the banks end of December 2016. The contract, worth 1.2M \$, includes consumables and spare parts. “We are proud that our company has been selected to be part of innovative high tech projects in China where multifunctional smart cards are becoming a real trend,” explains Emmanuel Picot, CEO of Evolis.



Several Million Cards to Be Issued in the Years Ahead

The Eastern Chinese region of Shandong is one of the most populous and most affluent provinces in the People’s Republic of China counting a population of around 97 million people. This innovative project has the aim to further develop the applications of the classic social security card, up to now issued centrally by the social security bureau. The new financial security card can be issued in the six partner banks ICBC, ABC, CCB, BC, PSBC and Rural Credit Cooperative as a multi-application card offering life insurance, medical insurance, unemployment insurance, work-related injury insurance and maternity insurance as well as all functions of common debit cards such as cash withdrawal, transfer, card consumption, investment and wealth management and bill payment, etc.

“Preparations are going very smoothly thanks to our local partner Boya Wuzhou”, says Eirik Bakke, Global Sales Director at Evolis.

Evolis proves once again its expertise in the banking and governmental sector. Evolis has been widely recognised as a leading provider of card issuance solutions to the Banking and Government sectors for the past 10 years.

Numerous projects with governments around the world have been awarded to the French company for the instant issuance of secure identification cards, such as social security cards, national ID cards, voter cards or driver’s licenses and whereby hundreds of thousands of citizens can be equipped with a highly secure official card with minimum delay.

In 2015, Evolis also became the world leader in decentralised issuance of payment cards with more than 55,000 systems installed in bank branches worldwide.

A Dedicated Project Team

To meet the needs of such complex projects, a dedicated project team develops tailored solutions for system integrators willing to support any card-based project, whether local or global. Due to its flexible manufacturing capabilities and

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In 2015, Evolis also became the world leader in decentralised issuance of payment cards with more than 55,000 systems installed in bank branches worldwide.

technical expertise, Evolis is able to position itself both on projects requiring large volumes of card issuance terminals and/or strong product customisation.

Avansia, A System Designed for High Resolution Printing

The Avansia system, released at the end of 2014, represents a new technology for Evolis, that of retransfer. It allows users to print individually in offset quality and distinguishes itself by high durability. Avansia benefits from all types of encoding

that can be combined: magnetic, chip with and without contact, for any type of highly secure card. Retransfer technology is suited for a large variety of applications such as secured access cards, student IDs, payment cards, official identification cards, driver's licenses, and more.

Mr Weimin Dong, Sales Director at Boya Wuzhou explains: "The Avansia system is well designed with excellent printing quality and the technical support from Evolis is always responsive."

For more information, please visit: www.evolis.com SST



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Connected System – Seamless Connected Systems for Smarter Building Security and Automation



Today's technologies are getting extremely disruptive. The Internet of Things (IoT) and digital technologies are evolving too fast leading to very fast end-of-life systems and solutions. This has led to massive technological disruptions and systems displacements to every security and automation industries. Within a security industry where multiple security systems and devices are running concurrently and generating massive amounts of data for security management and decisions, it is truly a challenge for businesses to manage them effectively

Recognising this disturbing technological disruption, deister electronic GmbH, a leading RFID company, reputable for its wide portfolio of innovative security systems and smart RFID solutions for access control and building automation has developed the Connected System with cutting-edge and future-proofing technologies. This Connected System unifies and integrates all critical security systems with future-proofing technologies in one single and secure platform.

Critical security systems where this Connected System unifies and integrates under one single platform can include the following solutions:

1. Access control system for personnel door access
2. Digital locking systems for electronic door access
3. Key management system that automatically controls and manages who have access to which keys
4. Smart Storage system that intelligently controls and audit the asset management
5. Guard tour management system that provides safety checks and guarding management
6. Smart Cameras that provides intelligent IP video surveillance
7. Vehicle identification system that identifies vehicles reliably and accurately



With the Connected System, an intelligent connected and integrated environment is created where multiple mix of the best solutions and systems are combined to seamlessly integrate in one portal with highly encrypted interfaces. The Connected System is managed with just one powerful software – Commander Connect. The Connected System is optimised to unify all these combined systems in a highly productive and integrated manner without compromising security access and data integrity.

The Connected System links the data inputs to users, process and knowledge. The strong combination of real-time connectivity, data exchange and management drives collective awareness leading to optimal control and security towards a smarter building management and operation. In this way, this Connected System revolutionises the way businesses operate, reduces costs, increased scale and transformed operation practices for better efficiency in a very unified and secure manner.

“The strong combination of real-time connectivity, data exchange and management drives collective awareness leading to optimal control and security towards a smarter building management and operation.”

- Mahendran C, Managing Director at Coselec

All the events and management information are available in one software improving efficiency and productivity. Events from one system can automatically interact and communicate with another system. This improves functionality and triggering alerts for any gaps in operations. All systems can be managed, configured and connected with this powerful Commander Connect. It can be scaled with different software modules

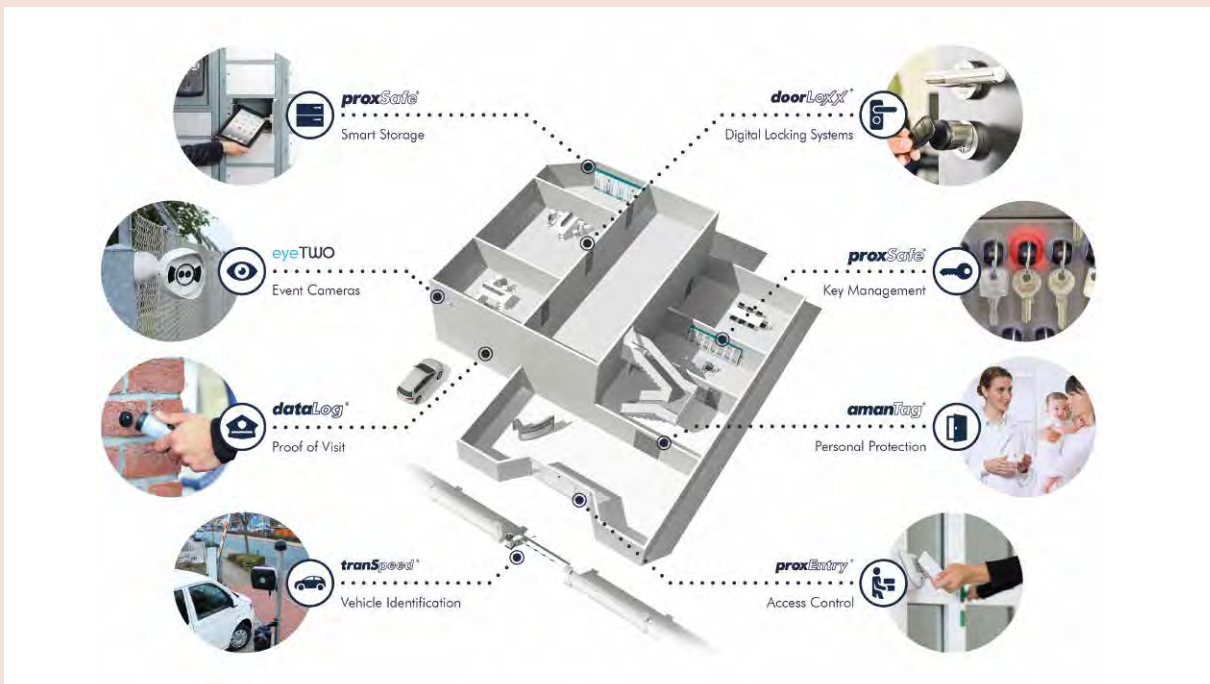
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“Once the systems work together, data can be exchanged and functions become smarter.”

to match the applications requirements. Once the systems work together, data can be exchanged and functions become smarter. For example, if access control is connected to key management, the authorised access at the front door can become a safety check before access to certain keys in a key management cabinet is granted. Similarly, various applications like fleet management, access control, smart cameras and others can be connected and work as a highly efficient, secure and complete system. This is the direction towards a Smarter Building Security and Automation.

Connected System – Seamlessly integrate systems for building security and automation



The best solution is created by the right mix. Each building is different and every project has its individual requirements. Deister electronic has a large and powerful portfolio of solutions for access control and building security. All these systems can be connected to create the ideal solution, because all deister electronic systems are designed to seamlessly integrate and manage with one software.

Benefits of this Connected System:

1. Single platform to monitor all event transactions from various systems
2. Highly encrypted interfaces between systems
3. Future-proofing technology with seamless expansion
4. Cost-savings by eliminating third party interfacing
5. Highly productive and efficient management of the systems and devices

Visit Coselec's Booth: 4G14 Halls
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from 5 – 7 July 2017 at Suntec City,
Singapore.

For more information on this Connected Systems, please contact Coselec Pte Ltd. Email: info@coselec.com.sg SST



Bosch BIS 4.4 Enables Operators to Centrally Monitor and Manage Access Events Across Globally Distributed Sites

Bosch has launched an update of its Building Integrated System (BIS) software. BIS 4.4 further enhances two key functionalities for access control: central cardholder management and the system's overall resilience.

The BIS central cardholder management functionality allows corporate security operators to centrally create, update, and delete cardholders and assign and withdraw authorisations. With BIS 4.4, the operator is further equipped to centrally monitor all access events and alarms from every connected site, such as across the full network of stations of an underground public transport system. It is also a perfect solution for global manufacturing industries or energy and oil enterprises, which typically operate from geographically spread sites.

BIS 4.4 ensures that all multi-site cardholder information and access authorisations are created on a central server but also replicated on all connected site servers. This ensures that the same cardholder information is available in every location. All access events from connected sites are also replicated back to the central server for central monitoring.

BIS ensures continuous operation with its three-layer architecture. The purpose of the third layer, the Master Access Controller (MAC) is to manage scenarios across multiple Access Modular Controllers (AMCs) without the need for management software.



BIS 4.4 further enhances this third layer with a redundant Master Access Control server, so that even in the event of a host system failure, central security operation can continue. Also, in the unlikely event of a server failure, a redundant server can take over operations, communicating with all local AMCs. This ensures that authorized personnel have seamless, uninterrupted access in the event of a MAC failure, but also that centralized security personnel continue to maintain full access control.

This increased resilience particularly benefits distributed systems, systems in critical infrastructure, or manufacturing plants which require full 24/7 functionality such as those typically found in large, global enterprises

with many different sites spread across several different regions.

Alongside the increased system availability delivered by BIS 4.4, the new software version also ensures more efficient licensing management. As all cardholder information and access authorizations are stored and maintained on a central server, and can be replicated to all connected local site servers, data is streamlined, eliminating the duplication of information ensuring optimal license requirement estimations.

In addition to the 12 languages that the BIS user interface already supports, BIS 4.4 provides extended global support with an Arabic Operator User Interface for users in the Middle East. **SST**



BJ's Wholesale Club Maintains a Safe and Secure Environment with Surveillance Software by Genetec

Membership warehouse retail chain leverages advanced IP video surveillance technology to address security, safety and asset protection

BJ's Wholesale Club introduced the warehouse club concept to New England in 1984 and has since expanded to become a leading warehouse club operator in the eastern United States. With its focus on quality goods offered at significantly lower prices than its competitors, it is no wonder BJ's Wholesale Club is one of the top three leading warehouse chains in the United States. Headquartered in Natick, Mass., the company operates more than 180 locations in 15 states, 102 gas stations and three main distribution centers, and sells everything from general merchandise to fresh meat and perishables across its retail enterprise.

The Business Challenge

In a store environment as large as BJ's Wholesale Club, which Charles Delgado, Vice President of Asset Protection for BJ's, termed "essentially a working warehouse," response time to potential incidents is paramount. Each BJ's location employed an older video system comprised of a PC-based DVR and analog cameras to monitor its stores. On average, the system was comprised of 32 cameras per store, typically four PTZs and 28 fixed cameras. But the legacy system was quickly reaching end of life and BJ's found it was spending more time resolving issues with its DVRs, than using them to its advantage.

"We faced a lot of challenges with the old system," Delgado said.

"Maintenance and upkeep was needed often and the system wasn't scalable. The DVRs maxed out quickly and the length of storage was limited. Facing these issues on a regular basis, we quickly determined that an organisation like ours required a future-proof solution. We needed to begin deploying a platform that would meet the needs of the business downstream."



More so, with plans to keep growing the chain, and new stores opening in various locations, BJ's needed to rethink their video surveillance strategy for new installations. Thus, in order to meet future development plans and replace failing older technology, BJ's management embarked on a search for a more robust solution that would meet their current security, safety and asset protection needs.

Retail Safety, Security and

Loss Prevention Needs

At BJ's Wholesale Club, maintaining a safe and secure environment is of utmost importance. Large equipment, such as forklifts, is frequently used to transport goods for restocking and products are commonly stored on large pallets. The combination of a large space, frequent goods restocking and large machinery can lead to accidents but BJ's is committed to minimizing the possibility of incidents before they can occur.

"Our goal is to maintain a safe and secure environment for our team members," Delgado said. "We put a lot of emphasis on preventative measures to ensure we have best-in-class procedures that limit injury."

But the company's legacy DVR system could not effectively help BJ's maintain the most secure and safe environment for its team members and customers. Poor video quality led to lengthy and ineffective investigations; video storage space was limited; and bandwidth limitations restricted the ability to remotely view surveillance footage.

BJ's needed a surveillance software solution that could help it identify theft, fraud, intrusion and trespassing throughout its various stores, gas stations and distribution facilities. The system also needed to be scalable in case camera deployments were expanded and be able to store video for a specific time designated by BJ's, and not

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by standard system capabilities. The retail giant was also interested in moving to an IP solution to leverage the company's network infrastructure."

BJ's wanted to be able to review video remotely and the capability to accomplish that from an IP standpoint is much greater than with traditional CCTV systems. This capability would enable other departments to leverage the system during investigations," said Patrick O'Leary, Director of Sales, Eastern Region, at Checkpoint Systems, BJ's integrator and partner. "The company also wanted to build off its growing IP infrastructure, making an IP-enabled security solution an ideal choice."

And there were other needs: BJ's required surveillance software that could provide the flexibility to integrate video systems with other applications and provide remote monitoring capabilities.

While on the search for new technology, Delgado also stressed that a new solution should help the loss prevention and security teams conduct more effective investigations. Searching through the sheer volume of video BJ's collects can be a time consuming process. With that in mind, BJ's needed a system that would have the capability to integrate with the company's point-of-sale solution to link video with transaction information.

With the help of its long-time partner, Checkpoint Systems, BJ's ultimately decided that Genetec's advanced IP video surveillance software, Omnicast, with network cameras from Axis Communications was the ideal choice for the retail company.

The Perfect Solution

The Omnicast platform manages feeds from various cameras

depending on the store's location and size (the number of cameras is also determined by its assigned risk status). For example, BJ's flagship store in the Bronx has 125 surveillance cameras while one of the company's low-volume stores has 60 cameras.

Since Omnicast is compatible with a long list of major IP camera brands, BJ's chose their preferred brand. They deployed a mix of Axis Communications' high-resolution PTZ and fixed IP cameras because of their reliable image quality and ease-of-installation. BJ's also leveraged its existing analog cameras, which are being converted to digital streams with Axis encoders. All of BJ's cameras networked to Omnicast are monitored locally within the stores and are available for remote viewing from BJ's corporate office, providing enhanced visibility into each store from a remote location.

Also, thanks to Omnicast's Multistreaming feature, BJ's can rest assured that the network won't get overcrowded. BJ's has the ability to pre-set video qualities for live and recorded video, even choosing lower quality video streams for remote viewing, thus optimizing their bandwidth management.

Similarly, the recording and retrieval of video is of critical importance in the retail environment, as every time a camera or a recording device is down is an opportunity for loss. Omnicast's failover and redundancy features ensure BJ's has access to live and archived data at all times, limiting the chance that an occurrence of shoplifting or employee theft occurs unrecorded. Failover servers can automatically assume all functions of a failed component, while redundant servers continuously record all or only high-priority camera feeds.

Omnicast's open architecture also facilitates the integration with various third-party systems

including POS solutions, correlating video to POS transactions and therefore facilitating after-the-fact investigations. BJ's was thrilled to know that Omnicast's Integrated POS Search gives them the ability to identify suspicious register transactions including voids, refunds, markdowns, as well as employee and gift card sales. This cutting-edge tool also gives BJ's the ability to conduct transactional investigations by employee number, by product, by department or any other category defined by their point-of-sale system.

With a single click on an entity (e.g., door or camera) the specific widgets associated to each entity appear and disappear automatically and bring you a world of information such as door status, door unlock actions, camera stream information, camera PTZ controls, and more. If you click on a video display tile, all door-related functionalities disappear given that you have no need for it when your focus is on a camera.

The Benefits

BJ's is leveraging the strengths of the Omnicast surveillance software solution to review video for investigations purposes and also on a non-incident basis to gather an understanding of where a store could modify its processes before a loss or incident occurs.

Because operators are using the solution for multiple purposes, including conducting investigations and trending data, the system's ease-of-use was a significant factor in BJ's decision to deploy Omnicast."

At the end of the day, if the video surveillance software is too complicated for the end user, which in our case is the club level asset protection associate, you're never going to get the true value of your investment," Delgado said. "Genetec's Omnicast platform met my needs, and went beyond

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my expectations, from a usability perspective.”

The Omnicast platform also enables BJ’s to take advantage of the highest quality images, enabling security professionals to accurately identify potential suspects, vehicles, merchandise and even currency denominations, inside and outside its stores. Overall, video quality has improved substantially since Omnicast and the Axis network cameras were installed.

“The video quality is outstanding,” he said. “Overall, we’re definitely happy with Omnicast. It is reliable, user-friendly and flexible enough for us to make changes in configurations depending on the store.”

Genetec not only delivered a perfect solution; it delivered on its reputation of providing outstanding training and customer support. The company works closely with Checkpoint Systems to make sure each member of Checkpoint’s team was thoroughly trained on how to best leverage the strengths of the Omnicast platform in BJ’s retail environment.”

Genetec went above and beyond to provide support and training for



our integration team,” said Delgado. “This speaks to the strength of Genetec’s support structure and its commitment to its clients.”

Although BJ’s is not yet linking the Omnicast video surveillance software with its point-of-sale system, it has plans to do so in the future to enable more effective investigations. It also will look at providing system access to other departments for other uses such as monitoring customer traffic, for example.”

We wanted to invest in the future-proof platform that would adapt with us as our business needs grow,” Delgado said. “In the future, we have plans to integrate Omnicast

with other applications, such as video analytics, point-of-sale systems and access control, and we have the ability to do that. Knowing that my investment is protected is critically important to me.”

With the benefits and scalability of Omnicast running in its stores, BJ’s has taken a giant leap forward in building a video surveillance software system that can help the company best manage shrinkage, increase safety and reduce losses, and make operations more efficient. In fact, Omnicast has been so well received at BJ’s that they are now undertaking plans to expand the Omnicast system into their corporate headquarters, along with Genetec’s access control system, Synergis, to leverage the benefits of a full enterprise solution.”

This success story is a compliment to both Checkpoint and Genetec as well as BJ’s,” O’Leary said. “We all came together and learned the processes, and at the end of the day because of this teamwork, we were able to deploy a solution that helps BJ’s create a safer environment.

*For more information, please visit: www.genetec.com **ESST***

Dahua Contributes to Safeguarding Ports with Intelligent Solution

Man has always been dependent on the ocean. As we began to trade with foreign lands, the importance of ports around the world grew and today they play a critical role as a fundamental part of the world’s transport infrastructure. They provide gateways to the outside world and have enabled nations to transform into export-oriented economies and benefit from foreign trade. With enhanced globalisation, the role of ports has changed but coupled with the benefits

of trade are the challenges and pressures of security management. Dahua Technology, as an end-to-end intelligent security solutions provider, is devoted to making the world safer, especially ports.

Port Security Under Threat

The industry is fraught with contradictions. Whilst ports are rapidly expanding, there is no doubt that they need

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security management, but at the same time there is an urgent need for safe, highly-efficient and manageable services. There is also pressure on operators to ensure proper systems are in place. However, with large port supervision areas and sometimes complex situations, managing this civil defense can be difficult.

Usually a port area covers several square kilometers, but some port zones can reach tens of square kilometers. So covering a large jurisdiction combined with complex transportation, then add a large number of entrances, perimeter fences, long channels, large scale storage yards and the numbers of berths it is not surprising that security needs have led to a dramatic increase in the number of workstations across a port. If only dependent on civil defense, how can maritime security keep checking of regular operations? Now with the development of technology, illegal immigrants and organised crime have also affected safety management. Putting the human resources in place to effectively combat this issue would be very wasteful and in most cases the role would be pretty monotonous. Therefore it makes sense to combine the protection approaches with intelligent defense.

Multiple Management And Resource Sharing Between Different Departments

Exchange and data-sharing is a part of “informationisation”. Ports view each workstation as a unit in terms of achieving video monitoring data. In most cases, the utilisation and management of video and business data are comparatively independent at each station. There is a lack of an integrated, systematic

and multi-level security network system. On top of this, ports have to balance demand for the correct allocation and access control from monitoring centers to sub-centers; sub-centers to monitoring points in customs; port bureaus of public security; maritime bureaus and border defense etc.

Intellectual Reformation of Ports

With the emergence of smart ports, the need for intellectualised safety management has become very apparent, particularly for the automated identification of containers, staff and drivers who frequently entry and exit the harbor. A multimedia integrated management system is required to support the IMS notification at each critical step of flow and could be used in conjunction with a sign-in system and security system. Integrators can obtain basic data via electronic tags and cameras, to realize a whole-process and omnidirectional management control system for incoming and outgoing cargo. At the same time, the port safety can be guaranteed through facial recognition technology; tracking analysis; and video motion tools in cooperation with broadcast and sound-warning devices.

Practical Monitoring

With the continual evolution of video surveillance products and technology monitoring requirements, their application in port zones needs to keep up with the times. Firstly high definition imaging - since ports gather large crowds of people, vehicles and boats across their extensive grounds, if you want to differentiate the details, you need to use a high resolution camera in order to



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support the application. In addition, poor light and remote monitoring at night are considerations. In a harbor, the majority of attacks happen on a dark night or during heavy fog, so it is important how to ensure port safety in this kind of situation. Current high demands for use in ports include remote surveillance, panoramic monitoring and products which must be explosion-proof and anti-corrosive.

As such, global ports are finding themselves in challenging situations. It is critical to find a way to turn this situation around.

Providing State-of-the-Art Video Intelligent Surveillance Solutions for Ports

Dahua technology is dedicated to make the world a safer place. Based on decades of accumulated experience and technical expertise, it is advocating a perfect end-to-end intelligent video surveillance solution against potential danger.

Centralised Administration and Distributed Second-Tier Monitoring

Regarding system architecture, Dahua Technology has adopted a centralised management model for video surveillance systems which considers the port's inner operational management mechanism. The centralised management model belongs to

Dahua technology is dedicated to make the world a safer place. Based on decades of accumulated experience and technical expertise, it is advocating a perfect end-to-end intelligent video surveillance solution against potential danger.

a second-tier monitoring, which means a monitoring center is established in the port to realize centralised management for all system resources. Command centers and sub-control centers meet the requirements of command dispatch and monitoring management from top level customs and police stations to subordinate customs, maritime affairs and frontier inspection departments. Overall, the chief control center is responsible for all access and management of system resources. This includes the monitoring management platform, device access, intellectual analysis system, video storage system and video surveillance system. The control center monitors the general running of port operations, and coordinates safety commands at each unit of the port. In this centralised management model, the control center plays a role obtaining, displaying and controlling the key video resources, while the sub-control centers mainly provide real-time video surveillance and safety guard management for business

departments, such as customs, frontier inspections, and quarantine and inspection departments and so on. It is not difficult to realize that this infrastructure efficiently solves the challenge of sharing and multi-level administration between departments. It also provides highly-efficient and easy-to-operate services for ports.

The Overall System Framework

Although Dahua Technology has an excellent system architecture, in order to further satisfy users it is continuing to research on the particular needs of ports.

Entrance

The entrances to ports have undergone technological transformations in recent years. Dahua Technology has developed an ID system at the entrance control which can identify the license plate. It is a multimedia management system which is combined with a variety of advanced technologies including image contrast, character superimposing, voice function, query service, etc. Users can check the vehicle access and statistics reports from any terminal. Meanwhile, a "Blacklist" database is stored in the platform software, so any blacklisted vehicle will be recognised and prohibited from passing, otherwise, it can pass freely.

For entrance zones, Dahua Technology has started an automatic container equipment identification



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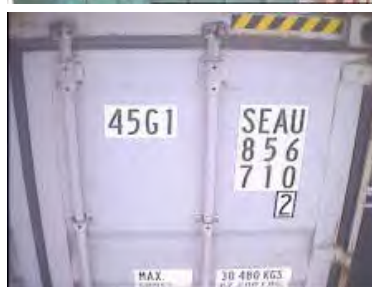
system, which automatically recognises the container number. It has a well-run development kit and software interfaces which make it easy for integration with other system. The system operating process includes interface for immediate alarm triggers, photo shots, number recognition, data storage and data transmission. After receiving the results from the recognition system, clients can undertake relevant operating procedures or back-end processing, such as comparison, analysis or release. The warning function module of image identification is used in container terminals. This can function as an early-warning system and protect cargo from being stolen. An Intrusion Prevention System can also be added to enhance security and confidentiality.

The facial recognition system from Dahua Technology is installed in different places, but has a unified management system. Real-time video surveillance was developed following in-depth research into the technology of neural networks, mass data storage, and data computing technology. The monitor would transmit the images and videos in forms of video stream or image stream. It does not only show people's faces in any given situation, but can also store all still images. The real-time videos and images of vehicles and containers will be transferred to digital information storage. By using the ISO number, container number or facial recognition information and integrating it with the logistics, quay, yard or customs system, users can find the global location information of containers. This means that the daily management procedures are more automated and efficient including the gateway and cargo management, container inventory management, site planning, management charges and other related logistics management. It saves time in checking the

containers, and minimizes rates of manual error, then strengthen safety of quay entrance.



Container Numbers in Vertical and Horizontal



Multi-line Numbers



Country Code and Container Code "KR 4532"

Berth Monitoring

Berth monitoring is the most important step in the process of port protection. For the loading and unloading of cargo in large container terminals, there is high demand for high-definition video surveillance to record all information. For the coastal location, there is a need for cameras with a wide dynamic range, backlight compensation, and an anti-shake function. Dahua PTZ is equipped with quick and smooth control, high quality image and anti-corrosion protection, so it is a well-designed to berth monitoring. This camera is suited to even the harshest of anti-corrosion conditions. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning. With a temperature range of -40°C to +70°C (-40°F to +158°F), the camera is designed for extreme temperature environments. The camera conforms to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP68 rating makes it suitable for demanding outdoor applications.

Yard Monitoring

The container yard, is a crucial stage of the cargo distribution process. It is a wide open space but can present complex issues because it can easily become crowded with a vehicles and people making it hard to identify personnel.

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So the key facilities should be monitored through using 24-hour uninterrupted monitoring. Then for critical places, comprehensive surveillance should be added for the loading and stacking points of valuable cargo. The system needs to be reliable, stable and able to respond quickly. Any abnormalities can be immediately detected and are linked to all departments so that timely action can be taken. Specifically for this issue, Dahua Technology has introduced a TPC series of thermal-imaging cameras, which include thermal imaging technology using small and medium sized gun-shaped cameras for night protection. Unlike other companies using laser infrared lighting technology, Dahua Technology uses thermal imaging technology, which is far more effective than other methods. Specifically designed, this dome camera has a separable lens and wiper function, which means it can adapt to extreme weather conditions and can be installed in an open yard.



Port Perimeters

Since ports usually cover customs and excise, only authorized personnel are permitted. For

perimeter areas, first of all, we have to consider factors such as long distances, the effects of night images and intelligent alarm systems. Dahua's thermal-imaging dome camera's monitoring range can cover hundreds of meters and even a couple of miles. The thermal imaging system can set up an intelligent intrusion analysis and alarms, coordinating to discover and detect illegal personnel and foreign object. Once it sends an alarm signal to a control center, it will issue visual images to staff on duty for confirmation and identification. It can also recognize the intruder and track the location using video image. It has excellent performance for fire detection, overstepping and zone intrusion.



Thermal Camera

Channel Monitoring

Channel monitoring faces problems, such as a short monitoring range, low resolution and poor night vision. The Dahua panoramic camera has a wide-angle view, and efficiently improves the capability of emergency commands. This product has a 180degree tiled display and aims to help supervisors directly visualise the whole channel and its surrounding environment. At the same time, it can use thermal-imaging cameras for long distance detection at night in order to quickly find the target.

Summary

In the future, ports will become more intelligent reforming traditional management approaches. Using high-definition, intelligent and internet video technology, and combined with effective products and systems, Dahua Technology provides global port units with safe, efficient and easily-operated intelligent solutions for port video surveillance and the safeguarding of ports!

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



Thermal Effects



Amano Drugstore Installed with State of The Art Security Solution By Bosch

- To cope with increasing competition, pre-sales marketing data analysis is getting more important
- FLEXIDOME IP camera provides high quality HD image under low-light conditions
- FLEXIDOME IP starlight 7000 HD camera built-in Intelligent Video Analysis triggers relevant alerts and quickly retrieve data

Along the spacious underground passages in Nagoya, you will find dozens of Amano signboards. Amano started home delivery service for drugs over 100 years ago and transformed their business to a retail chain. To meet ever-changing customers' needs, Amano further diversified its business to photo printing services, cosmetic shops, convenience stores at hospitals, and pharmacies. They are now running about 30 drugstores, which are located downtown and other places such as airports and hospitals around Nagoya city.



Competition in the industry has been intensified for the past decades. Some of the bigger drugstores have greater distribution channels such as convenience stores and urban supermarkets in downtown areas. Drugstores are stepping up their game to look at technology that will help to improve their store's performance. Amano recognized the importance of pre-sales marketing data analysis, such as the amount of foot traffic and how much foot traffic led to actual purchase on top of the usual point of purchase data. Amano began looking for security cameras that not only offer security benefits of protecting the store's assets but also provide analytics-based business intelligence.




"The timing couldn't have been better. Amano engaged us for this project as they were about to remodel one of their stores. We immediately proposed Bosch camera and they agreed," said Mr Michihiro Watanabe from Adsec.

Bosch cameras, 1080P FLEXIDOME IP Indoor 5000 cameras and FLEXIDOME IP starlight 7000 HD were installed to provide an overview of the store. The key factor in selecting these cameras was high quality HD images produced in extreme low-light environments. After the installation, Amano started to monitor their sales floor activity and also used the FLEXIDOME IP starlight 7000 HD built-in Intelligent Video Analytics feature for retail analysis.

According to Mr Michihiro Watanabe, shortly after the Bosch cameras were installed, they received a call from the police that a suspicious person might have passed by the store. Adsec quickly retrieved the video footage from the Bosch cameras and submitted it to the police. The clear image allowed the police to identify the suspects and use it as evidence against them.

Amano is impressed with the fast and efficient process of retrieving the relevant images and commendable clarity of images produced by the Bosch cameras. "Amano is confident of Bosch quality and looks forward to tapping into the full capabilities of the camera functions to develop better merchandising and efficient store operation in the future," commented Mr. Hideo Niimi, Executive Director of Amano.

For more information, please visit: www.boschsecurity.asia 



Harper Court Partners with Skynet Security

Located in Chicago's Hyde Park, Harper Court is a redevelopment that delivers 1.1 million square feet of retail, commercial, and residential real estate to the heart of Chicago's Mid-South communities. Harper Court offers vibrant entertainment, dining and shopping to the Hyde Park neighborhood.



All parking pay stations were equipped with fixed Axis Outdoor Dome cameras with the purpose of capturing license plates of entering/exiting vehicles. Indoor Axis Dome Cameras were used to monitor and secure the entry points, lobbies, indoor pay stations, and back of house areas of Harper Court.

Surveillance cameras are an essential component to the security of any commercial building, which is why Harper Court was looking to partner with a security integrator that can deliver a state-of-the-art, effective CCTV solution.

Situation

Harper Court began planning for security before its construction. They wanted to implement a comprehensive system, one that would control all access points, allow for emergency management, and secure the entire premises. Looking for a trustworthy, professional integrator to align with, Harper Court chose Skynet to design and build their security system.

With multiple levels of parking, a number of retail spaces, University of Chicago offices and an LA Fitness, the security design required meticulous planning. We wanted to provide Harper Court with a system that would maximise the return on their security investment, while still allowing the flexibility for future expansion. There are five doors restricted only to authorized personnel. In addition, there are three levels of parking, two parking kiosks, an open parking lot, and restricted areas that needed surveillance monitoring and emergency management systems.

Solution

Skynet Security provided Harper Court with thirty-four Axis cameras, along with emergency phones and electronic access control. Throughout the three-level parking garage and outdoor open lot, fourteen Axis Pan-Tilt-Zoom cameras were strategically placed for comprehensive high-resolution video coverage.

Thirty-four two-megapixel IP cameras can consume a lot of internet bandwidth and hard-drive space. In order to maximise the video frame rate, resolution, and streaming ability without toggling their LAN network, Skynet tied the entire IP system on a separate, one-gigabit managed network PoE switch. We built a robust server with fourteen Hard-Drive Disk slots with RAID6 and 28TB, allowing for over 45 days of video storage protected against HDD Failure.

Benefits

Skynet Security maximised Harper Courts security efforts through the design and installation of Emergency Phones, Electronic Access Control and IP Video Surveillance (CCTV). The strategic placement of eight emergency phones provides safety measures to Harper Court visitors and tenants. The access control system provides limited access, along with user logs, to restricted areas. The IP CCTV system provides high-resolution live and recorded video covering the entire property along with video analytic software to efficiently monitor the system.

With Skynet's customised IP CCTV System, Harper Court was able to grant remote user access to its parking vendor to effectively manage their kiosks and the entire parking lot, which allows them to effectively mitigate liability and revenue loss. Furthermore, Harper Court utilises the system for live monitoring of their premises which enhances the security of its building tenants and visitors.

For more information, please visit: www.skynetsecurity.com SST



Keeping Guests Safe in the Lap of Luxury with Cutting-Edge Intelligent Face Recognition Technology at Lemon Tree Hotels

Introduction

The need for the hospitality industry to raise the level of security at their properties has gone up significantly. Recognising this, Lemon Tree Hotels amplified the existing security measures at their upscale hotel, Lemon Tree Premier, Delhi Airport, New Delhi, by adopting NEC's top-end face recognition solution which can help hospitality businesses deliver a more secure and elevated guest experience.

Challenges

Situated in the upcoming Aerocity Hospitality District, in close proximity to the international airport, Lemon Tree Premier needed to have a top-end surveillance and security system. The sheer number of people visiting any hospitality property during the day makes it very tough for the security personnel to keep tabs on everyone. Thus the surveillance of the 10-storey, 81-room Lemon Tree Premier was recognised as a significant challenge as it was difficult to track all that was happening throughout the property.

Another challenge was to identify the solution that would be the best fit with the detailed mandate and prescribed guidelines provided by Indian security agencies. Additionally, the hi-tech face recognition solution required the hotel to invest in upgrading the existing IT infrastructure. Both the IT and the Security teams had to rapidly move up the learning curve, in order to suitably test, deploy and man the solution.

Solution

Lemon Tree Premier, Delhi Airport needed a solution that helped identify faces throughout the property with high accuracy and auto generated alerts. "Being the 3rd largest hotel chain in India, by owned and operated rooms, safety and security of guests has always been paramount to us. At Lemon Tree Premier, Delhi Airport, our flagship hotel it was thus essential that we adopted a solution that would merge innovative and path breaking technology with accuracy and consistency, but most importantly met the stringent guidelines defined by the Indian Security agencies," stated Rahul Pandit



the President and Executive Director of The Lemon Tree Hotel Company.

NEC's face recognition solution is designed to capture fast and accurate facial images from LIVE CCTV camera over a standard IP network and undertake matching the captured faces to the database at the backend in real time. The greatest advantage of the solution lies in the fact that the hotel staff need not disturb the guests in order to verify their identity since it captures facial images from a distance.

Describing the project in detail, the Project Head of NEC India said, "We were asked for a security system that would let the hotel staff identify a visitor even before he entered the hotel. This required us to engage deeply with the hotel security team to not just understand their exact requirements but also conduct numerous Proofs of Concept (POCs) to demonstrate the value proposition of our face recognition solution". He added that the strength of NEC's face recognition technology, NeoFace®, lies in its tolerance of poor quality images. With high tolerance for low quality, highly compressed surveillance videos and images, including web images, the system has the capability to register and generate match results for the control of both 'black-list' and 'white-list' images using digital photographs. The captured face is compared to all facial templates in the database, irrespective of any attempts by the person to conceal identity via the usage of caps, hats, glasses or slightest change in the facial hair which

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helps determine whether the person is blacklisted or a welcomed VIP customer for the particular facility.

The Project Head also informed that the hotel management is very interested in exploring the 'white-list' management that notifies the staff to the presence of a VIP customer and thus enables them to offer exclusive access or privileges to the guests as a part of enhanced customer service. As a result, every time the guest approaches the front desk, the staff will get a pop-up with the details of the guest, which will enable them to greet the customer by name and provide appropriate services.

Results

NEC's face recognition solution definitely sets a new standard for security in the hospitality sector in India. The solution deployed was tested for various use cases

and potential challenges in recognising a facial image captured from a live CCTV camera and it delivered accurate results every time. The ability of the solution to respond in real-time is a great advantage as it ensures there is no time gap between identification of an individual and personalised reaction by the hotel staff. "We are confident that with face recognition solution deployed at the property, we will be able to provide a much improved security setup and hence better customer service at Lemon Tree Premier. The technology is perfect for providing unobtrusive and seamless 360° security; and the fact that it can be monitored remotely provides that additional piece of mind. We are currently evaluating its application for 'white-list' management of our VIP customers to provide a personalised experience and believe it will provide the additional differentiation in our customer service," added Mr. Pandit.

For more information, please visit: www.nec.com

Medeco XT Delivers New Level of Key Management for the United Supermarkets Chain

Retailers lose more than \$44 billion annually due to inventory theft. Theft results in an average shrinkage rate of 1.47 percent. However, grocery stores and supermarket retailers

see an above average shrinkage rate of 2.60 percent.* The greatest portion of this theft is attributed to employee theft (41 percent) and shoplifting (33 percent) with one in five internal theft cases involving

collusion with an outside partner.

A retail operation, such as a grocery store or supermarket, involves being open 24 hours a day, nearly 365 days a year, as well as overseeing

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employees at multiple staff levels. As United Supermarkets continued to grow and expand, management knew it was time to find a solution that worked in existing stores, as well as one that could be deployed in future stores, across multiple staffing levels.

Expansion Brings Challenges In Security

United Supermarkets is a Texas-based, family-owned retail grocery chain with 51 stores in 30 markets. With nearly one million shoppers each week, operating under four distinct brands (United Supermarkets, Market Street, Amigos, and United Express) United Supermarkets growth and brand expansion has been successful, but with the expansion came security challenges.

In 2012, United Supermarkets took stock of its security systems and recognised it did not have an efficient way to manage keys, ranging from who had keys, to when keys were issued, and most importantly, whether or not the keys were being duplicated. Having a mechanical, non-patent system, made the cost of re-keying and system maintenance significant. "There were times when we wondered how many keys were out there for certain stores and who was using them for what purpose. We were also spending anywhere from \$100 to much more—re-keying in just one location," said Marcus Young, United Supermarkets Director of Asset Protection. "We needed a system that would allow us to manage access from a centralised location."

New Level of Key Management

While working with United Supermarkets, the Medeco Engineered Security Solutions (ESS) team identified Medeco XT as the right solution. Medeco XT offered all the features United Supermarkets needed in a retail

"There were times when we wondered how many keys were out there for certain stores and who was using them for what purpose. We were also spending anywhere from \$100 to much more—re-keying in just one location," said Marcus Young, United Supermarkets Director of Asset Protection. "We needed a system that would allow us to manage access from a centralised location."

- Marcus Young, Director of Asset Protection at United Supermarkets

security system:

- System management from one central location
- No cost re-keying for a lost key
- Power to disable keys without changing locks or keys
- Ability to change access levels, plus control access at the individual level
- depending on time of day, shift worked, after-hours work, or holiday staffing.

"The Medeco XT solution means no more on-site keys ever. We have tighter access control at the individual level, and we're able to drill down into data and track usage like never before. The system means if we need to know everyone who used a certain door, on a certain day, we can run one report and have that information at our fingertips," said Young.

With Medeco XT, United Supermarkets now has a way to establish audit trail information by instantly seeing who used their access in case a manager needs to check an issue. Medeco XT software allows United Supermarkets to pull a report giving managers specifics on who used the key, where, and when, so they can immediately address internal theft issues. The Medeco XT product line even allowed United Supermarkets to monitor access to unique locations



such as trash compactors through the padlocks.

New Level of Key Management

Medeco XT proved to be a good investment for United Supermarkets. As Young noted, the system paid for itself in terms of the cost of re-keying in less than one year. Young added that for the first time in United Supermarkets' history, they have a centralised view of access at the store level.

Continued Expansion

United Supermarkets incorporated the Medeco XT into a new Market Street store that opened in Lubbock, Texas with plans to use the Medeco XT in all new stores moving forward and to retrofit existing stores.

For more information, please visit: www.medeco.com 



MIC Cameras Cover The Bat Caves Of Borneo's Mulu National Park

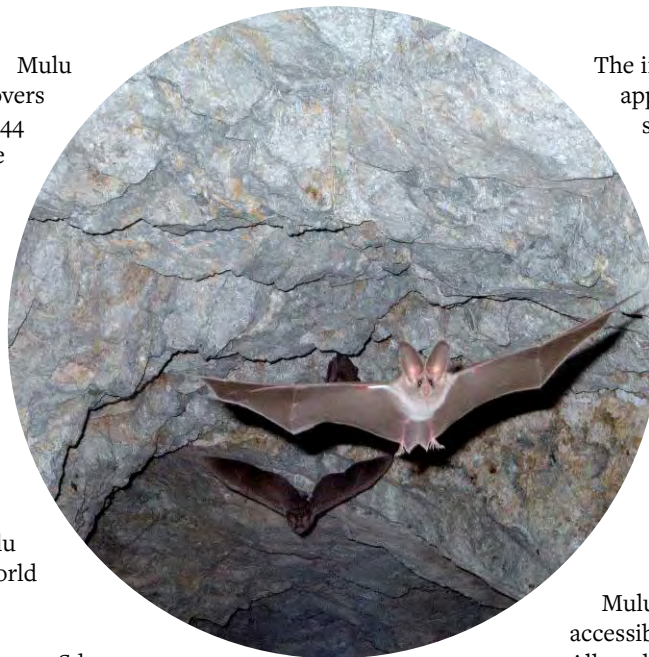
In 2006, the original "Batcam" project was completed against the most grueling of installation environments possible. In 2016, the project required a refresh with a camera that could handle the extreme conditions.

The Gunung Mulu National Park covers an area of about 544 sq. km, as big as Singapore and about half the size of the Blue Mountains National Park in NSW, Australia. Crowned a World Heritage Area by UNESCO in 2000, this tropical rainforest is home to some of the largest documented cave systems on the planet. Operating as a national park since 1974, Mulu obtained UNESCO world heritage status in 2000.

Borsarmulu Park Management Sdn. Bhd is an international company, based in Sarawak, that provides complete tourism services for the industry and the Borneo Government, and manages Mulu.

The Mulu Batcam project's broad requirement was to enable the capture of clear video images and sound from selected sites within the cave network to observe and monitor wildlife, and to provide real-time surveillance of the remote sites. Within this giant space, the environment is oppressive; day-time temperatures typically hover around 30°C, with humidity ranging up to 99%.

In 2006, CTG Security Matrix Pty Ltd facilitated the initial



The images were also required to appear on an all-weather TV screen at the so-called Bat Observatory, situated next to Deer Cave.

An extremely robust camera was required to function in total darkness, in a remote cave set in the depths of a tropical rainforest. The cameras were to be placed in the biggest cave chamber in the world (175 meters wide and 120 meters high).

Mulu is a truly wilderness, accessible only by plane or boat. All tools and equipment had to be own in, then carted or carried to the destination, and painstakingly installed in the cave system.

installation, including the back-breaking task of cabling kilometers through the inhospitable jungle environment.

When the Batcam project required an update in 2016, Mr Charles Tomas, Principal and Specialist Operational Security Advisor at CTG Security Matrix, was called upon once again. Having some recent experience working with the Bosch MIC cameras, he recommended them for the challenging task - to place 3 ROV cameras inside the largest cave passage in the world, to be connected and remotely controlled via a fiber optic line some 3.8 km away.

The Bosch MIC cameras were the perfect choice for this harsh environment, and more than met the requirements. Park visitors, Borsarmulu Park management and scientists can now observe the bats (as well as other creatures that dwell in the cave system) up close without disturbing their habitat. Borsarmulu Park management and CTG Security Matrix agree that the Bosch MIC cameras are an amazing product, working in a very challenging environment.

For more information, please visit:
www.boschsecurity.com.au



PMT Installs Axis, Milestone, Quantum CCTV at Eastlands

PMT Security Systems has delivered an open-platform 600-camera CCTV solution from Axis, Milestone, and Quantum, to a major shopping centre that provides all the coverage the customer needs, supports enhanced analytics, and fits neatly into the shopping centre's existing data centre — all while meeting tight budget constraints.

PM T Security Systems is an Australian-owned company integrator that provides design, installation, and commissioning for integrated electronic security systems on retail, commercial, government, hospital, educational, industrial, and small business sites but this application presented the team with a difficult problem.

A large shopping centre was undergoing major renovation and refurbishment of everything from décor to video surveillance systems and the company managing the centre wanted to upgrade to the latest state-of-the-art video monitoring and analytics systems but was having trouble finding a solution that would fit the centre's budget and the available space in its data centre.

The old system comprised roughly 300 analogue and low-resolution digital cameras, and kept the data for 2 weeks before it was over-written. The system was used primarily for monitoring current activity in the major public areas, so the network, storage systems, and data centre were all designed with that load in mind. But the customer wanted to make the new system perform on an entirely different level.

"They wanted to cover more areas and have much higher-resolution images to make identification of activities and individuals much more specific and reliable," explains Darren Taylor, managing director at PMT Security Systems. He added that they wanted to roll out newer technology with the capability of turning security images into a tool for making better business decisions for the centre and its tenants."

To provide more coverage, more cameras would be needed — about 600 more cameras just for a start. The new system needed to provide higher resolution images, and the data needed to be retained for a much longer period of time, for 90 days. The software had to provide additional levels of recognition, tracking, and analysis. The new solution also had to fit the customer's budget, and the space in their existing data centre.



"The extra resolution, additional cameras, and longer retention were essential to giving the analytics software the data to provide an additional layer of business intelligence," explains Daniel McMahon, project manager at PMT.

"Video analytics have come a long, long way in the last few years. The best solutions give good approximations of demographics for people visiting the location, including age and gender, and overlay that data with behaviour patterns. The means businesses can see at which displays or stores customers spend the most time. "It's a potentially powerful tool for helping retailers do a better job of serving their customers, but it takes a lot of data to make it work. It meant upgrading from relatively simple video appliances to a full-blown enterprise scale network and storage system."

Making the right decision about which solution to install took time. "We looked at solutions from literally everybody in the storage and surveillance market," added Jack Caponnetto, operations manager at PMT. "We eventually found a solution set combining technology from several different vendors that solved all the problems neatly and worked together seamlessly."

PMT recommended cameras from Axis Communications. "Axis provides premium IP cameras with the range of

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resolutions that we needed for different applications,” Caponnetto says. “They offer pan, tilt, and zoom, protected dome mounting for areas needing that feature and they do an incredible job of pinpoint autofocusing, even in really challenging light conditions.”

The team chose Milestone Systems for video management software (VMS), and RetailNext for business analytics software. “Milestone is really the best choice we found for managing the network and all the pieces, and making sure that everything came together,” said Project Manager McMahon. “RetailNext gives end users what is probably the most advanced set of point-of-sale, big-data analytics on the market. Both Milestone and RetailNext work together via open architecture APIs to provide maximum flexibility and value over time.”

All of the data from the cameras, however, substantially increased storage requirements. Surveillance systems have unusual storage requirements that can be particularly challenging. “Data is ingested around the clock from many different sources at the same time, so a system needs to have very high input performance,” explained Simon Vagg, systems engineer at PMT Security Systems. “But once the data is set, it has unusually low I/O requirements.”

In this application, files are written off to portable storage if a file is needed for an investigation, and the analytics software moves metadata to separate servers. But neither of those activities put a heavy I/O load on the disk. The team looked at storage products designed for general-purpose IT environments, but discovered they would be expensive and more complex, which would lengthen the project timeline and delay the rollout of more cameras and features.

“The best solution that we found for the storage side of our solutions was Quantum’s StorNext software and QXS-5600 disk,” says McMahon. “The StorNext M440 appliance is easy to install and maintain. Its StorNext 5 software includes a high-performance file system specifically designed for video applications, so it writes data over many parallel streams for maximum performance.”

The QXS disk, besides providing cost-effective capacity, works with StorNext to provide very high-streaming performance, industry-leading density, and easy data retrieval through the VMS—all features that are critical in many security applications.

“With the StorNext solution, we were able to design a system that packed a full petabyte of capacity into only eight rack units. It gave us a combination of cost savings and simplified installation that let us pull the schedule in and give our customer more of what they wanted much faster,” says Caponnetto. “We couldn’t find any other storage solution that even came close. It was the key to making the new system work for the upgrade.”

In the new system, data is streamed from 600 Axis IP cameras to the QXS-5600 storage through the StorNext software under the control of the Milestone VMS solution. Data is written from the disk to the RetailNext server for analysis and to portable storage when files have to be retained or viewed in a third-party security setting.

“We have implemented the system. It is up and running, and it has been flawless,” says Taylor. Just as important to PMT and the customer as the individual pieces of the solution is the fact that all the pieces work together easily in an open architecture, the companies’ support teams can collaborate effectively, and additional storage can be added easily as more data is created.


“Milestone is really the best choice we found for managing the network and all the pieces, and making sure that everything came together.”

- Project Manager

“As we add more cameras and higher resolution formats, we can see a future need for even more capacity,” says McMahon. “We like the fact that StorNext gives us the option of integrating a very high-capacity, very low-cost tape archive to handle all that data.”

“The security industry is undergoing a real transition — moving from small, lower-res appliances to much higher value-added solutions that integrate powerful specialised storage technology,” he says. “StorNext helped make that transition easy for our customers — and for us.”

“There are lots of people that say they can work well with others but it really is true for Axis, Milestone, and Quantum — the 3 key foundations of this solution,” he says. “We had cooperation from all the partners during the whole process. Once the system was up and running, it took almost no admin time at all — that is incredibly important for retail settings, which typically have limited IT resources. We have been so happy with this solution that we have already proposed it to several more customers. We plan to make it the standard solution that we recommend.”

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



Sheraton Saigon Hotel and Towers Improves Overall Situational Awareness with Arecont Vision® Megapixel Cameras

HD images, Wide Area Coverage and Low-Light Capabilities Surpass Expectations

- *76 Arecont Vision® megapixel cameras replace over 160 analog cameras with greater area coverage.*
- *Megapixel imaging and exceptional night viewing performance enhance overall security.*
- *Arecont Vision's megapixel solution delivers tangible ROI and lower TCO with increased performance and reliability.*

“We demonstrated the superior performance of Arecont Vision’s megapixel cameras to provide wide area coverage in almost any lighting condition. Mr. Linh’s staff at the Sheraton Saigon Hotel and Towers was very impressed and we designed a new video surveillance solution built around Arecont Vision’s imaging technology,” said Mr. Thomas Tran the CEO of Citek Corporation.

Customer

Located in the heart of Ho Chi Minh City’s vibrant business and entertainment district, the Sheraton Saigon Hotel and Towers is just steps from the city’s most celebrated sites, including the Reunification Palace, Ben Thanh Market, and the Opera House.

The facility’s 470 spacious hotel rooms, studios, and suites are designed to provide comfort and style with personalised service and convenient amenities. True to the hotel’s brand, the Sheraton Saigon Hotel and Towers prides itself on providing the utmost in customer care, service and safety.

Challenge

The Sheraton Saigon Hotel and Towers installed a video surveillance system approximately 10 years ago. The system included 160 analog cameras connected to ten 16-channel DVRs. Since then, the facility expanded and found the legacy system was inadequate to protect the renovated property and inferior compared to present day technologies. “We needed to install a new video surveillance system that would increase overall situational awareness while delivering the highest levels of cost-efficiency,” said Mr. Tan Linh, Chief Engineer at



Sheraton Saigon Hotel and Towers. “Our preliminary research indicated that we should look at a networked solution utilising megapixel imaging technology.”

Megapixel Solution

Mr. Tan Linh contacted Mr. Thomas Tran, CEO, at Citek Corporation for recommendations on a new video surveillance system design. Citek specialises in the integration of information and telecommunications technologies with an operating philosophy based on “Our customer’s success is our success.” Citek became a certified Arecont Vision® reseller partner in 2009. “We demonstrated the superior performance of Arecont Vision’s megapixel cameras to provide wide area coverage in almost any lighting condition,” said Mr. Tran. “Mr. Linh’s staff at the Sheraton Saigon Hotel and Towers were so impressed that we designed and built a new video surveillance solution around Arecont Vision’s imaging technology.”

The new video surveillance system Citek designed for the Sheraton Saigon Hotel and Towers employs 76 Arecont Vision® megapixel cameras. These cameras deliver greater area coverage than the previous 160 analog

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cameras. In addition to the savings from using far fewer cameras, the Arecont Vision® megapixel cameras are PoE which means reduced equipment and installation costs.

The Arecont Vision® megapixel camera deployment includes: fifty-four AV2115DN MegaDome® 2 MP dome cameras, fifteen AV3115DN D4F/D4S Series 3MP dome cameras and seven AV5115DN MegaView® 5 MP compact cameras. The 2MP AV2115DN MegaDome® camera features dual H.264/MJPEG compression, true day/night operation and a 4.5 -10mm megapixel varifocal lens in an IP66 vandal resistant housing.

Additional features include ½” CMOS sensor with superior low light performance, 24fps image rates, multi-streaming, forensic zooming and PoE operation. The AV3115DN MegaDome® 3 MP camera features dual H.264/MJPEG compression, true day/night operation and an 8-16mm megapixel varifocal lens in an IP66 vandal resistant housing. Additional features include ½” CMOS sensor with superior low light performance, 15fps image rates, bit rate control, multi-streaming, forensic zooming and PoE operation.

The AV5115DN MegaView® 5 MP flush-mount indoor dome camera features dual H.264/MJPEG compression and a 12mm megapixel varifocal lens. Additional features include 14fps image rates, bit rate control, flexible cropping, privacy masking, extended motion detection, multi-streaming, forensic zooming and PoE operation.



All features are used by the Sheraton Saigon Hotel and Towers. System cameras are controlled from a centralised security center using an Exacq Video Management System (VMS) and NVR recording solution.

Megapixel Benefits

According to Mr. Linh, the deciding factors in selecting Arecont Vision® megapixel cameras for his new system included superior image performance, greatly expanded surveillance coverage, better low light imaging, forensic zoom and excellent recording capabilities. All attributes helped the Sheraton Saigon Hotel and Towers exceed its initial video surveillance objectives for the new system. In addition to improving overall situational awareness under virtually any lighting condition, the implementation of Arecont Vision® megapixel cameras resulted in substantial savings due to reduced initial equipment costs, the elimination of related equipment such as localised power supplies, and the associated costs of installation.

Since Arecont Vision® megapixel cameras feature such impressive digital pan/tilt/zoom capabilities without moving parts like conventional PTZ cameras, they are less likely to fail in the field further which reduces maintenance and total cost of ownership.

For more information, please visit: www.arecontvision.com SST

The Perks of IP Video at Starbucks

With more than 20,000 stores globally, Starbucks Coffee Corporation has grown enormously since it opened its first store in Seattle's Pike Place Market in 1971. While the company has excelled at turning out perfect cups of coffee and expanding its empire across the globe, making sure that its video monitoring system keeps up with company needs has been more challenging.

“We went through a pretty rapid growth curve at Starbucks, where we were opening [around] 1,200 stores a year,” said Sean Dettloff, senior manager of physical



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security solutions for Starbucks. Each new store received new equipment, but over time it became outdated because there wasn't a life-cycle-management program.

The older equipment did not allow for multiple users to access cameras in stores for review or automatically notifying the Starbucks security team if a camera was not functioning.

"We were only as aware of our system as what was being reported to us in the field," Dettloff explained. He added that if a store manager reported a broken DVR or a broken camera then they would be able to fix it. However, the system did not make it easy to monitor which cameras were offline in a proactive way through central reporting. The issue was brought to management's attention and it was agreed that a new solution was needed.

Security began reaching out to vendors to learn about their video monitoring systems. They were looking for a product that could handle a large enterprise like Starbucks, that had excellent central reporting and enterprise management capability and that was scalable. After getting information back from numerous providers and testing products, Starbucks chose the Security Center with Omnicast IP video management system (VMS) by Genetec, Inc., of Montreal, Quebec, Canada.

Security Center manages video

surveillance on a single open platform that allows users to incorporate solutions such as video analytics systems and business management systems, from other vendors who have formed partnerships with Genetec. This open platform can then be accessed by authorised users from a main security center or remotely from any device through an Internet portal.

What really sold Starbucks was the system's ability to handle up to 150,000 cameras and an unrestricted number of workstations, said Traegon Hon, Business System Analyst at Starbucks. While Starbucks is initially using the system in its North America locations and other regions separately, it would eventually like to be able to integrate Omnicast globally.

Also important to Starbucks was Omnicast's ability to work with legacy equipment. "One of the nice benefits that we ended up with is that we had the ability to leave our existing cameras and recorders in our stores and integrate those into our platform so we did not have to rip out every product that we had ever installed over the last 12 years but were actually able to integrate our existing product line into our solution," Hon said.

Starbucks currently has a blend of IP and analog systems with about one-third of the roughly 30,000 deployed cameras recorded directly with Genetec products. All of the cameras feed into the Omnicast system.

The system also allows for watermarking the video to ensure authenticity, encryption of video files to limit access, uninterrupted video streaming and real-time system-health monitoring, which has already paid off for Starbucks, Dettloff said.

"Just through system-health monitoring, we have been alerted

"One of the nice benefits that we ended up with is that we had the ability to leave our existing cameras and recorders in our stores and integrate those into our platform so we did not have to rip out every product that we had ever installed over the last 12 years but were actually able to integrate our existing product line into our solution."

- Traegon Hon, Business System Analyst at Starbucks

to sites that were not configured properly and we were able to address those in real time," he explained, adding that the system has also helped Starbucks identify the cause so security could address the issue before it became a recurring problem across hundreds of stores.

Omnicast also gives Starbucks the ability to manage system updates in a reasonable manner because Genetec allows upgrades to be phased in. That means that Starbucks can have stores using multiple versions of the software since they are all compatible with one another.

Also, as new camera technology becomes available, Starbucks will have the option of upgrading to those cameras still using the existing system.

For more information, please visit: www.sm.asisonline.org SST



Tyco Tightens Security at Thrifty King Grocery Stores in Kansas and Colorado

The Thrifty King grocery store chain brought all of its stores onto a common intrusion alarm platform to make it easier for the owner and store managers to monitor and manage the system, either at the store level or remotely.

PowerSeries Neo with PowerG Technology has provided the store with the ability to monitor a facility with more than 30,000 square feet of space and reliably transmit alarm signals, even though every store contained building support pillars, food shelves, refrigerators and freezers located in between the intrusion security panel, keypads and sensors.

Introduction

The family-owned Thrifty King grocery store chain, with two stores in Kansas and a third in Colorado, has relied on its security systems integrator, Alert Alarm Co., for access control, video and intrusion solutions. Bringing all the stores, two of which also operate separate liquor stores, onto a common intrusion alarm platform would

make it easier for the owner and store managers to monitor and manage the system, either at the store level or remotely.

Challenges

For a busy retailer like Thrifty King, it was important to find and install an intrusion system that would cause minimal disruption to buildings themselves and to the day-to-day operations. The company's Hugoton, Kansas, location was a new construction built in early 2015, while the Dodge City and Lamar, Colorado, sites had undergone major remodels within recent years. With a wireless intrusion solution Alert Alarm could more easily customize the system to fit the configuration of each store, such as covering the front doors as well as overhead doors in the loading area, and do so without having to pull wires, which would add to the cost, labor and time involved in the project.

The owners of Thrifty King also wanted the ability to gather information from and actively monitor their



continue on page 86



intrusion system as needed, rather than having to wait to receive calls from an alarm monitoring company or police if there was a problem. It was also important for every store to have the same intrusion alarm system, as store managers are often cross-trained to cover other store locations if needed.

Solution

Working with Alert Alarm, Thrifty King chose Tyco Security Products' DSC PowerSeries Neo, a flexible modular hybrid intrusion alarm platform that captures the reliability of a hardwired system and pairs it with advanced PowerG two-way wireless communication devices to fit the needs. "It was the wireless range that sold them on the project," said Curtis Crawford, security specialist at Alert Alarm. Crawford installed a series of keypads, door sensors and motion detectors at each site, based on the needs of the specific location. The Dodge City store, for instance, was equipped with two keypads, five door sensors and various motion detectors, while the Lamar site needed a single keypad and four door sensors, along with various motion detectors. At the newest site in Hugoton, which was armed with keypads, door and motion sensors, the install also featured the addition of window sensors for the monitoring of the adjacent liquor store.

Even though some of the door sensors were hundreds of feet from the keypad, with building support pillars, food shelves, refrigerators and freezers located in between, no repeaters were needed, although they could be easily added to the system if signal strength became a problem because of changes to layout or other structural features within the building.

The Dodge City location is a prime example of the robust range of the system, with a 30,000 square-foot store and an estimated 300-foot distance between the keypad transmitter at the front of the store and other wireless devices located at the back of the store. Using PowerG-enabled wireless sensors allowed Crawford and store Owner Justin Carter to place them where needed,

such as on the tracks for overhead doors, without the hassle of wiring. Adding sensors, such as the ones being considered to track freezer temperatures, is easy to do within the PowerSeries Neo platform. And the long battery life within the peripherals is also important because it cuts down on calls to Alert Alarm for system maintenance.

With adaptive transmission path capabilities, PowerSeries Neo can adjust as the retail environment changes. For example, if Thrifty King sets up a merchandise display in the front of the store, the system will automatically detect an object is interfering with the transmission path and will transmit a stronger signal from sensors to the panel to compensate for the change. When the store removes the merchandise display, the system will return to normal transmission levels, thereby saving on battery usage. Another part of the solution that was important to Carter and his management team was the integration of PowerSeries Neo with Alarm.com, a remote interactive security management tool.

"PowerSeries Neo is the only reliable panel on the market today that supports multiple partitions," said Crawford. "That was another reason why we went with PowerSeries Neo." The PowerSeries Neo system, in combination with Alarm.com, allows Carter to "manage so many parts and pieces from a distance while providing the peace of mind that everything is set and you can check on it when you want to." Carter has lots of information available to him via the Alarm.com interface and can choose when and if he wants to review it. For instance, he is notified immediately if there is an issue, such as an employee who doesn't set the alarm by the specified time, or if someone is entering the liquor store at a time when it is supposed to be closed.

It just makes you relax," said Carter, "knowing everything is set."

The Future

In the future, Thrifty King can easily add more sensors to the system to monitor and protect certain areas should they have an issue with employee theft or shoplifting. This can include adding sensors to a storage room or an area where expensive merchandise is located, such as a high priced liquor aisle, so that the store manager receives a notification every time a person enters a specific area. PowerSeries Neo also provides Thrifty King with the capability to integrate with people tracking and a foot flow monitoring system at a later time. The system would notify the store manager about high foot traffic areas and if there are too many people congregating in a certain area of the store.

For more information, please visit:
www.tycosecurityproducts.com **ESST**



wolfSSL Secures EiMSIG® Smart Home Alarm System

“Avoiding unauthorised access to the network while using device applications provoked the need for an SSL/TLS security implementation in our smart home product. We chose wolfSSL because of their industry reputation and personalised product introduction from the sales team.” - Oliver Görgl (EiMSIG)

EiMSIG® is a family owned and operated business focused on producing home security products to provide high level burglary protection at a low energy cost. The corporate philosophy ensures that “Every customer is an individual whose trust and respect we must earn by careful work.” The products are not “just another alarm” but are tailored to individual needs of the customer. EiMSIG® smart home alarm system is distributed throughout Europe in Germany, Austria, Switzerland, Netherlands, Belgium, and Luxembourg and mainly purchased by private homeowners.

EiMSIG smart home is the logical development of the classic alarm. The EiMSIG® App (iOS, Android) for smartphones extends the ease of use significantly. EiMSIG smart home has the ability to control lighting, blinds, heating, electrical equipment and integrated webcams. The new touch panel is 100% compatible with all other EiMSIG® components. Instilled with the confidence to protect, EiMSIG® smart home alarm must ensure industry standards.

Key Requirements

With the advancement of the Internet of Things (IoT) the number of network reachable



devices has rapidly increased. Likewise, application development and development frameworks have evolved, creating a significant demand for security solutions. The quick app development model has provided thousands of insecure applications as noted in the ITBusinessEdge article “Why Mobile Apps Are Not Getting More Secure”. The article suggests businesses should consider an added layer of security with network reachable products.

The smart home system is a low energy, cost effective solution for home alarm systems so minimising the energy usage was also important to EiMSIG®. The hardware and software solutions needed to achieve these goals.

Solution

Seeking a solution that would work

easily and efficiently lead to wolfSSL. “The initial contact with the sales team was both informative and valuable.” The implemented solution derived by the engineers and sales team at wolfSSL met the product needs. The wolfSSL library supports the hardware acceleration properties of the Microchip PIC32, the microcontroller used by the EiMSIG® smart home alarm system. The wolfSSL SSL/TLS and crypto libraries are among the smallest footprints available in the market today aligning with EiMSIG’s energy conservation goal. The wolfSSL team actively develops the SSL/TLS library and maintains accurate documentation to make implementations easy and efficient.

Results

Due to the Microchip PIC32 microprocessor hardware acceleration ability, the implementation is in both hardware and software, increasing speed and efficiency. The wolfSSL library supported Microchip making it easy to add the functionality. The EiMSIG® smart home system functions as both an isolated system and a network accessible system. In either case, wolfSSL secures the SSL/TLS data transfer layer from unauthorised access.

For more information, please visit: www.wolfssl.com



Manchester in Memoriam and Moving Forward

We would like to offer our heartfelt condolences to the families who lost their loved ones in the tragedy that took place at the Manchester Arena in Manchester, England on 22 May 2017.

An event as disastrous as this is a distressing but necessary reminder of the importance of implementing effective security measures at public venues. Perhaps the emergence of smart security will offer some viable solutions in order to prevent similar attacks in the future.

In the aftermath of such an event, it is of absolute importance that lessons are learned and preventative measures put in place to prevent unnecessary loss of life.

“We have to harden the outer core. This means expanding security far outside of venues, including invisible anti-drone technology, and highly sensitive “Vapor Wake” dogs, which can smell explosives up to 10 minutes after they have left an area. It’s no longer just the venue, facilities need to start thinking, ‘It’s not just inside my gate and the bowl. It’s the parking lots, it’s the foyers.”

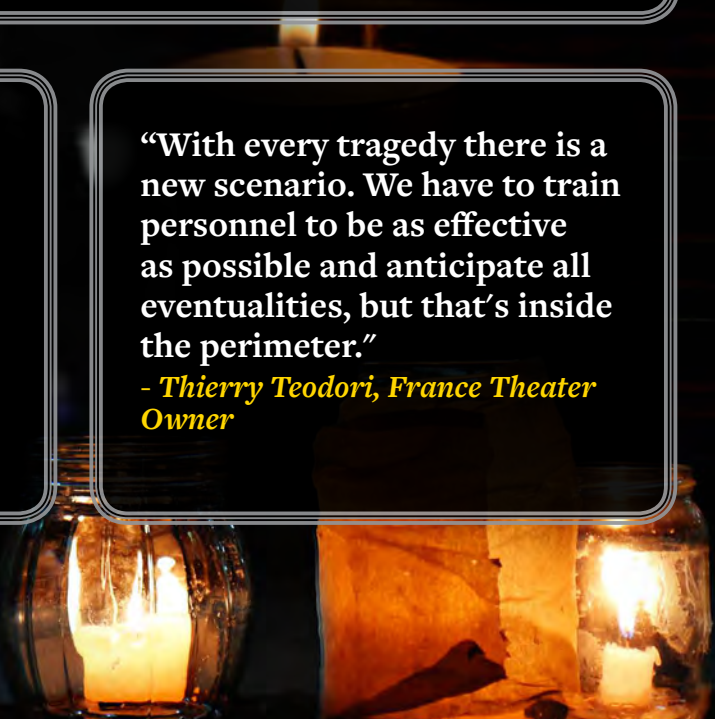
- Chris Robinette, CEO of Prevent Advisors, a security and counterterrorism advisory firm

“More technology, such as closed-circuit television, facial recognition software, chemical sensors, sniffer dogs and license plate surveillance would also be needed.”

- Jeffrey Miller, Senior Vice President at MSA Security in New York

“With every tragedy there is a new scenario. We have to train personnel to be as effective as possible and anticipate all eventualities, but that’s inside the perimeter.”

- Thierry Teodori, France Theater Owner





“We’re constantly looking at vulnerabilities and things we can change, and there is a vulnerability as people are departing from a facility and a large number of facilities already have procedures for controlling open plazas, curbs and exits; for those who don’t have a robust program for that, this incident will be analysed and resources put in place to strengthen protection.”

- *Russ Simons, managing partner at facility-management firm Venue Solutions Group*

“The security services are preoccupied with so many different people that they just don’t have the resources to concentrate properly on those who are actually a threat — they can’t possibly do it all.”

- *Rizwaan Sabir, academic specialising in counter-terrorism*

“It seems it might have been something going off near the exits when the event was finishing, which is when security is slightly weaker, this requires some forward planning and knowledge of the events.”

- *Raffaello Pantucci, Director of International Security Studies at Royal United Services Institute*

“This event showed the importance of focussing security resources as much on when crowds leave events as when they enter. It also points to the need to move out the security perimeter to well beyond the queue of fans waiting to enter, in order to pick up potential signs of danger. This would also help crowds disperse, offering less of a target for bombers. Even though you can hurt or kill people, you wouldn’t kill the same numbers.”

- *Jeffrey Miller, Senior Vice President at MSA Security in New York*

“We need to start reorienting our security and safety procedures, we call it expanding perimeters, to adapt to new threats and we have to reallocate our focus and energy on the perimeters and peripheries of buildings.”

- *Chris Robinette, CEO of Prevent Advisors, a security and counterterrorism advisory firm*



UNIQUE SNAP SURVEILLANCE ANALYTICS INTEGRATION IS A CERTIFIED MILESTONE SOLUTION

Peripheral vision, video pursuit, virtual walkthroughs and consolidated evidence make the most of large surveillance implementations

Copenhagen - Milestone Solution Partner Snap Surveillance has achieved the status of Milestone Certified Solution with its integration to XProtect Corporate IP video management software (VMS).

Snap's unique User Interface (UI) software allows customers to get more effective use from their medium-to-large (100+ camera) networks. It automatically finds relationships between the camera fields of view; both overlap and near overlap. It then presents the camera network to the user in a variety of ways that reduce information overload.

Snap uses straightforward video analytics on individual video streams as a pre-processing step (to determine scene occupancy), then processes the occupancy signals from across the camera network in concert to determine the inter-camera relationships. As such, Snap is what could be called "multi-camera analytics", whereas the vast majority of existing analytics process single cameras in isolation. Snap's patented technology allows this learning approach to scale across thousands of cameras.

Snap's integrated solution provides the user with a highly intuitive video UI allowing seamless tracking of persons-of-interest from camera to camera across widespread locations like an airport or shopping center - for both live and recorded video. Key Snap capabilities include:

Peripheral vision:

The camera that is the current focus of attention is presented with visually related cameras laid out around it, giving the operator visual context to the scene. Video streams are thereby seen in the context of neighboring video with the unique "Peripheral Vision" display - improving the situational awareness





for security personnel.

Video pursuit:

As a target moves out of the current focus camera, they will appear in one of the peripheral cameras. Clicking on that camera switches focus to it, allowing the target to be followed easily throughout the network. The neighboring video streams act as a menu for navigating the network, improving operator ability to follow the action moving around a site without needing to memorize camera names or positions.

Evidence videos:

Just by following the action, users can produce consolidated videos of everything suspects do while on site, providing rapid and compelling support for investigations.

Virtual walkthroughs:

Security staff can browse around an area of interest, moving from camera to camera, without needing to be physically present or to know each camera's location.

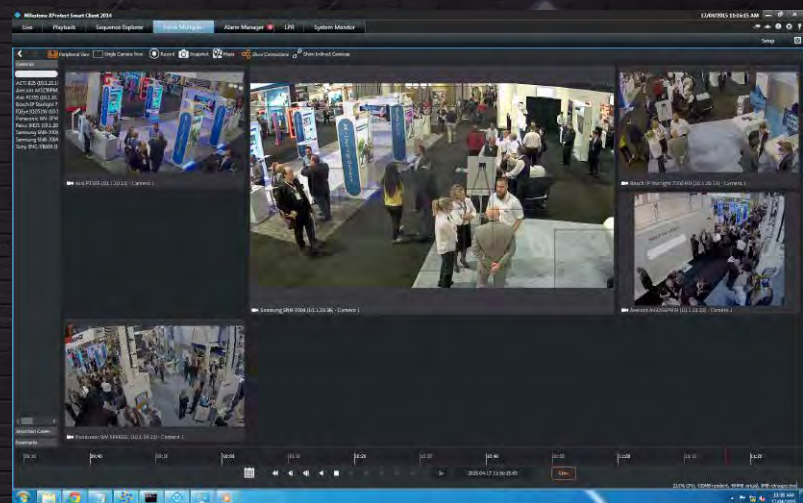
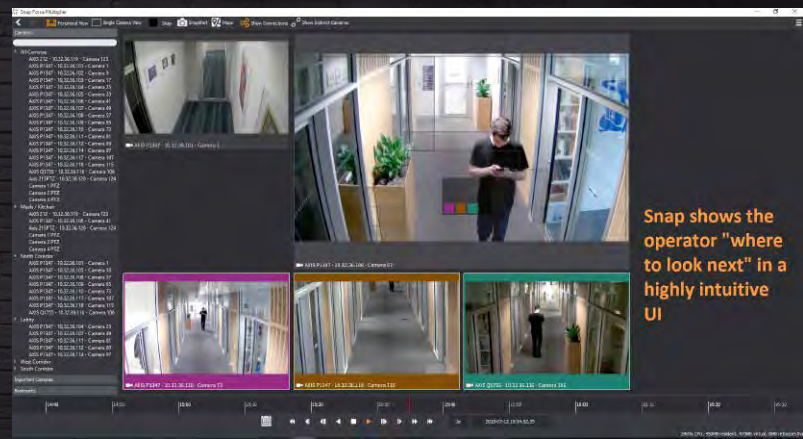
Scalability:

Snap scales to networks of thousands of cameras. The larger or more complex the camera network, the greater the benefit for operators in understanding and navigating through that network with Snap.

Camera-agnostic operation:

Snap's software requires no special camera functionality and interfaces only to the VMS platform – if Milestone supports the camera, then Snap also will.

The Snap back-end middleware is integrated with live or archived video so it can analyze the video to determine the relationships between camera fields of view. Snap's end user functionality is integrated with the Milestone XProtect Smart Client user interface, and for both



the archived and live video signals, to deliver the peripheral vision, video pursuit and other functionality.

Certified for Confidence

Certifying this software integration provides the assurance that the solution functions, operates, performs and easily integrates with Milestone XProtect VMS. It guarantees the interoperability of the certified solution and is a distinguishing feature in the marketplace. A proven, certified solution delivers confidence to those specifying, implementing and operating it.

This distinction indicates that the solution has been certified with the Milestone XProtect Platform (advanced products from 2014 onward). The certification focuses on testing the solution's functionality, performance impact and usability.

"As a relatively new entrant into the global security sector, Snap draws significant value from working with a market leader in Milestone, and being an active partner within the Milestone Open Community. Snap helps deliver a more comprehensive and effective solution for large and often mission-critical security systems, and having our solution certified is an important validation for Milestone integrators and end users of our software - they can be confident in the reliability, stability and performance of the integrated solution," says Simon Langsford, CEO, Snap Surveillance.

For more information, please visit: www.milestonesys.com **SST**



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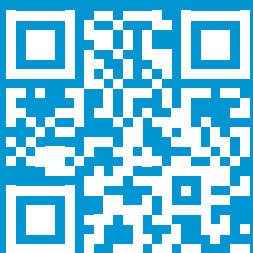
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5 WAYS AUTOMATED KEY CONTROL IMPROVES UPON MANUAL SYSTEMS

Everyone makes mistakes and in many cases, they can be good learning opportunities. However, some mistakes have more far-reaching and even potentially dangerous ramifications than others. In the case of security and its critical mission of protecting people, places and assets, mistakes can lead to losses and potentially cost lives.

In the event of a lost key or mismanaged keys for instance, locks may have to be re-keyed, inventories will have to be taken or audits performed, lost or damaged items replaced and there will have to be a follow up investigation to determine who may have been responsible or who last had the keys. Not only are these disruptive exercises but they can also be quite expensive depending on the number of doors that must be re-fitted and the types of locks required. A policy review may even be initiated to help ensure that keys are better managed and controlled and that measures are put in place so that the situation does not re-occur.

Without question, physical keys still play a vital role in the security process but key management is one of the most overlooked areas within security. Company policies regarding key control and usage are fine in theory but are too often ignored in practice. Keys are passed around and/or duplicated, manual logging is not reliable and so on. When it comes to tracking and controlling access to keys, lessening or even eliminating human error is a primary motivation for an organization to make the decision to move from a manual system to an automated key management system.



▶▶ **By: Fernando Pires,**
*VP of Sales and Marketing at
Morse Watchmans*

If manual key system problems are affecting the safety and security of people and assets within your facility, here are five areas where the implementation of an automated key management system can make a difference.

Key Control

Not knowing if an employee attempts to get possession of a key they are not authorised to use or when a key is returned by an employee other than the one who took it out can quickly become a liability. Key control and management systems are designed to secure keys in a tamper-proof cabinet and access to the cabinets and to individual keys is controlled at all times, with every key accounted for.

Administrators can access, program and monitor the system over a network from anywhere. This convenience allows facility managers to see reports, change users, establish permission levels for each user code, monitor data or configure the systems from virtually any location, all providing added control.

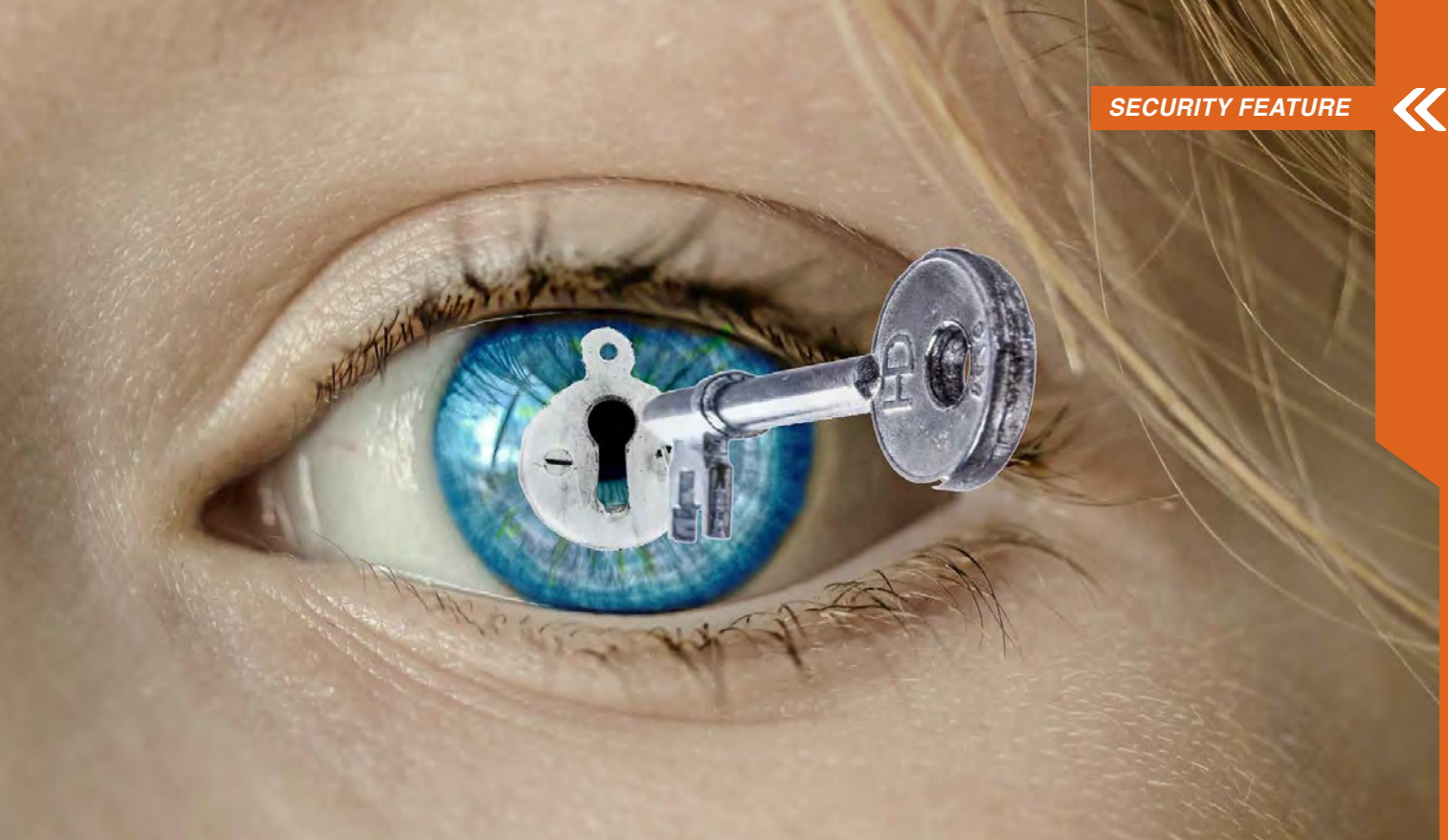
Policies and Procedures

Policies and procedures are established for a reason but they may not always be followed. One of the ways in which organizations can help ensure that employees follow company policy regarding key usage is to make sure that it is easy or convenient to do so. Key management systems with automated tracking relieve the responsibility of an employee having to manually sign out a key or log returns into the book.

Other time-saving features may include the option to return a key to any key cabinet in the system rather than having to return the key to the cabinet from which it was removed. Users can see which keys they have out, if any of their keys are overdue and when their keys will become overdue. Biometric identification, large, easy to read touch screens, voice cues and status bar guides help to ensure a fast and easy procedure when accessing or returning keys to the cabinet.

Company policies regarding key control and usage are fine in theory but are too often ignored in practice.





Improved Security

Hardware and software technologies are not the only measures available to improve security; information often is just as valuable. Key management systems allow keys to be managed according to requirements (i.e. time/day available, personnel, etc.) and management can quickly query what keys have not been returned and when a key will become overdue. If a key is not returned to the key cabinet as scheduled an alert is sent via email or SMS text to appropriate personnel so that immediate action may be taken. Mobile apps let authorised users see a wide range of live information and interact remotely with the system.

In the event of an incident, management can query the system for specific details such as listing all transactions between certain times and when doing a follow up investigation, request a report for the hour preceding the incident or, immediately following an incident such as the discovery of a damaged or missing piece of equipment, a report can be generated showing who last accessed the particular key.

Key Usage Information

In addition to key tracking, the recorded data from a key management system provides a wide range of business intelligence that can be analysed for identifying policy and procedure infractions and/or improvements. Trends that could take weeks or months to detect manually can be seen almost instantly when relevant queries are programmed into the reporting software. This highly specific intelligence allows root causes of problems to be identified rather than symptoms, and enables management to enact countermeasures that will help

prevent new incidents before they occur.

Integrated Systems

Today's advanced key management systems feature open protocols and partner certifications that let them integrate into broader security systems, including identity management, access control, and visitor control. Managed separately, they create unnecessary extra work for staff and leave open the potential for security vulnerabilities. When integrated though, processes can be streamlined and redundancies eliminated across common points. Employees can be entered into the access control system, for example, with their credentials' profile information, access group, etc. instantly transferred to other systems. The system can also pass data about transactions and alarms back to the access control system for greater integration.

To help ensure system integrity and protection from breaches, data can be encrypted with AES-256 technology. Other new features are continually being added to help protect the system from security breaches via the network.

Finally, all of these improvements made possible by implementing a key control and asset management system in place of a manual system can help to keep operational costs down – there are no lost keys to be replaced; easy use encourages adherence to organizational policies and procedures; control of keys makes facilities less vulnerable to break-ins and theft; analysed data can point out weaknesses; and improved operational efficiencies in an integrated system save time and money. Key management systems are a good choice for all of these reasons and more. **SST**



Moving From Traditional Guards **to** Automated Security Kiosks





►► *By: James Tan, Executive Director and CEO, AETOS Holdings Pte Ltd*

Automation technology promises to make security more personal and purposeful and the latest innovation from AETOS is a sign of things to come.

A concierge, security guard or customer service staff? The Automated Security Terminal plays all three roles. With calls for tougher security being made, automation could be the key to greater efficiency.

Times are changing. With a rising number of crimes and terrorist attacks being reported around the globe, businesses and individuals are more vulnerable than before. The growing awareness of such threats has also cast the spotlight on security.

In Singapore, the government recently announced proposed amendments to the Public Order Act, making it mandatory for security measures to be implemented for events with more than 5000 people. A new Infrastructure Protection Act is also being introduced, requiring selected buildings to ensure sufficient protection.

Although this call for safety has opened up business opportunities for the security industry, perennial problems such as manpower scarcity has put solution providers on the back foot. Singapore currently faces a shortage of almost 10,000 security guards, as many shun this job due to its long working hours.

With this challenge likely to persist, it is imperative that security providers look to automation to reduce the workload and dependency on human personnel as well as improve efficiency.

Augmenting Traditional Security with Automation

There is a growing realisation that relying only on people for security is no longer effective due to the possibility of human error. Even the best security personnel can make mistakes, which can be extremely costly.

Thus, it has become critical for security providers to no longer depend on only physical security, but to also complement it with automation to address security concerns.

After all, there are certain instances when these technologies can perform better than humans. For instance, machines or robots offer a set of eyes that will never tire, while being constantly responsive to important information.



“...with an automated system there will be no such doubt, as it will be programmed to monitor protocol violations.”

There is also an outside chance that human personnel might not always be compliant with various security regulations. However, with an automated system there will be no such doubt, as it will be programmed to monitor protocol violations.

Although the initial capital cost of installing technology might be high, the subsequent costs will almost be 50 per cent lower than round-the-clock security guards.

With automated technologies being more cost-effective, responsive and secure, it comes as no surprise that they are now being widely considered as practical successors to outdated security measures.

Innovating for More Efficient Security

Although there are myriad security technologies in the market such as facial recognition, biometrics and iris tests, they alone cannot offer value. This is where innovation comes into play – one will have to find ways to blend these different technologies together in order to come up with a useful security product.

For instance, many buildings want to fend off illegal trespassers. However, the role of many of the guards today has been reduced to that of a mere concierge.

This is where an automated visitor management system can help guards work better. Using integrated technology, it can simultaneously



fulfil the functions of a concierge, security guard and customer service officer. A 24/7 automated system executed effectively by security personnel can indeed safeguard the building and quickly process visitors in a cost-effective manner.

A case in point is AETOS' new Automated Security Terminal (AST), an interactive self-service kiosk that also functions as a concierge, security guard and customer service personnel.

AST aims to reduce the workload of human personnel by replacing the work of three guards. It supports security electronically by accurately capturing visitors' pictures and authenticating their identity before generating a one-time access pass. By digitally recording the visitor's entry and exit times, the AST also provides an audit trail that is easy to access.

Such visitor management systems can go beyond fulfilling the fundamental job requirements of a security and customer service personnel. It can also offer advanced features such as traffic analytics, generating an accurate and detailed report on who has entered and exited the premises.

Completed two months ago, the AST is currently in the demonstration phase. Instead of being offered as a product, it will be offered as a service: monthly payments will be made by users, with a minimum two-year contract period.

Automation Is Here to Stay

As both residential and commercial complexes adopt smart infrastructure, the prominence of electronic security solutions will only increase. In the future, buildings will depend less on



manpower, and more on user-friendly automated services to purposefully manage their security.

However, one must note that with new technologies rapidly emerging, it would be nearly impossible for any existing security product to be future-proof. For instance, we foresee AST's lifespan to be three years, after which it will need to be upgraded with the latest technology to offer a better service.

Therefore, it is vital for the security industry to continuously look out for new technologies to improve their products.

AETOS is doing just that with its ring-fencing security solution, which uses a camera system to protect the perimeter of its client's premises. The camera uses the latest video analytics software to create a detection zone outside the fence.

The moment someone enters this zone, motion will be detected and the intruder will be tracked as a person of interest. The command centre will then be intimated immediately to deploy security personnel.

However, we observed that we could still lose sight of the intruder if he quickly jumps over the fence and goes out of the camera's range. To address this possibility, we are working on improving this solution by developing a drone that can follow his whereabouts.

Automated technologies are indeed playing a key role in helping solution providers proactively address security loopholes. With advanced threats on the rise, security firms will have to constantly innovate to be at the top of their game. Only then can we live in a safer world.

For more information, please visit: www.aetos.com.sg SST

Although there are myriad security technologies in the market such as facial recognition, biometrics and iris tests, they alone cannot offer value. This is where innovation comes into play – one will have to find ways to blend these different technologies together in order to come up with a useful security product.





“Green” is the New Color of Choice in Security as Suppliers and Users See the Value of Sustainability



►► *By Andrea Sorri, Director, Business Development Government, City Surveillance and Critical Infrastructures at Axis Communications*

Best practices in environmental consciousness have taken on an increasingly important part of how businesses transform operations and people change their habits on a daily basis. From macro issues like global warming to simply turning off an unused light, issues related to sustaining resources, improving quality of life and protecting our planet touch just about every aspect of our lives.

What role does the security and surveillance industry play in this growing focus on going green? In general, there are two levels of sustainability touching the security industry. The first is how end users of cameras, analytics and other surveillance systems that are typically used for security purposes are now applying them to enhance sustainability at work and in our communities. The second is how the makers of this equipment are adapting their own practices for how they design and manufacture their products to be more earth-friendly.

Efficient Traffic Management Can Reduce Air Pollution

One area where surveillance systems can help sustainability is road traffic management. As city authorities seek the best way to manage the traffic flow in and around the city, especially during rush hour, it is crucial that they have a thorough understanding of the current traffic situation. This includes real-time information about traffic jams or slow moving traffic, driving conditions and visibility, deviations, accidents and other incidents, and roadworks.



IP cameras can help provide this type of real-time information and allow authorities to remotely monitor known traffic hot spots for any issues. Based on an understanding of the traffic situation and the real-time video stream, authorities can manage traffic lights to improve queues, give priority to public buses where needed and advise drivers on current bottlenecks as well as the best and fastest routes to their destination. Improving the flow of traffic has been proven to not only alleviate congestion and reducing stop-and-go traffic, but by doing this it can also lower pollutant emissions.

When monitoring air quality, network cameras can contribute to a better understanding of how factors including traffic, industry and the weather influence air pollution day to day. A combination of low-cost pollution detectors installed across the city, GPS technology and mobile receivers allow authorities to record and send real-time information on gases, particles and wind directions in order to quantify the various pollution sources. By linking recorded data from weather stations, traffic sensors and video streams with these air quality measurements, municipalities can start to understand the correlation of known pollution sources such as road traffic with air quality. This allows them to tackle poor air quality and improve the daily environmental health of a city and its citizens.

Making Alternative Transport Safer

Many cities already have initiatives for reducing traffic on the roads and are encouraging citizens to use more environmentally friendly means of transport. As part of this, improving the safety of pedestrians and cyclists is important and cameras can help with this, too. While such technologies are still in their very early stages, cameras could in the future be used to detect more vulnerable road users and trigger automated warnings in potentially dangerous situations. Using warning lights to increase brightness on the street, playing recorded messages or implementing a physical barrier would be simple but effective ways to inform drivers that pedestrians or cyclists are about to cross the street,

especially in low visibility conditions.

Data collected by cameras is also crucial when it comes to planning investments in cycling infrastructure, and monitoring bike lanes and stations to keep maintenance and service levels high.

New Guidance System For Bicycle Parking In Holland

One great example of this is being implemented by the City of Utrecht in the Netherlands. City officials wanted a digital guidance system for bicycle parking to help cyclists find empty parking spaces for bikes in the numerous parking facilities. They also wanted to improve tracking of abandoned bicycles and increase its bicycle parking capacity.

A smart camera system was installed inside the bicycle parking facilities. The solution detects empty spaces in the bike racks. Network cameras were installed on the ceiling and work like human eyes by scanning for free spaces several times a minute. The system also “sees” if there is enough room to park a bike in a particular slot.

The digital parking guidance system ensures that the available parking spaces for bikes in the designated areas are utilised better. The system also provides the city government in Utrecht with management information so the city can respond quickly when parking stations are filled to capacity by providing portable bike racks.

Traffic planning in Italy

Meanwhile, in Municipality of Prato in Italy, officials are improving traffic planning and optimization with video surveillance.

Traffic monitoring is a very important issue for Prato Municipality, since providing statistics on the number, type and speed of vehicles in transit enables planners to correctly scale new infrastructure projects and adequately estimate the dimensions of the roads that can have the most effect in terms of improving traffic flows.

When monitoring air quality, network cameras can contribute to a better understanding of how factors including traffic, industry and the weather influence air pollution day to day.



The installed system, featuring cameras positioned at strategic entry and exit points to the city, helps the Municipality to monitor traffic flows and collect a large amount of real-time data and statistics. Benefits of the system include the following: vehicles can be rerouted and congestion reduced; emergency services can rapidly identify the best and fastest route to their destination; radio stations can provide detailed information to listeners and users can access live footage on the Internet and make itinerary decisions based on real-time data.

Energy-Saving Lighting

Companies and municipalities alike are looking for intelligent energy management solutions to save costs, and centralise system maintenance. Smart cities are also looking to improve their citizens' experience, for example, by adapting street lighting to the context, the weather and the situation. Technology can help solve the problem of out-of-order lamps, or changing lighting brightness during peak times or special events (e.g. in city parks this need is increasingly felt by many runners, especially women, training on their own after sundown).

Combining LED street lights with control systems allows public safety personnel to change lighting not only according to weather conditions (for example, in case of fog, rain or snow) but also – and even more importantly – in order to protect citizens and improve their safety, warning them where accidents have just occurred or about the passage of vehicles and pedestrians - thanks to intelligent motion sensors. From their perspective, citizens can report a malfunctioning through an app putting them in direct contact with the municipality.

Efficient lighting management can bring a lot of advantages to municipalities. Controlling and monitoring the system remotely, city officials can save energy and significantly reduce maintenance costs while increasing people's security.

The Security Solution Provider's Role in Sustainability

As important as it is for end users to leverage security

systems for supporting sustainable practices, the suppliers themselves need to be aware of the impact their own businesses can have on the environment. At Axis, for example, we have focused programs that are supported by top management which are aimed at minimising our direct and indirect impact on the environment. All of our product development and operational plans have as their goal to offer sustainable network video products and solutions.



As part of Axis' environmental focus, the company reviews choices of product materials, and continually implements more environmentally friendly and recyclable alternatives. For example, Axis' product packaging contains mostly recycled materials. Currently, about 95 percent of the materials in Axis' products are recyclable or can be incinerated, according to Swedish recycling standards. Axis also continues to optimise product packaging in order to reduce shipping volumes and lower carbon emissions from product transports. Packaging for a recently introduced camera has been reduced by 48 percent compared to the previous packaging design.

In addition, we use life cycle analyses that look at the environmental impact of existing and new products throughout the entire value chain. We have a Green Product Design group comprised of environmental, product development, and design engineers. The group develops and implements tools for integrating environmental considerations with product development.

The carefully conducted product life cycle analysis will in the future form the basis for a scorecard with guidelines that help product developers and designers make more sustainable decisions. For example, Axis is actively phasing out the use of polyvinyl chloride plastics (PVC) in its products. PVC is harmful to both the environment and human health, since it is not broken down in nature, is carcinogenic, and releases toxic substances during its lifetime. Axis has made a lot of in phasing out PVCs, with a number of newer cameras being completely PVC-free.



Remote access cameras minimise the number of emergency call-outs caused by false alarms, and reduce the number of maintenance visits by about 50 percent.

Life cycle analyses show that the largest environmental impact of products such as cameras and monitoring systems is associated with energy consumption in the end-use phase. Sixty to 80 percent of a camera's environmental impact comes from the energy consumption by the end customer, so even a marginal improvement in energy efficiency will have a large positive effect.

Because generating electricity for lighting is the largest source of carbon emissions associated with video surveillance, using more efficient cameras minimises environmental impact in the end-use phase. Such approaches also lower operating costs.

From a sustainability perspective, remote access is a great advantage with security products. Remote access cameras enable users to investigate incidents and handle maintenance from a distance, so using this technology leads to direct savings in terms of transportation and personnel costs and indirectly minimises environmental impact. Remote access cameras minimise the number of emergency call-outs caused by false alarms, and reduce

the number of maintenance visits by about 50 percent.

Environmental impact must be considered right until the product's end of life. In terms of best practices, in the final stage, the camera is dismantled and broken down. Components that contain hazardous material are separated manually. Larger components such as circuit boards are removed, printed circuit boards are melted down and metals such as gold are recycled. Aluminium, zinc, copper, steel and stainless steel are melted down in order to be reused as raw material. Plastics are recycled in order to be reused in plastic products or to generate energy.

At Axis, our products are covered by the EU's WEEE Directive (Waste Electrical and Electronic Equipment), which means that the electronics manufacturer/importer has responsibility for ensuring that the product residues can be utilised separately. The supplier is responsible for marking the products in order to ensure that they are not thrown away, but instead go to special waste sorting.

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



Protecting Cultural And Hospitality Venues From

Terrorist Attacks



Andy Davis is the Managing Director of Trident Manor Limited an international security, risk and crisis management consultancy. Prior to establishing Trident Manor Andy was a diplomat, specialising in protecting governmental assets from criminal, terrorist and espionage threats. For over 15 years Andy has been involved in reviewing cultural and hospitality venues for clients and working with parties to manage and mitigate the risks and vulnerabilities that exist. Andy is a regular speaker at international conferences and frequently contributes to professional publications that help manage and reduce risks



Over the past 40 years there have been numerous attacks carried out against cultural and hospitality venues in the furtherance of religious, ideological, criminal or political beliefs. By default, cultural and hospitality venues are attractive targets for terrorists due to their public accessibility, the volumes of visitors and guests or because of what the venue represents; in short because they are 'soft targets'.

Examples of such attacks include the destruction of the Buddha's of Bamiyan in Afghanistan by Mullah Omar, the 2015 attack on the Bardo museum in Tunis, the coordinated attacks in Mumbai through to the recent attack on a Berlin Christmas market where an articulated lorry was used as a weapon.

So how can we protect these venues from terrorist attacks without making them a fortress or detracting from their main functionality?

Understanding Terrorist Threats

When implementing protective strategies, the first thing I need to understand is what threats exist and what risks they pose to the organisation or individual being protected. In this case the threat source is terrorism. What is terrorism? There are many different definitions of terrorism but the one that I have used for over 30 years is: "The unlawful use, or threat of violence to achieve political or ideological aims." This differs from organised crime which may use terror but is concerned with financial reward and gain. I define a terrorist as "Somebody who knowingly takes part in, supports or assists an act of terrorism."

The next stage is understanding the ways in which the threats can impact the organisation and the risks that exist from known, or anticipated attack methodologies. Whilst the threat from traditional attack methods continue; car bombs, grenades, firearms etc., these are by no means the only threats that should be considered. The 9/11 attacks used aeroplanes, a boat was used against the US Cole and in 2016 a lorry was used to devastating effect to kill 86 and physically injure over 400 civilians during the Bastille Day celebrations in Nice, France.

When implementing protective strategies, the first thing I need to understand is what threats exist and what risks they pose to the organisation.



Introducing Protective Security Measures

Once understood, the risks and vulnerabilities that exist for each attack method can be assessed and categorised. This allows protective security measures to be introduced that reduce the likelihood or impact of any attack that takes place. For ease, I categorise the protective security measures in one of four ways:

- Physical measures
- Operational (procedural) measures
- Technical measures
- Educational measures

These measures should be overarching and work collaboratively with each other to create defence in depth and increasing resilience and robustness. The idea being to provide a means of protecting assets and deterring, detecting and delaying attackers, whilst increasing response capabilities.



Museums, hotels, bars and restaurants are places where people go to for relaxation and pleasure. Therefore, the implementation of security measures must be carefully considered so that the organisation is still able to function without destroying or negatively impacting the customer experience. Understanding an organisation's risk appetite and tolerance levels are almost as important as the security measures that are introduced to protect them.

Physical Security Options

Physical security measures include barriers, fences, secure doors and windows. They can also include security personnel and the creation of stand-off and vehicle mitigation measures. CPTED methodologies and design practices are a great means of preventing certain attack types and creating better response capabilities. In some countries, security personnel can be armed, but not in all. During the 2017 New Year celebration attack at the Reina nightclub in Istanbul an armed police officer and 35,000 on duty police could not prevent the attack that resulted in 39 deaths.

Although technical security measures may not deter or really delay terrorist attacks (unless used as part of a physical security measure) CCTV, search equipment and access control systems do provide an ability to

identify pre-attack activity including surveillance and penetrative testing.

Security Education for Staff

An organisation's operational practices and procedures are a great protective security resource. Levels of alertness, introduction of surveillance detection programmes involvement of all staff in the security programme, correct search procedures and robust access control to reduce the target attractiveness of the venue. Security education is often either forgotten or not considered by many as a fundamental security measure.

Security education allows staff to understand the security measures that exist, why they exist, the actions they are to take and the part that they can play in protecting themselves, visitors and venues from attack. Security education can enable 100 people to be involved in a surveillance detection programme instead of just the security team and help staff understand suspicious activities and reporting practices. Security education helps deliver and maximise the effectiveness of each of the other security measures that are introduced.

Proactive Planning

An organisation has to be realistic in its approach to protection from acts of terrorism. The likelihood of preventing a terrorist attack is low, fact. Unless intelligence was available or surveillance detected the first a venue would know about it would be the attack itself. However, there is still an ability to make a significant impact in protecting visitors, staff, physical assets and reputation. These include:

- Proactive immediate response planning
- Establishing a recovery plan
- Providing welfare and medical support to victims.

I still find organisations and venues that do not have emergency or crisis management plans that are specific and fit for purpose. Not only is it critical that a plan exists but also that senior management know and understand the actions that they need to take. Plans should be exercised so that the operational, tactical and strategic elements are being tested and where vulnerabilities are identified steps are taken to reduce or mitigate them.



Security education can enable 100 people to be involved in a surveillance detection programme instead of just the security team.

Recovery planning is a vital part of your crisis management practices. Is there a fall-back location, can there be partial opening, what systems are operable and will they function off-site? The sooner an organisation or venue can normalise operations the speedier the recovery will be. The longer it takes to recover, the increased risks to an organisation's operations, finance and reputation.

Welfare and medical support is not just about those directly impacted by the terrorist attack it also includes the indirect victims; first responders, crisis and emergency management teams, families of direct and indirect victims. Consider counselling, establishing outreach programmes, town hall meetings and lessons learnt. Consider the welfare benefits of senior management visiting the scene, speaking with victims and being there to reopen the venue. Often it is not the physical effects that impact an organisation but the psychological effects and trauma suffered, often over many months or years by staff.

Creating A Security Culture

To conclude, the chances that your organisation or

venue will become the victim of a terrorist attack are very slim and will normally depend on two factors; what you are doing and where you are doing it. It has to be remembered that governments spend billions of dollars on counter terrorist programmes but they are not able to thwart all attacks; neither can you.

Implementing sensible, risk based security measures means that resources are not being wasted unnecessarily. Including as many members of staff as possible in educational and detection programmes helps create a 'security culture' that everybody buys into.

"Failure to plan, is planning to fail!" Is a saying that has stuck with me since the early 1980's. Whilst you may not be able to prevent terrorist attacks, by ensuring your venue has appropriate plans to respond in a proactive manner the greater the opportunity to reduce the risks and resuming activities in a timely manner.

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HOW SMART HOME DEVICES CAN UNDERMINE OVERALL HOME SECURITY

▶▶ *By Udochi Nwobodo*



A 2016 study commissioned by August Home and Xfinity Home projects that 30 million U.S. households will add smart home technologies over the next 12 months. IHS Markit (a consumer intelligence firm) expects the smart home market to grow to 477 million devices by 2020. Recent trade shows like the annual Consumer Electronics Show have built up hype based on consumer enthusiasm for IoT devices. The cool factor associated with these devices has led to their increased adoption. However, the lack of standardisation and the relative nascence of the Internet of Things (IoT) industry have led to these devices being purchased indiscriminately. There is a paucity of research on how these devices interact and how best to securely and optimally integrate them, which has led to uninformed purchasing decisions primarily based on hype. An example of this behavior can be seen, for example, in a family that purchases an Amazon Echo (which interconnects smart home systems and enables the user to control them by giving voice instructions to the



virtual assistant) for Christmas and later acquires an Insteon Hub for home automation (which connects the user to their smart home devices from anywhere in the world using a mobile device).

The problem with assembling IoT devices disjointedly is that, while each device may be secure on its own, together they may create significant vulnerabilities. In a personal interview with Brian Johnson, a cybersecurity analyst at the MITRE Corporation, he detailed an experiment that was conducted on behalf the National Cybersecurity Center of Excellence. The experiment involved an Insteon Hub, an Insteon On/Off Module, and a wireless door lock. The wireless door lock was secure, as its key used a rolling code that protected it against replay attacks. The vulnerability of the entire system was associated with the radio frequency (RF) signal

that the Insteon Hub used to communicate with the wireless lock. When the smart home app is used to open the door lock, the smart home hub would send an RF signal to the door. The experiment discovered that the RF signal could be captured and replayed using a hackRF to open the door, thus compromising the security of the entire system. This experiment highlights how the interconnectivity of IoT systems may be exploited.

The projected exponential growth of IoT devices implies a massive occurrence of software complexity and ubiquity. With the introduction of multiple IoT devices having diverse interfaces and functions over the coming years, IoT software complexity is sure to increase and expand the surface area for an attack. This proliferation will also pose unique challenges in designating responsibilities for various parts of the burgeoning IoT system. According to McKinsey &

The problem with assembling IoT devices disjointedly is that, while each device may be secure on its own, together they may create significant vulnerabilities.



Company, some 30 billion objects could be connected to the IoT by 2020. Considering this in light of the rapidly expanding global economic space, IoT will grow beyond the point where it can be suitably managed. Issues of responsibility and accountability for security and maintenance are bound to arise. A major feature of current IoT implementation that exacerbates this problem is the lack of standardization in the IoT industry.

The present-day IoT has been described as the “network of networks.” Devices have disparate, multiple control systems and networks like Z-Wave and ZigBee to control various features like HVAC (heating, venting, and air conditioning), telephone services, home security, and more. IoT standards are particularly lacking in the areas of security, privacy, communication, and architecture. Several IoT consortiums and developers have sprung up to institute interorganizational IoT standardisation. The inability to communicate across devices and platforms creates a need for various connections to gain access into the IoT network to facilitate the operation of the IoT system. This creates a vulnerability, as the agents behind various connections cannot always be verified. These vulnerabilities can be exploited to perform attacks that can degrade the safety and comfort of our homes. An area where this lack of standardisation affects homeowners greatly relates to insurance. Let’s say an electric fire occurs in an insured home, leading to loss of lives and property. Suppose investigations by the insurance company conclude that the fire was perpetrated using the IoT enablement in the HVAC system, through which an attacker

hacked into the system and overrode critical security controls. Depending on the nature of the insurance agreement, this could jeopardise a successful insurance pay out due to issues of liability.

Who is responsible in this scenario? The insurance company? The vendor? The homeowner? Can it be written off as an unexpected disaster? These are some of the issues that homeowners must carefully consider in conjunction with insurance companies so as not to compromise vital disaster recovery arrangements.

Given the concerns discussed above, consumers will have to weigh considerations with IoT. However, given the trend of technology adoption in the digital age and the significant productivity gains it offers, consumers are more likely to adopt than reject IoT. The onus therefore lies in developing secure procedures and practices for the adoption of smart technologies. These include:

- Adopting IoT technologies based on a risk-based approach: Current IoT devices are relatively insecure, including those from recognized brands like Amazon (Echo) and Google (Nest). The consumer needs to identify and assess the risks associated with various home devices based on their functions and the data collected. Smart home devices should only be used for applications where the risk of compromise is tolerable.
- Using IoT devices responsibly: By practicing general safety practices like using secure passwords and storage, regularly patching devices, and keeping physical protection updated, consumers can greatly

improve the security postures of their IoT systems. These seemingly insignificant steps go a long way in ensuring security: attackers go for the method of easiest penetration, and instituting these safe practices can help protect against such attacks.

- Pushing for industry regulation and standardisation: Consumer groups need to put pressure on government and relevant authorities to institute common secure standards for IoT devices to ensure safer use. The openness and common understanding that results from such a standard will go a long way to supporting successful IoT security research. Public regulation can ensure that manufacturers have greater economic incentives to adopt more transparent standards and produce more secure devices.

The importance of IoT to the home and other sectors like health care, agriculture and finance cannot be over emphasized. However, caution must be applied in its adoption to secure IoT gains from adverse cyberattacks. A secure approach to the development and implementation of IoT will encourage more global adoption, thus designating it as a tool for effecting far-reaching positive change.

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PREDICTIONS FOR 2017

in Video Surveillance

By **Wayne Arvidson**, Vice President, Intelligence, Surveillance, Security Solutions at Quantum Corporation



In 2017 we see video surveillance continuing its growth trend for security, as well as for retail and traffic management applications, and in support of the wider IoT trend. Industry analyst IHS projects that in 2017 video surveillance will capture nearly 6000 Petabytes of data, and by 2019 3.3 trillion hours of surveillance video will be captured daily*. Video is also being retained longer for many reasons, including for use as evidence by law enforcement, or to use with advanced analytics in retail environments. Based on our interactions with customers and partners, we anticipate a number of key developments.

**Source: IHS "World Market for Enterprise & IP Storage for Video Surveillance 2014".*

More Video Data to Support Video Analytics

Organisations will need to become more adept at leveraging unstructured data to identify patterns and trends. Surveillance data or, more accurately, "video-based data", will be increasingly used for business purposes. No longer just for keeping people and property safe; video surveillance will yield greater financial returns. Highly sophisticated video analytics applications will see greater adoption to make better business decisions. Today, 50% of analytics are for non-security purposes. To support these analytical functions, video must be retained for longer periods.

Surveillance Cameras with Intelligence Embedded

2016 saw a surge in camera counts - especially HD cameras yielding considerably more data to manage. In 2017 we expect the adoption of cameras with wider panoramas, higher resolutions, and more sensors will accelerate. Watch for more installations to transition from analog and SD cameras, with a demand that more surveillance capabilities - compression, streaming, storage, and analytics - be bundled into cameras for greater value. The influx of data will strain storage and

make an intelligent, multi-tier storage strategy more vital than before. With improved intelligence in cameras, storage management software to effectively manage the influx of data will become even more important.

Healthcare Heats up for Surveillance

The Affordable Healthcare Act and federal security in the United States mandates coupled with hospital organisations most common challenges—workplace violence, drug related crimes, gang violence, infant/child abduction threats, natural disasters, terrorism, and more—will require healthcare organizations to make significant surveillance upgrades or complete system over-hauls. 80% of hospitals are in need of an upgrade of access control systems and CCTV (IAHSS). For example, to protect against litigation in slip/fall lawsuits, it is recommended that healthcare facilities retain video data for at least two years. In addition, controlled observation rooms may soon exceed the number of security cameras, extending the ability of nursing staff to monitor patients and improve overall care. A modern video surveillance solution will be needed to improve overall facility safety and security while also increasing operational efficiency.

A Surge in Biometric Applications

Today facial recognition is used to identify criminal suspects. Healthcare organisations will increasingly add facial recognition to their security arsenal. We anticipate greater adoption of applications for counting people to help transportation organisations reduce congestion and improve services. Increasingly, biometrics is helping to prevent the major data breaches that have become



common. Public and private entities will embrace more sophisticated cyber security. The Cyber Security Alliance in conjunction with The White House launched an initiative advising the use of fingerprints and one time codes as a way of authentication. Facial recognition is another growth area, where biometric technology is now available for use with body-worn cameras. Both technologies hold great potential, and will require intelligent multi-tiered storage to keep the costs of the required data in check.

IoT Sensor and Video Management

Watch the Internet of Things emerge as one of the top culprits for data growth. The real challenge for IT managers will be to merge this data with large and diverse files types such as video surveillance to enable collective business intelligence.

This will create a data management challenge for state and municipal IT departments tasked with creating the infrastructure to house, protect and analyse both massive video data sets and millions of IoT sensor files.

Add to this the growing list of benefits made possible by the correlation of video data with input from “smart” devices and the demand for storage and storage integration explodes. Embedded sensor technology will allow cities to become smarter, and data from that sensor input will be integrated with video data and analysed to help make urban communities more attractive. Look for vehicle and pedestrian traffic to be more aggressively captured and integrated with sensor input from trains, buses, and subways to cut congestion. Parking facilities

can be monitored and the video combined with input from smart meters to reduce bottlenecks and to improve consumer satisfaction

Video Surveillance-as-a-Service Emerges

As we see smarter cameras and more types of sensors integrated into them, there’s been a movement toward more in-band analytics. This confluence of factors is laying the foundation for surveillance-as-a-service. Smaller deployments will be aggregated into this service model. For example, commercial campuses can centralise surveillance services if they use smart cameras with in-band analytics and other sensors, in order to automate functions that took multiple personnel and enable a more proactive

approach to surveillance, and bridge the gap between a prosecution model to a more preventative system.

About Quantum

Quantum is a leading expert in scale-out tiered storage, archive and data protection. The company’s data management platform and tiered storage approach provide a unique combination of high performance, low-cost capacity and easy access that enables security and law enforcement professionals to address the challenges created by more cameras, higher resolutions, and increasingly sophisticated analytics.

For more information, please visit: www.quantum.com



“Surveillance data or, more accurately, “video-based data”, will be increasingly used for business purposes. No longer just for keeping people and property safe; video surveillance will yield greater financial returns.”



AN INTERVIEW WITH

MICHAEL SENTONAS,

VP FOR TECHNOLOGY STRATEGY AT CROWDSTRIKE

What was the driving force behind CrowdStrike's decision to expand into the APAC market? What were some of the conditions in the security market that influenced the expansion?

We already had a strong customer base here in APAC, but this has been expanding significantly along with some impressive revenue growth on the back of customer demand. Following the opening of our new APAC office in June, CrowdStrike has continued its momentum in the market, experiencing 675 per cent new business growth.

The key to this success is businesses across APAC being ready to embrace next-generation security solutions because traditional security solutions keep letting them down. Every week we are working with organisations that have suffered bad ransomware outbreaks, or breaches that went undetected by their current security technology, causing them to look for incident response assistance and to re-evaluate their current cyber security protection.

As the Vice President of Tech Strategy, please tell us more about your role in CrowdStrike's expansion into the APAC market. How have your prior experiences in the industry as well as knowledge of the region's needs contributed in the penetration of the APAC market?

I have been working in cyber security for over 20 years, with over 10 in an Asia Pacific or in a worldwide role so living and working from Asia Pacific is very familiar territory for me. Prior to my role with CrowdStrike I worked across similar posts in the areas of technology



and strategy development so I have worked very closely with governments and large organisations in the region looking to understand their challenges and then develop security strategies, architectures and technologies that can address these challenges.

A big factor in my decision to join CrowdStrike was seeing organisations every week get compromised with little available to help them. This contrasts significantly with feedback I was receiving from CrowdStrike's customers who were, at the time, showing me how they were dealing with emerging threats and the benefits that CrowdStrike was providing them.

Our initial focus in APAC was to establish and put in place the necessary infrastructure to support existing customers and the planned growth of the APAC business. My experience in this area ultimately has shown me how dynamic and challenging this industry can be, so for me, the most exciting thing about our APAC expansion has been to continue driving innovation, adapting to the technology challenges facing our customers and importantly to help bring CrowdStrike to new markets and organisations throughout the region.

What are some of the more dire challenges that exist in the APAC market in terms of Cybersecurity and how can CrowdStrike assist businesses in resolving these issues?

The cyber security landscape across Asia Pacific has a diverse range of challenges. Geopolitically APAC presents some unique and very active nation state actors that target public and private organisations



globally. Recent research suggests that 60 per cent of organisations in Asia experience breaches once a month and in Australia, the Australian Cyber Security Centre published survey results that indicated 90 per cent of Australian companies have suffered a security compromise.

One of the prominent challenges for the APAC (and global) region are the current security approaches that are being used: what the industry refers to as “legacy” security solutions are increasingly failing businesses. It is no longer enough to put up a wall around your business and upgrade legacy solutions that have failed time and time again to the new versions, hoping for the best. Attackers continue to find ways to bypass these solutions using new malware techniques or more recently they look to use alternative, more evasive methods to go undetected for longer periods of time. This is where traditional signature based technology fails end-users and why more and more customers are looking to replace their current legacy solutions with more effective and forward-looking technologies.

It is interesting to note that in addition to the advancing threat landscape, we are actually seeing increased spending and investment in security tools and solutions in the region, but despite this, there is a simultaneous increase in the number of organisations being compromised. One major challenge that is plaguing every organisation is complexity. Cybersecurity is not easy. Defending against very well funded and experienced adversaries is challenging — simply put, cybersecurity complexity needs to be significantly reduced to make solutions easier to use and ultimately more effective.

Please share with us your strategy in strengthening CrowdStrike’s presence in the Asian market?

CrowdStrike is working with leading Asian governments and enterprises to deliver its endpoint protection platform, intelligence and service offerings. Importantly, we are also working with the partner and service provider community as more and more organisations are looking to evolve their security architectures. It is, therefore, critical to ensure we can meet demand throughout the region.

Over the last 12 months we have been building out our regional team, hand picking leaders across sales, marketing, and technical areas including pre-sales and technical support. We are continuing investments through India and South East Asia after first building out our footprint in Australia.

In your opinion, is cyber readiness at a satisfactory level in the APAC region? How can businesses be more cyber vigilant in this era where the rapid integration of mobile technology and social networking into our daily lives has resulted in major security breaches?

The fact is, that the attacker has the advantage. I always say the defender has to be right 100 per cent of the time, while the attacker only needs to be lucky once. This makes cyber readiness a significant challenge across the globe. The attack surface has never been greater with security architectures in many ways not keeping up.

We have really evolved past the era of “bring your own device”. Now it is bring your own device with your own app and work wherever it makes sense. This is resulting in an endless stream of endpoints connected to the network. Consequently, businesses must be vigilant in order to protect their networks. The key is educating users about cyber security and appropriate conduct





when at work but also when they are working outside of the corporate walls.

How is CrowdStrike combatting issues such as the recent rise in Ransomware attacks as well as the increase in other cyber crimes? How can CrowdStrike assist businesses with these cyber attacks that industry experts have predicted, will become commonplace this year?

One of the prominent challenges for the APAC market is the rise in ransomware attacks which mark a significant shift in the cybersecurity threat landscape. Ransomware continues to be very successful throughout Asia Pacific as organisations simply cannot keep up with the sheer volume of threats, which are evolving daily, outwitting security measures with innovative tactics such as leveraging vulnerabilities in trusted systems and deleting backup files. Standard security measures are inadequate against the increasingly sophisticated tactics ransomware criminals are adopting. More and more, businesses pay the ransomware because they need a quick fix solution. However, they should never pay the “ransom” and in many cases, as payment does not even guarantee their data will be returned. Unfortunately, ransomware is, and will continue to be, very financially lucrative for hackers, as many traditional solutions fail to protect businesses and in turn they pay the ransom.

There is no silver bullet to deal with ransomware, however, organisations can improve their security posture and lessen their chances of falling victim to a ransomware attack by adopting a layered approach that includes complementary prevention and detection methods. CrowdStrike has developed a more effective approach using Indicators of Attack (IOAs) to identify and block additional unknown ransomware and other types of attacks. IOAs look for early warning signs that an attack may be underway, signs which can include code execution, attempts at being stealthy, and lateral movement, to name a few. By identifying in real time the execution of these activities, their sequence and dependencies, IOA technology can recognise them as

early indicators that reveal the true intentions and goals of an attacker.

Please share with our readers on the edge that sets CrowdStrike apart from its competitors and how businesses can benefit in choosing CrowdStrike’s security solutions.

CrowdStrike stands out from its competitors on many fronts – our dedication to providing better, faster, and more effective endpoint protection hasn’t wavered since the first introduction of CrowdStrike’s cloud-native solution. In the last 12 months we have received significant industry recognition from top industry analyst organisations such as Gartner, Forrester and IDC, which validates to our customers that we are executing on our strategy to protect our customers and stop breaches with best-in-class technology and services.

Delivered via the cloud, CrowdStrike offers enterprises comprehensive oversight of everything that is happening on their endpoints, in real time, including application usage, inventory, and privileged account monitoring. We provide an independently proven ability to replace legacy anti virus solutions with a platform to protect against malware and malware-free attacks together with the ability to support active

threat hunting across an enterprise network.

The CrowdStrike Falcon® platform is built on an architecture that addresses these challenges by focusing on the “power of one,” integrating multiple advanced endpoint protection features within a single lightweight agent — 20 MBs in size — to deliver unprecedented efficacy against a wide variety of threats. CrowdStrike Falcon uniquely unifies endpoint detection and response (EDR) capabilities with next-generation antivirus and machine learning/artificial intelligence and behavioural prevention, all backed by 24/7 managed threat hunting. Delivered directly to each endpoint via native cloud architecture, Falcon’s “power of one” design provides an antidote to system tray bloat while offering unrivalled endpoint protection that is approved to replace legacy antivirus and fully meets PCI, HIPAA and other compliance needs. **SST**

“Ransomware continues to be very successful throughout Asia Pacific as organisations simply cannot keep up with the sheer volume of threats, which are evolving daily, outwitting security measures with innovative tactics such as leveraging vulnerabilities in trusted systems and deleting backup files. Standard security measures are inadequate against the increasingly sophisticated tactics ransomware criminals are adopting.”



AN INTERVIEW WITH

BENJAMIN LOW,

VICE PRESIDENT SALES FOR ASIA PACIFIC REGION

Please share with us on how your extensive knowledge of the Cybersecurity and IT industry in the Asia Pacific (APAC) region has helped contribute to the growth of Milestone's presence in the APAC market.

Asia Pacific remains one of the key regions for Milestone, and a strong growth pillar for our success. However, we recognize that the power of the collective will always be stronger than the power of one. Hence, we have been strengthening our presence through partnerships across the region, reinforced by the opening of our regional headquarters in Singapore in 2016.

Research and development is also crucial in our progress to make video a part of every solution in the world. To target the local market, we have also worked with research and development laboratories across universities in India, China and Singapore to develop applications addressing local business issues, of relevance to the local markets. With our open platform and strong SDK, we enable co-creation and drive innovation, enabling businesses to connect with us, and subsequently, with the rest of the security world.

We continue to drive a culture of innovation through events such as our recent Asia Pacific Milestone Integration Platform Symposium (MIPS), the first one held in the region. We had close to 300 customers, partners, and industry experts across Asia come together to network, collaborate, engage in dialogue sessions and workshops. Symposiums such as MIPS are an important part of our global strategy as they establish a global platform for partners to bring their products



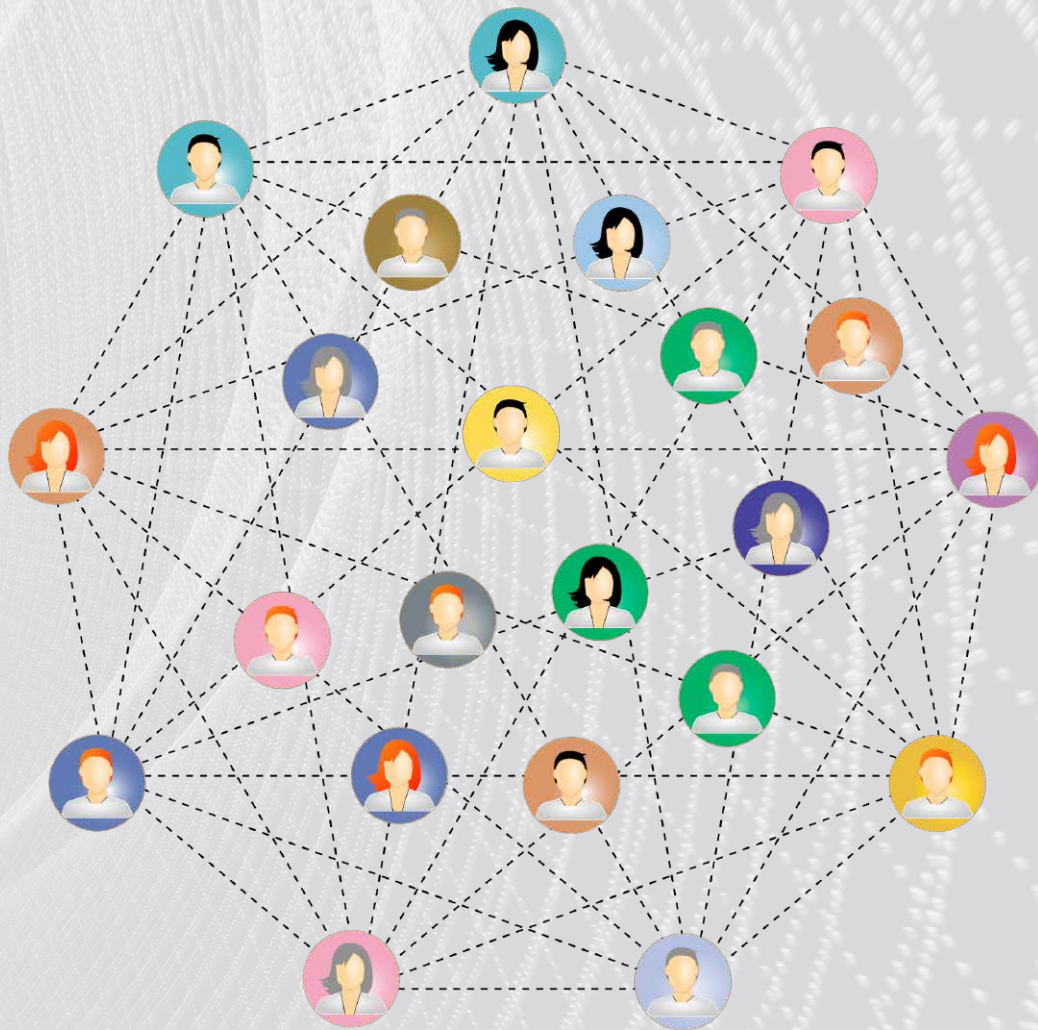
and software to a larger audience. This creates a win-win, mutually beneficial relationship that everybody and anybody can embark on.

What are your goals and aspirations for Milestone in terms of enhancing the company's presence in the burgeoning Asian Market?

Milestone continues to drive our vision of 'making the world see'. We have definitely seen a higher demand for integrating business systems with video, along with the desire to improve business processes through video integration, which has led to the management of increasing amounts of data.

Asia Pacific remains a key driver and important market to Milestone, and has played a significant part in our continuous growth in the past decade. With the depth and breadth of solutions expanding beyond physical security from city management to retail industries, we provide customers with an unmatched video solution innovation and value creation for their businesses.

With our open platform community, we want to be the enabler of a community for the security industry, allowing both customers and partners to come together in a collaborative exchange on each other's solutions. Through the Milestone open platform community, we aim to accelerate the growth of our industries through the amplification of partner network and community. For instance, channel partners will have access to a wider portfolio of solutions, while solution partners will experience that their solutions become more competitive and demand increases.



Cybersecurity experts have predicted that cyber threats will intensify in 2017 along with an influx of criminal activity such as increased ransomware attacks. What solutions can Milestone offer to tackle this issue?

Cybersecurity is increasingly a concern today. In the video surveillance market, one key issue that our customers are worried about is the unauthorised access of video feeds. Milestone's emphasis over the past year has been cyber security and has ensured that our system is hardened against threats. Sharing videos using secure platforms such as Milestone's ONVIF bridge ensures video access is a lot reliable under the range of

Milestone's cybersecurity features.

With Milestone's systems, different types of cameras and surveillance software can be integrated easily in a secure manner, where in the past, there was no open standard as many surveillance setups were using proprietary systems. ONVIF is envisioned as an "open enabler" that enables governments to request video feeds from other private operators/building during a national crisis.

What challenges will the Asian security market face in 2017 and what are the reasons behind these challenges occurring?

Cyber security has become critical to everyday life, turning it into a

major market segment. As more and more high profile cases are unveiled, concerns of the ability to secure networks and data are intensified. In 2017, this trend will only heat up as businesses rush to protect their data and avoid unauthorized data breaches. This is especially important as IoT gains traction, and more devices get used in both the public and domestic domains. Cyber security will become increasingly important as these unsecured devices leave potential gaps for criminals to extract sensitive data.

In addition, the CCTV and Surveillance market will continue its trend of consolidation. Driven by consolidation through multiple mergers and acquisitions of bigger market players, market share of the



“With our open platform community, we want to be the enabler of a community for the security industry, allowing both customers and partners to come together in a collaborative exchange on each other’s solutions.”

top 15 market players has increased by 11% from 2011 to 2015, and is further expected to become significantly higher by 2020. As a result, these current market conditions have made it very difficult for smaller players to withstand the price pressures and grow their revenue, while larger companies have gained significantly better market positions.

What are some of the challenges that Milestone has encountered that are specific to the APAC market and how were these issues resolved?

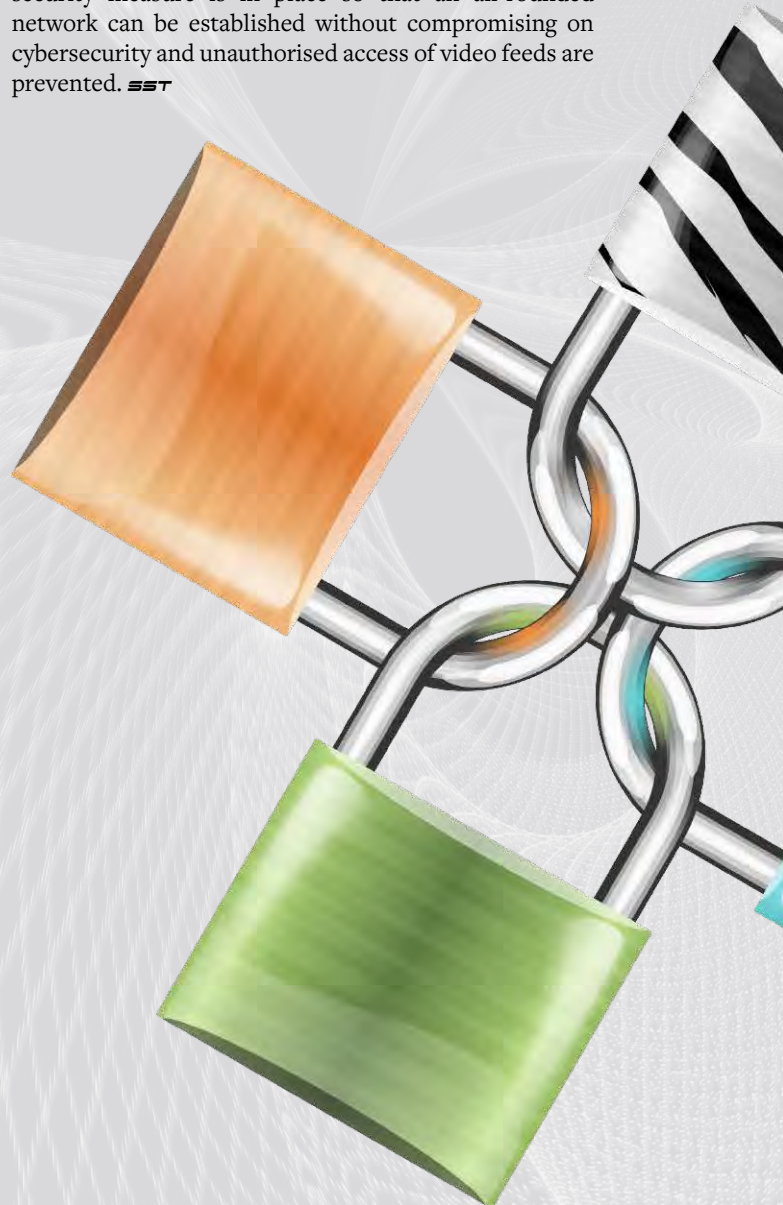
The past year has been marked by a constantly changing political landscape in the APAC market, which has resulted in different kinds of challenges for companies and a common need for cost-cutting. Therefore, price has remained a decisive point for businesses, as the global economy continues to recover. Businesses are reviewing their budgets with a comb, which has led to increased competition in the industry, and a “race to the bottom.” Specifically, we are facing stiff competition from some of the Chinese players, which has forced a downward pressure in terms of pricing, not just in surveillance software, but across the board – from hardware to access control, storage and other areas.

However, 2016 also marked the year when we increased our focus on supporting our partners in Asia, by understanding their needs and giving more leeway when it comes to pricing. We spent a lot of time not just with our resellers and partners, but also with our key customers as well, and that brought a greater sense of assurance. From our point of view, it is clear that having our partners and customers come together to collaborate and innovate the way forward.

What message do you wish to convey to our readers who mostly comprise of professionals in the security industry whom you may perhaps have the opportunity to collaborate with in the future?

The surveillance industry is undergoing a transformation and integration, and like any process, it takes time. Challenges in this process may include integrating different systems, adding new technologies as they are developed, increasingly sophisticated security challenges, with multiple access locations and significant public traffic always. As functionality of video surveillance cameras begin to improve, there is added complexity to existing solutions. There needs to be an open platform capability which allows seamless integration with numerous partners to ensure that various agencies can scale up their video surveillance installations. Open platform technology is the solution as it enables rapid rollout, is scalable and reduces overall cost of operation. Open platform solutions are crucial as they can be integrated into the whole security ecosystem, and additional features can be integrated and scaled and in the future.

As the video industry continues to mature, Milestone will continue to work with partners to integrate solutions seamlessly into any existing video surveillance infrastructure and, at the same time, ensure that a robust security measure is in place so that an all-rounded network can be established without compromising on cybersecurity and unauthorised access of video feeds are prevented. **SST**





Another Big Step, Dahua Technology Takes HDCVI to the 4.0 Era

HD analog is quickly becoming the mainstream of analog video. By 2018, over 90% of analog cameras will be HD analog (according to 2016 IHS report). Dahua led the industry to introduce HDCVI Technology in 2012, and continues to enhance the technology leadership by bringing state of the art performance in terms of resolution, light sensitivity, intelligence and usability to the HDCVI community. The comprehensive offering of HDCVI matches up very well to the IP equivalent. Customers can choose the most suitable system for their sites without being constrained to IP only. The emergence of multi-mode DVR, which records video from HDCVI, TVI, AHD, CVBS and IP cameras, makes it very easy to upgrade a site by increment.

Future development of HD analog must fit the needs of IoT and big data applications, which is driving the value of security systems in

the next few years. AI (Artificial Intelligence) Deep Learning will be a key technology component to enable this to happen.

Enter a New Era - HDCVI 4.0

Dahua is introducing HDCVI 4.0 technology framework, with 3 key components: 4K-HDCVI for superior video capture, IoT-HDCVI for multi-dimensional sensing and AI-HDCVI to transform HDCVI-video into searchable Boolean data. New products will be introduced throughout the year in 2017 to enhance the user experience of HDCVI customers. The HDCVI community can expect a lot more opportunities to use HDCVI technology to expand security application space.

Dahua 4K-HDCVI adopts 4K Ultra HD image acquisition and back-end DVR storage. HDCVI technology architecture overcame the common bottleneck of

transmission bandwidth to achieve high resolution video previously only available on IPC. This is a major breakthrough to extend the potential of HDCVI in future. Dahua IoT-HDCVI technology, combining with IoT sensing technology, enables cameras to surpass basic function of providing video information. Utilizing IoT sensors, coaxial cables are capable of transmitting not only video signal, but also information such as alarm, temperature and humidity. HDCVI technology architecture supports complex data transmission between camera and DVR, and makes it possible for multi-dimensional sensing camera and DVR to form an IoT solution. The near real-time transmission of HDCVI also improves the responsiveness of IoT applications. Dahua AI-HDCVI technology integrates HDCVI video and audio with AI (Artificial Intelligence) Deep Learning. AI-HDCVI performs near-human level accuracy in image classification and voice recognition



to transform HDCVI video and audio into searchable Boolean data. The output of these analysis could solve resource allocation problems for example, in the retail industry with customer and or in the management of city transportation with vehicle traffic analysis.

The scalable and expandable architecture of HDCVI enables future-proof products and solutions to be developed. It protects customers' investment by allowing seamless upgrade to new technologies as they emerge. Dahua HDCVI 4.0 comprises of 4K-HDCVI, IoT-HDCVI and AI-HDCVI leads the industry into a new era of higher resolution, more intelligent and convenient.

Dahua Technology Brings HDCVI into the 4K Era, a Brighter World

4K-HDCVI is the first product launched by Dahua Technology in 2017. While the industry is trying to break through the bandwidth constraint of coaxial cable transmission, Dahua releases the first 4K Ultra HD solution by deploying superior signal modulation mechanism and noise reduction technique. It transmits 4K video signal up to 700m (RG6 cable). Dahua 4K-HDCVI offering includes 4K box camera, 4K IR bullet& dome camera, 4K fish-eye panoramic camera, 4K multi-sensor 180 degree panoramic camera, and a series of 4K supported XVR (multi-mode DVR). Dahua 4K-HDCVI offering delivers 3840(H) x 2160(V) ultra-high resolution images, equivalent to 4X 1080 HD camera's, to achieve wide angle coverage and clear video evidence at the same time.

All HD analog technologies, limited by the data transmission capacity of coaxial cables, were not able to provide 4K resolution. Dahua Technology, leveraging on our superior signal modulation mechanism and noise reduction technique, developed TX &RX chipsets autonomously to break through this limitation. Dahua

4K-HDCVI products are capable of ultra-distance transmission:

- RG6 coaxial cables for 700m video and audio lose-less transmission
- RG59 coaxial cables for 500m video and audio lose-less transmission
- UTP Cat 6 network cable for 300m video and audio lose-less transmission

The New 4K XVR recorder is compatible with all existing HDCVI/HDTV/AHD cameras, meanwhile, it also supports CVBS and IP cameras. All these make upgrading to 4K much more convenient and cost-effective. The installation, configuration, operation and maintenance of 4K HDCVI are the same as before, preserving the plug & play convenience of analog video system. Once your existing DVR is replaced by a new 4K XVR, you can simply replace the existing camera with 4K camera or add 4K camera as you go.

DH-HAC-HF3805G, adopts the SONY 4/3" 8MP STARVIS sensor, is able to output 3840(H) x2160(V) ultra HD images with impressive night performance due to the bigger size sensor. It is also the first HD analog camera to utilize M43 mount lens in the security industry which brings the rich selection of M43 lenses to customers. Users can choose their preferred lens based on different scenarios. This camera also delivers functions like autofocus, image magnification for dynamic detection and a linkage alarm without the need to use with the back-end. All the settings and functions can be easily controlled by the OSD menu, and use together with applicable housing, this camera is good for outdoor surveillance. DH-HAC-HF3805G is truly THE camera for high performance surveillance under poor illumination.

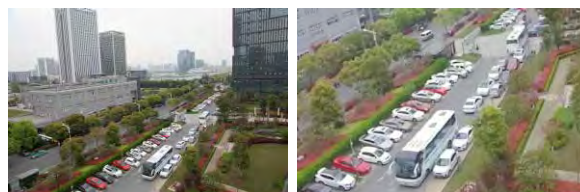


A 4K-HDCVI Star Product - DH-HAC-HF3805G

Cable Type	Resolution	HDCVI	TVI	AHD
Coaxial Cable (RG6)	4K	700m	X	X
	4MP/3MP	700m	500m	300m
	1080P	300m	300m	500m
Coaxial Cable (RG59)	720P	1200m	1200m	300m
	4K	500m	X	X
	4MP/3MP	500m	300m	<300m
UTP (CAT6)	1080P	500m	300m	300m
	720P	300m	300m	500m
	4K	300m	X	X
UTP (CAT6)	4MP/3MP	300m	<200m	<150m
	1080P	200m	<200m	<150m
	720P	450m	300m	200m

Table of Transmission Distance Test

*Figures are affected by different lab conditions.



4K-HDCVI

1080P



Applications of Dahua 4K Ultra WDR Starlight HD Camera

Another star product is the DH-HAC-PFW3601, which is the first HD analog multi-lens infrared camera with a 4K 180 degree panoramic view. This star product makes use of Dahua's advanced image stitch algorithm to perform 180 degrees panoramic seamless stitching. It can be controlled by the OSD menu and easily operated. By using three SONY STARVIS sensors and F1.4 large aperture lens, this infrared camera delivers high quality images even under low light. It also outputs panoramic seamless stitching images and 3 single-lens images. Working with the 4K XVR, panoramic images can set up an electronic cruise model to realize a multiple target split-screen view using the magnifying tracking function. It will benefit the detection of moving targets in critical areas. In addition, the camera has IP67 and IK10 protection, making it a good choice for important entrances and exits area, city transportation junctions, and parks.



A 4K-HDCVI Star Product - DH-HAC-PFW3601



DH-HAC-PFW3601 Delivers Quality Images under Low Light

4K-HDCVI, IoT-HDCVI and AI-HDCVI are going to increase the potential market space of HD analog and protect the investment of HDCVI customers. New products will be introduced throughout the year in 2017 to implement the HDCVI 4.0 framework. Follow us on LinkedIn, Facebook to get first-hand information on new product releases. **EST**



Model: BACS™ (Biometric Access Control System) Quattro and Duo

By: Crucial Trak | www.crucialtrak.com

Product Specifications:

- Fast and Seamless Bio-Authentication
- Unique and Attractive Design
- Intuitive and comfortable UX
- Simultaneous touchless Fingerprint and Palm Vein Recognition
- 2D/3D matching face recognition
- Various and easy options for enrollment
- Multi credential verifying options



BACS™ Quattro



BACS™ Duo

Biometric technologies

Face

- CrucialTrak's unique facial recognition technology presents the fastest, most advanced and convenient experience for every users. Facial Images are captured in most accurate 3D patterns from widest angles of access paths.
- Automated face tracking module captures faces of people with wide range of heights (heights range from 120cm to 220cm/3'11" to 7'2")
- Captures only the pass-thru user's face (eliminate other faces within the frame)
Real-time facial identification under 0.001 second
- Low light level counter-light support

Fingerprint

- Absolute Touchless UX with capturing 30 micro-fingerprint Images in every 1 sec, CrucialTrak's unique On-The-Fly fingerprint recognition system provides the most assured and fastest authentication environment.
- Touchless User Experience
- Captures 4 different fingerprints at the same time
- User Friendly On-The-Fly Interface
- Organic 3D Recognition and Fastest 30 Shots/Sec Matching Algorithm

Iris

- World's first auto-tracking mechanism with minimised user's MTAE (Meantime Attempting Effort).
- Auto Iris Tracking minimises user's effort
- Large caliber Zoom Autofocus Control
- Long distance identification
- Best Image Selection Algorithm
- Satisfies IEC-62471 Safety Standard
- PWM radiation intensity control
- Partial Iris donut recognition

Palm Vein

- CrucialTrak's On-The-Fly Full Touchless palm vein recognition, simultaneously interlocked with fingerprint recognition, provides the fastest learning, most accurate, and highly comfortable identification experience, with the design built by Bio-Mechanism UX analysis.



- Advanced matching algorithms ensure high level of accuracy
- Contactless user interface eliminates hygiene concerns
- Less than 0.00001% false acceptance rate
- BACS™ (Biometric Access Control System) can be applied from critical infrastructures, where highest level of security is required, to small size businesses which have lower security requirements but still want to approve on unique authentication abilities.
- Government
- Commercial
- Education
- Finance
- Health Care
- Critical Infrastructure



Model: S3040 Portable Hand-Held Card Reader

By: **CEM Systems** | www.cemsys.com

Product Specifications:

- Dual credential authentication through card swipe and visual confirmation of cardholder photograph
- Hand size and robust
- Authenticate cardholder details anywhere, even if mains power is unavailable
- Large internal memory capacity storing up to 200,000 card records on-board
- Internal capacity for up to 8,000 offline transaction events
- High-res 3.5" TFT QuadraClear® display touchscreen with stylus pen
- Connection via WiFi (using WPA2-AES Encryption) or USB Ethernet hub
- Deluxe protective carry case with straps
- Applications include construction site access, temporary entrance gates, guard tours, and a variety of off-site locations
- Roaming across pre-defined zones
- Mustering at safe areas with muster count and mini report Occupancy for head count in a defined area
- Support for 125kHz HID Proximity, MiFare or DESFire CSN, HID iClass/iClass SE, PicoPass Sector and CEM DESFire
- LifeSupport™ spare batteries available
- PS336 Office Docking provides charging capability not only for the S3040 Portable reader but also for a spare battery simultaneously.





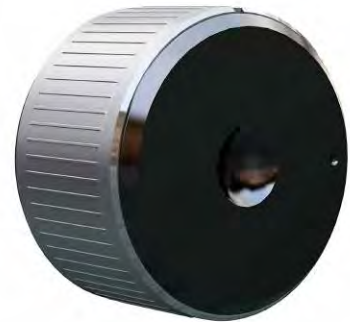
Model: DanaLock V3

By: **Danalog** | www.danalog.com

Product Specifications:

The DanaLock V3 evolution is based on the feedback from devoted customers and the latest development in data security and smart home technology. Smaller, stronger and easier to install the V3 takes the lead on the smartlock market and is setting new standards for years to come. The connections between the phone and the DanaLock V3 is performed similar to TLS 1.2, which is used by banks and security systems around the globe. The high security level has been acknowledged by companies like Apple, Amazon, Google Nest and many others.

- Based on more than 10 years of experience
- User will be sole owner of DanaLock
- Access to others to user's home can be granted via creating and sending permanent, recurrent, or temporary access-keys via SMS or email.
- Notification when the user accepts invitation and whenever lock is used
- Child-friendly and easy to lock/unlock
- Easily mounted by fitting it over the bracket and turning to snap it on
- Global fit in US, Europe and Japan
- Fits all doors by simply clicking on the lock
- Compatible with Amazon Echo, Nest, IFTTT, Harmony, Bluetooth Smart, Z-Wave, Zigbee and HomeKit
- Equipped with a special TPM chip to handle all security aspects
- Chip stores encryption keys with extremely high level of security
- All keys are exchanged without any private information leaving chip
- Supports all integration possibilities for 3rd party applications
- TwistAssist - turn the handle slightly and door locks or unlocks



Model: Emerald TS300f

By: **CEM Systems** | www.cemsys.com

Product Specifications:

- Industry's most multifunctional access terminal
- User friendly 4.3" capacitive LCD touch screen
- Intuitive GUI enhancing user experience at the door
- IP card reader and controller in one
- PIR motion detection
- Voice over IP (VoIP) Intercom functionality
- Support for a range of smart card technologies
- Ability to securely run Remote Applications from AC2000 central server directly at the door
- Scramble keypad option
- Offline database for 250,000 cardholder records
- Multiple door modes
- Power over Ethernet technology
- Easy to install
- Biometric fingerprint option (TS100f/TS200f/TS300f options)



Model: HID pivCLASS® Biometric Reader

By: HID | www.hidglobal.com

Product Specifications:

- Intended for use in areas requiring the highest level of security
- Suitable for meeting FIPS-201 criteria for “Controlled”, “Limited” and “Exclusion” access areas
- Must be used with a pivCLASS Authentication Module (PAM) to provide strong authentication to ensure card presented is genuine, data has not been manipulated, the card has not been compromised or stolen and the PIN has not been shared
- When biometric feature is engaged, reader provides the highest level of identity assurance
- Authentication of the PIN
- Validation of the PIV Authentication Key certificate
- Validation of authenticity of fingerprint template on the card
- Comparison of live fingerprint to the template



Key Features:

- Comprehensive feature set includes combined contact/contactless capabilities, keypad, liquid crystal display and biometric sensor.
- Dual reader interface provides contact backup if contactless antenna sustains damage
- Dynamic and configurable to support one, two or three factor authentication that matches time of day, day of week or threat level





Model: Smartcode 916 Touchscreen Electronic Deadbolt / 916TRL ZB L03 UL

By: Kwikset | www.kwikset.com

Product Specifications:

- Capacitive touchscreen
- Secured keyless entry convenience
- One touch locking
- Works with Amazon Alexa via Samsung SmartThings and/or Wink
- Dramatically reduced interior size and sleek metal design
- 30 user codes plus master code feature for added security
- BHMA grade 2 certified
- 20 minute fire rating - UL certified
- Full 128-bit encryption security
- SmartKey® technology - the lock you can re-key yourself in seconds in three easy steps
- SmartKey® re-key technology is compatible with Kwikset (KW1) keyway
- Patented side locking bar technology offers improved security by protecting against lock bumping, an attack technique used to defeat conventional pin & tumbler locks
- Installs in minutes with just a screw driver no hard wiring needed
- Fits standard doors (1-3/8in. – 2in.) no new screw holes required
- Lifetime mechanical and finish warranty. 1 year electronics warranty



Security Solutions Today is now on issue!
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Model: Motorola H375iS

By: Motorola | ⓘ www.motorola.com

The H375iS is a rugged and durable handset equipped with Motorola's Integrated Digital Enhanced Network (iDEN) technology. It is ATEX certified and built to meet Military 810G specifications for ingress protection.

Technical features include Emergency Group Call button, Multi-scan Talk Group capabilities and other features. It also comes with long battery life, Bluetooth wireless communication, Push-To-Talk and phone functionality which are useful features in daily use. The H375iS has supporting accessories which can be purchased separately.

Product Specifications:

- ATEX Certification**
 Zone 1: II 2G Ex ib IIB T4 Gb (Ta = -10°C to +55°C) II 2D Ex ib IIIC T135C
 Db (Ta = -10°C to +55°C) ExVeritas 16ATEX0216 X
- Connectivity**
 Bluetooth: Yes, 2.1 EDR Antenna: Internal
- Ruggedness**
 Ingress Protection: IP54 Operating Temperature: -10°C to 55°C
- Audio**
 FM Radio: Yes Speaker Volume: Estimated 95 dB SPL (@1kHz)
- Dimensions**
 Size: 145.2mm x 67mm x 40.3mm
- Battery Life**
 Talk-Time: 8.5 hours Stand-by: 142 hours
- Network**
 Operating Band: iDEN operating frequencies
- Display**
 Screen Size: 2.2-inch Display, 65K Pixel Density: 240 x 320 Pixels



Note: *Advanced Features Unit (AFU) features are only available upon additional subscription

Do you have products for us?
Good! Email us at [sst@tradelinkmedia.com.sg](mailto:ssst@tradelinkmedia.com.sg)





Model: Predator Overview

By: 360 Vision Technology | www.360viontechnology.com

Product Specifications:

- 90° Field of View Full HD Overview Camera (3x)
- Supporting Intelligent IR and White Lighting
- 30x Zoom Full HD Main Target Camera
- Fully rugged construction
- Hinged Mounting Base featuring direct connections and Industry standard PCD mounting
- Designed and Manufactured in the UK
- Any colour, any quantity
- Predators will automatically return to their original position if physically moved/attacked
- ONVIF 'S' compliant or 360SDK, see our web site for the many compatible VMS systems
- Illumination automatically adjusts the lighting intensity to ensure the highest quality images under variable lighting conditions
- Full range of Dual IR & White Light options
- Sirius illumination combines narrow, medium and wide angle lenses
- IP67 certified for the harshest environments
- Extreme low light cameras with mono video images as low as 0.0008 lux (no illumination)
- 24 privacy zones are available with simple joystick positioning and sizing
- 10 year maritime paint option
- 3 year warranty



Model: RS232 Fiber Optic Multiplexer ("Micro" 4/8 ch; Async/Sync)

By: TC Communications | www.tccomm.com

Product Specifications:

- Multiplexes Async/Sync Simultaneously
- Data Rates up to 56 Kbps
- Multimode or Single Mode (850/1300/1550nm)
- Small Size (5/6" x 4" x 13/4")
- Up to 8 Async Channels
- Up to 4 Sync Channels (Ext. Clock)
- Extend Up to 8 Telephones with TC1900 Quick-Talk Telephone Extender
- Hardened Temperature
- Used in harsh environments where ground loops, EMI/RFI interference and lightning conditions may affect transmission signal quality



Model: Proto AHD-SD13F36IR

By: Reolink Digital Technology Co., Ltd | www.proto-x.net

Product Specifications:

- Progressive scanning based on the newest AHD technology
- Equipped with the latest ISP NVP2431H and 1/3" SONY IMX238 1.3Mp CMOS sensor
- Video recording with a high sensitivity and excellent color reproduction at the resolution of 960P (1280×960)
- Transmits uncompressed video stream
- transmit image without quality losses at distance of 500 meters
- 36 IR LEDs perform additional lightening of watching objects at night
- Smart-IR and Sens-Up functions helps avoid distortions while recording video day or night
- Resolution 1,3 Mp (1280×960 px)
- Fixed lens 3,6 mm
- Sensitivity 0.05 Lx (Sense-up off, IR off)
- IR LEDs (36 pcs.)
- Max IR range - 25m
- Automatic day/night mode
- On-screen menu (OSD)
- Digital Wide Dynamic Range (D-WDR)
- Digital Noise Reduction (2D-DNR, 3D-DNR)
- Backlight Compensation (BLC/HLC)
- Operating temperature: -10°C ~ +50°C
- Power supply DC12V / max 410mA
- Overall dimensions: D94×69 mm



Model: SAD001AHD HD-TVI AHD HDCVI Transmission

By: SuperOn | www.superon.com.tw

Product Specifications:

- Converts AHD signal to HDMI, VGA, Composite Video or AHD loop out
- Input Support: AHD 1.0 720p@25/30 and AHD 2.0 720@50/60hz, 1080p@25/30Hz, Composite Video (NTSC, PAL)
- Output Support: HDMI, VGA, Composite Video or AHD loop out
- 3 outputs could be display simultaneously
- BNC connector function selection: AHD loop output, Composite video output or as second AHD input
- Built in PIP (display two input picture) under dual AHD/CVBS input mode
- HDMI/VGA output support: 480p,576p,720p,1080i,1080p
- Composite video output support NTSC, PAL
- Composite output built in underscan adjustment. (allow the edges of the picture fit well)
- Built in OSD to display input/output setting
- HDMI and DVI compliant. (Support DVI monitor by a HDMI to DVI adaptor)





Model: PTX-AHD404E

By: Proto Video Surveillance | www.proto-x.net

Product Specifications:

- 4-channel AHD video recorder
- Equipped with high-end HiSilicon 3520D processor
- Works in trihybrid mode
- 4 video and 4 audio channels to connect AHD, IP and analog video cameras in different variations
- Record speed and playback speed of 200 fps for qualitative video without latencies
- Utilises state-of-art AHD technology
- Work mode: TRIHYBRID
- Quantity of video/audio channels - 4/4
- Video/audio outputs 1-VGA (up to 1920x1080), 1-HDMI / 1-RCA
- IP-camera support: 4x720p / 2x1080p
- Embedded Linux software
- Record modes: planned time, motion detection, manual, on schedule
- Record: 4 ch x 25 fps | 4 ch x 12 fps
- Playback: 1 active ch x 25 fps + 3 inactive ch x 5 fps | 4 ch x 12 fps | 8xIP or 2x1080P
- Display: 4xAHD or 2xAHD+ 2x960H or 2xAHD+2xIP or 2x960H+2xIP or 8xIP(720P) or 2x1080P
- Backup 1xHDD SATA up to 4 Tb, archive on USB-flash, through the network on PC
- External interfaces: RJ45, 2xUSB 2.0
- Network protocols: TCP/IP, UDP, HTTP, PPPoE, RTP, ONVIF 2.0
- Power supply DC12V 2A
- Overall dimensions: 259x228x47 mm



Model: VAR2-IPPoE-i8-1 Long Range Infra-Red Network Illuminator

By: Raytec | www.rayteccctv.com

Product Specifications:

- Dedicated IP Lighting for Network Cameras
- PLATINUM Elite SMT LED Technology
- Integrated Web Interface
- API for Platform Integration
- VARIO Interchangeable Lens System
- Angles 10-120 degrees from 1 product
- Hot-spot Reduction Technology (HRT)



Model: VM-HD4 HD CCTV Multiplexer, Analog, AHD, TVI Video Quad Screen Processor

By: CCTV Camera Pros | www.cctvcamerapro.com

Product Specifications:

- 4 Channel BNC Video Inputs
- Each Input Accepts Analog CCTV, TVI, AHD Cameras
- NTSC and PAL Video Format Supported
- HDMI Video Out - HD Video Out
- VGA Video Out - HD Video Out
- HD Video Output Selectable - 1024 x 768, 1280 x 1024, 1440 x 900, 720p/50/60, 1080p/50/60
- 2 BNC Video Out - CVBS Video Out
- Real time refresh rate
- Video Freeze
- Digital Zoom
- Separate Color Adjustments for each Security Camera
- Selectable Video Display Modes
 - Full Screen / Single Camera
 - Quad Screen / 4 Cameras
 - Picture in Picture
 - Dual Screen (2 camera split screen) - Horizontal & Vertical Modes
 - Auto sequence - scrolling single camera / full screen
- Wireless Infrared Remote Control Included
- Power Supply Included - DC 12V 1amp
- Product Dimensions: 8.25" x 6" x 2" (width x depth x height) in inches





POLICE LINE DO NOT CROSS POLICE LINE DO NOT CROSS

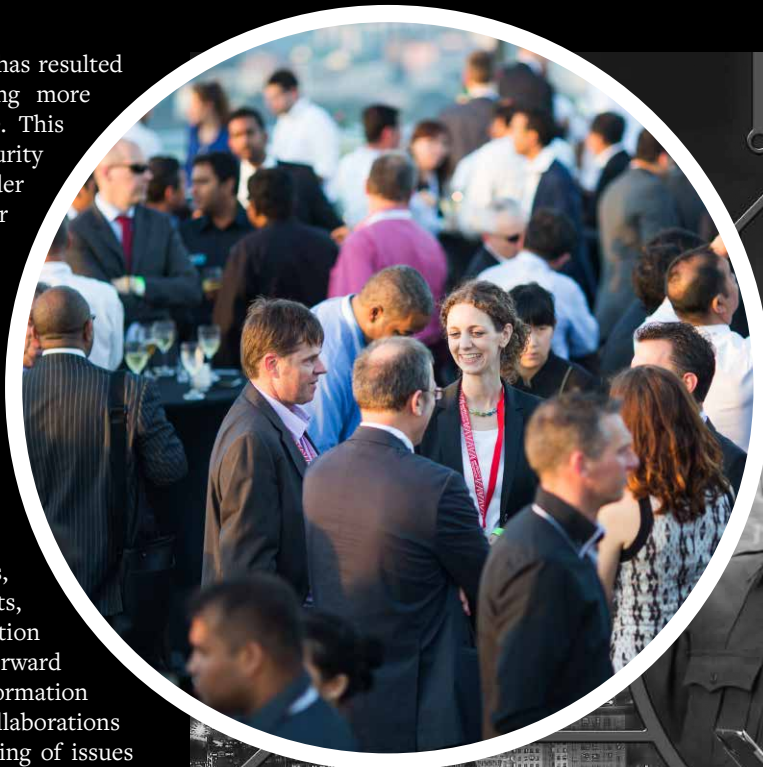
INTERPOL World 2017

The connected world of today has resulted in criminal activity becoming more complex both on and offline. This has given rise to the need for the security industry to evolve accordingly in order to effectively tackle the surge in cyber crimes.

INTERPOL World 2017 is a global exhibition and congress platform that encapsulates the vision of a safer world through using innovations and engaging government, organisations and strategic think tanks in a multi-stakeholder approach. The exhibition will truly be a meeting of minds in the form of law enforcement agencies, government bodies, academic experts, security professionals and solution providers. Attendees can look forward to four days of networking and information exchange that aims to stimulate collaborations between stakeholders in the addressing of issues such as crime in the future.

INTERPOL World 2017 will feature an all-new conference structure in order to provide attendees with a more guided experience with an end-to-end approach. There will also be over 40 speakers from both public and private sectors participating in the Congress. Topics that will be addressed in the Congress will consist of Cybercrime (4 July), Future of Policing in Global Cities (5 July) and Identity Management (6 July).

Attendees can look forward to hearing from leading security solutions providers at the congress. The list includes Microsoft, SICPA SA, Huawei Technologies and Securiport. Leaders from Police





Departments and Security Research Institutions such as Standard Chartered and the International Organisation for Migration (IOM) will also be present as panellists during discussions. The congress will also engage international delegates in dialogues on currently trending topics such as cyber security, biometrics, IoT, robotics, artificial intelligence and more.

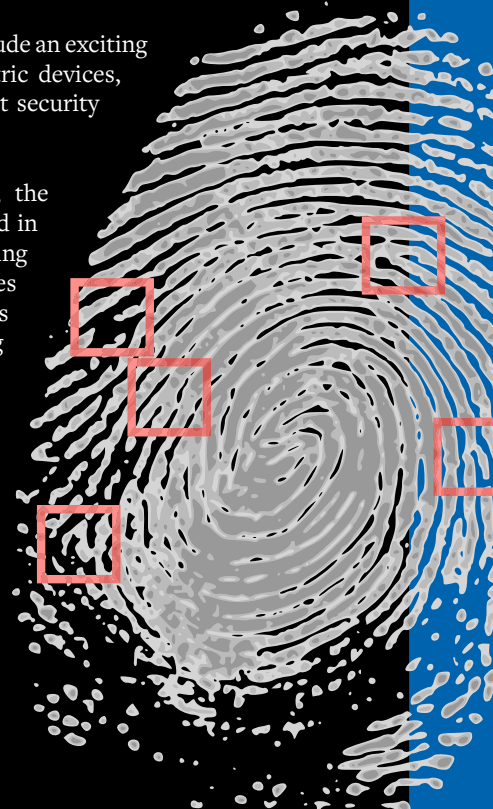
As the world's largest international police organisation, with 190 member countries, INTERPOL provides secure access to global databases of police information on criminals and crime, operational and forensic support, analysis services and training.

The exciting array of products features will include an exciting plethora of products such as outdoor biometric devices, forensic analysers and even a highly intelligent security robot.

Being held for the second time since 2015, the congress and three-day trade exhibition hosted in Singapore is just in the nick of time in providing solutions and responses to security challenges of the present and future. Over 200 companies from 30 countries and regions will be showcasing solutions at the Exhibition for law enforcement agencies, government bodies, academia, solution providers, security professionals, and buyers from around the globe.

INTERPOL World 2017
 Congress: 4-6 July 2017
 Exhibition: 5-7 July 2017
 Suntec Singapore Convention &
 Exhibition Centre

For more information, please visit
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Oneberry RoboGuard™

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- Innovative security deterrent
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- Robust hardware to support proactive remote monitoring
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- Powered by smart fuel cells as an independent power source



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- Replaces rubber stamps with a unique and secure travel stamp directly printed in the passport
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- Easy verification and authentication of secured information
- Unique for each border crossing event
- Cost-effective roll-out of new stamp template in case of counterfeit detection



Forensics MagiCube iDC-8811

By: Xiamen Meiya Pico Information Co., Ltd

- Integrates functions such as duplications, Forensic Master™ (analyzer) and OS emulator for field investigation
- Contains built-in write-blocker
- Powerful host computers
- Rich interfaces
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- User-friendly interface



ReaQta-Hive

By: ReaQta Ltd

- Endpoint threat response solution powered by NanoOS detection
- Artificial Intelligence for detection and triaging
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- Always ahead of the threat





Eyelock Nano EXT

By: Sierra Solutions Pte Ltd

- Designed for Outdoor / Harsh environments
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- Proprietary optics and illumination allow for operation in direct sunlight or night time
- Complete Hands-free operation with auto-height adjustment



Arbor Networks Spectrum

By: Arbor Networks

- Epic Range
- Provides complete network visibility paired with thoroughly vetted ATLAS (Active Threat Level Analysis System)
- Threat intelligence distilled from one-third of all global internet traffic.
- Faster Proof to reach conclusions that matter faster with real-time flow and packet analysis
- Built-in investigation workflows
- Rapid search and easy pivots into months of past network and user activity turning days and hours of work into seconds



UCAMpro IoT Gateway

By: Chunghwa Telecom, International Business Group

- Connects cameras and various sensors such as PIR sensor, water level sensor, smoke detector
- Transmits the video or detection result to UCAMpro system
- Since the transmission is pushed out by the gateway proactively through the firewall, user's device will not be exposed on the Internet
- Keeps hackers from discovering user's devices
- Compatible with ONVIF protocol and works with popular IP cameras
- Flexible
- Scalable



COM-SUR

By: Hayagriva Software Pvt Ltd

- World's only CCTV/video auditing, smart backup and audit/incident reporting software
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- Makes it very easy to Aggregate relevant Screenshots/Images from Multiple sources
- Creates 'Visual Lists' in Word/PDF
- Helps in Forensics and Investigations.





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Facial Biometrics for Mobile

By: Innovatrics

- Fast 1:1 Matching
- Industry-Leading Accuracy
- Small Footprint
- Customisable
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- Multiplatform Support



Genetec Clearance

By: Genetec Asia Pacific Pte Ltd

- Collaborative case management system that can help speed up investigations
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- See the bigger picture with all evidence in one place
- Operational excellence from collection to case closed
- Helps a team work smarter from anywhere
- Enables users to engage with other agencies without delays or shipping costs



oVio360

By: oVio Technologies Inc.

- 360 hi-res stills in a single video file in 12 seconds
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- Integrates with and enhances performance of facial recognition applications
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- Export options include 3D, video and stills



IIG Track&Trace System

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- Product authentication
- Tracking and tracing throughout a supply chain
- Reporting and analytical tools
- Integrated anti-counterfeiting tax stamps
- Central data depository under government control





Security Solutions Today

Security Solutions Today (SST) is a leading publication on the latest security information, trends and technology, and products that include Access Control, CCTV/IP Surveillance, Intrusion Detection and Integrated Security Systems.

SST is packed with the latest developments in security technologies and trends, events, previews and reviews of major global trade shows, product launches and security installations worldwide.

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FROM IOT TO ROBOTICS

— SECURITY WITH A SIDE OF ARTIFICIAL INTELLIGENCE



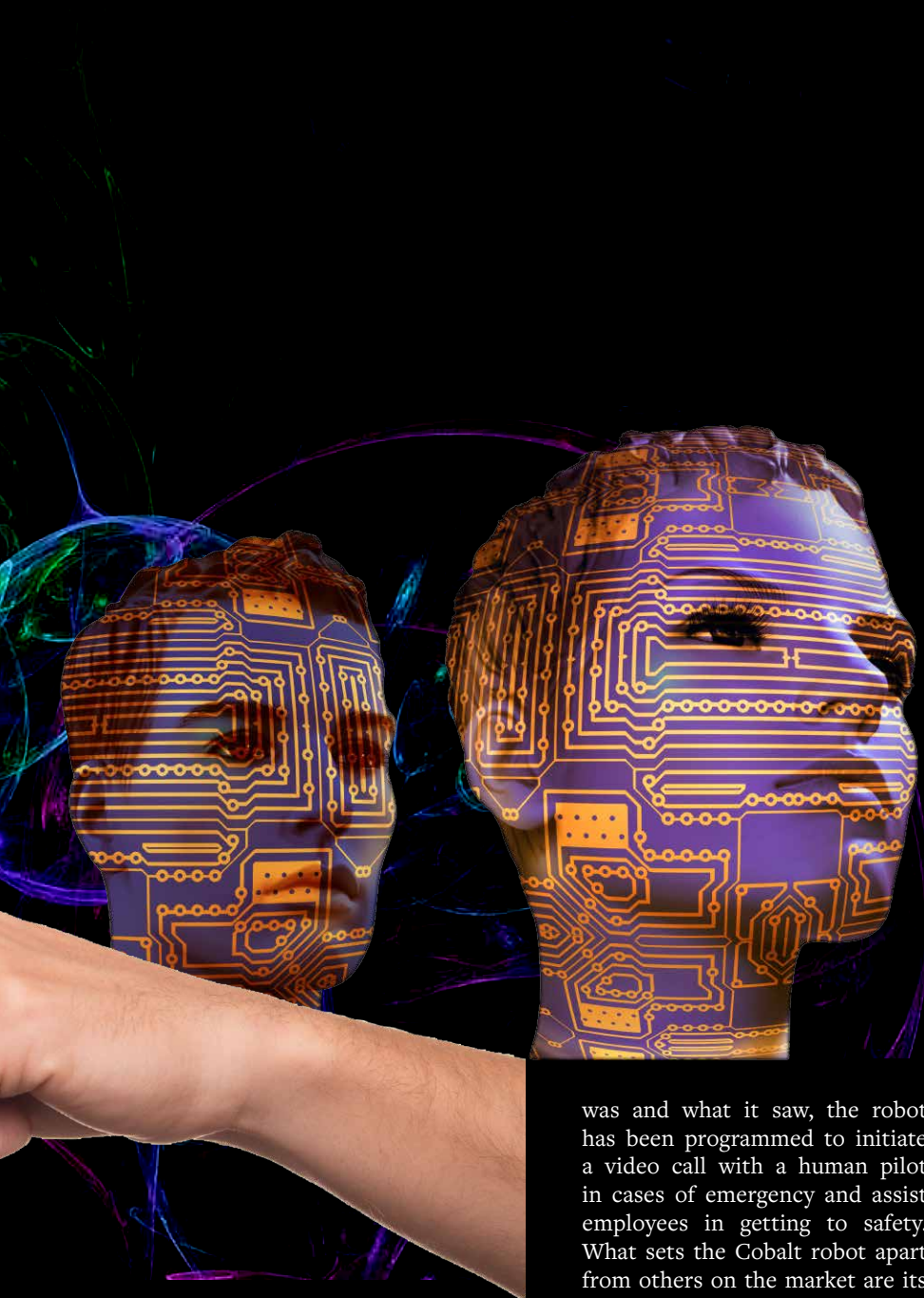
It was not too far back in time when cartoons such as the Jetsons and television shows like StarTrek served as a form of escapism for futuristic fantasies of automated living spaces and technology as a way of life. That dream has now become a reality and continues to burgeon as technological developments advance on a daily basis. Smart locks and Iris Scanners are no longer the stuff of Science Fiction or Futuristic Dystopian films and have become an integral part of life in 2017. We currently live in a connected world wherein the Internet of Things (IoT) has ushered in a whole new level of SMARTness from our microwaves to our front doors.

In an era where artificial intelligence is already part of our daily lives from the time we wake up in our Smart homes to the time we biometrically activate our home security systems, it is inevitable that the next step would be to delve into robotics. Futurism meets functionality in the form of security robots equipped with artificial intelligence that serve to enhance the level of protection required in today's climate of increased criminal activity both on and offline. These robotic counterparts serve to assist security personnel and add a smart dimension to surveillance, which is required to prevent incidents as opposed to simply observing now and acting after the fact.

In Singapore, all seeing robots that are each equipped with a neck full of five cameras, two front cameras, and

four wheels are currently patrolling public spaces such as parking lots in place of human security guards. The brainchildren of San Francisco-based SMP Robotics, Robot-as-a-Service or RaaS for short, are currently utilised by Ademco Security and can perform a multitude of functions that include recording licence plates, 360-degree view of surrounding activities from up to 10 meters (32 feet) away and even sending alerts to a 24-hour manned command centre upon detecting anomalies like fire or loud sounds. Businesses are also becoming more receptive to the idea of robotic protection and enforcement due to the high turnover of the security industry locally. While human intelligence and intuition are still indispensable currently, these "robocops on wheels" complement the work of existing security personnel thanks to their ability to withstand scorching and humid weather conditions and their immunity to physiological problems. "With advancements in sensor, communications and analytics technologies, we can now realistically and readily offer RaaS as a sustainable security solution to address the challenges of human patrolling," says Toby Koh the Group Managing Director of Ademco Security Group. All in all, robotic security solutions are not only enhancing security for businesses but reducing security expenditure significantly in the process as well.

To secure internal perimeters, Robotics company Cobalt has created a domesticated security robot that is



as efficient in the art of surveillance as it is minimalistic chic. Designed by Industrial Designer Yves Béhar, this fashionable robot is loaded with more than 60 sensors and computational power that can handle machine learning algorithms. The robot's primary function is to patrol the premises, looking for intruders or anything that is out of the ordinary while providing a friendly face to office employees. Say hello to the corporate office of the future! Unveiled in March 2017, the robot possesses the ability to not only detect anomalies but react in emergency situations as well. With its super-human sensors complete with perfect recall and an auditable history of where it

was and what it saw, the robot has been programmed to initiate a video call with a human pilot in cases of emergency and assist employees in getting to safety. What sets the Cobalt robot apart from others on the market are its cutting edge features that include the ability to recharge itself, download updates from the cloud, over 60 sensors including 360 degree night and thermal vision, 3d mapping and badge reading abilities. This robotic marvel also elevates security to another level with its highly interactive features comprising of video chat with pilots to provide user input, a LED ring to signal robot intention and a directional microphone array for crystal clear communication. Cobalt is currently upgrading the robot to support other departments such as Facilities, IT and even Human resources. There is also talk that soon these robots could be tailor made to be used in residences. New skillsets will include WIFI mapping for

signal strength and locating rogue hotspots as well as the tracking of valuable assets, guest checking and many more. "Our robot has eyes on the back of its head, can see in pitch black, never needs to sleep and when it finds something, it can 'skype' in a highly trained pilot to make hard decisions," says Travis Deyle of Cobalt Robotics.

In the past decade, the world has become a much more dangerous place to live and it truly does seem as if the advancement of technology is aligned with the rise in acts of terrorism and other criminal activities. However, the industry venturing into the fascinating world of automation and robotics have created solutions to combat these issues in a highly effective manner. There are of course several concerns that arise from the use of robotics in security such as the fact that the robots can be hacked and reprogrammed for malicious intents and purposes. This is also a concern that has been expressed with smart home devices and systems. The advanced level of intelligence that security robots possess along with the data they protect makes them a colossal security risk which is a problem that companies most definitely have to examine in depth.

Welcome to the future where films like AI (Artificial Intelligence) and I-Robot are slowly becoming a reality. Technology has gone as far as to permeate the human biology, as seen with body hacking and RFID chip implantation which was demonstrated at IoT Asia 2017. The fusion of flesh and fibre optics is just one of the advancements resulting from the "Wififying" of the world around us so it is only natural that till the time comes when humans can be free of their physiological limitations, robots should step in to assist. The golden age of robotics has most certainly dawned upon us and is making its mark in the most important way of all, safeguarding our lives. **SST**



IoT Asia 2017
International Exhibit and Conference on the Internet of Things
Singapore Expo
Singapore, 29 – 30 March 2017

IoT Asia 2017 Back for the Second Time Since 2014



Back for the second time since 2014, The International Exhibit and Conference on the Internet of Things (IoT Asia 2017) was held at the Singapore Expo from 29 – 30 March. This illuminating event served as a trade platform for the Asian market in keeping abreast with the rapidly burgeoning era of IoT as well as enlightening security professionals on the opportunities that exist within the IoT landscape. The event proved to be one that was truly necessary and relevant to existing times wherein physical security for example is becoming more integrated with the internet due to the digitalisation of everything from access control products to alarm systems. The event featured over 100 sponsors and exhibitors and over 4500 experts, decision makers and Small Media Enterprises (SME) from over 40 countries including France, China and India. On the security front, businesses featured included Renesas, a company reputed for its security solutions in diverse markets including residences, offices and the cityscape as well as G Element the company behind the Nucleus 3D Unified Management System for data centres.

IoT Asia 2017 was officially opened on 29 March by Singapore's Minister for Foreign Affairs and Minister heading Singapore's Smart Nation Initiative - Dr Vivian Balakrishnan. In recent years, Asian governments have undertaken new initiatives in transforming their respective countries to be future-ready. One such initiative is Singapore's Committee on the Future Economy (CFE). In line with these initiatives and the need to propel Asian industries into the IoT era, IOT Asia has become the quintessential platform for governments, businesses and industry leaders to share insights, perspectives and learn from innovative players on how to enhance their businesses and profit from IoT.

Background designed by Freepik



The theme of this year's event was "Making \$ense in Our Connected World". The goal of the event was to explore the practical aspect of IoT and how businesses and governments can reap the benefits of IoT by unlocking new business opportunities. IoT Asia 2017 featured over 90 industry experts including Rob Van Kraneburg the founder of the IoT Council in Belgium and Wouter Van Wersch the President and Chief Executive Officer of General Electric ASEAN. The exhibition front focused on two new zones - Cybersecurity and Robotics. The 5, 000 square foot exhibition shone the spotlight on the pavilions of three countries, Singapore, France and the United Kingdom.

The first day of IoT Asia 2017 kick started with a warm welcome from the Organisers, including Oliver Tian the President of the Singapore Industrial Automation Association (SIAA). "With SG\$2.4 billion already allocated for the digitalisation drive in Singapore,





there is huge potential for organisations to transform and futureproof their businesses in times of changing market demands through seizing opportunities offered by technology,” said Mr Tian. He also added that IoT application is a critical catalyst for businesses to boost the nation’s competitiveness. Other highlights of the day also included a presentation called “The Real Internet of Things” which focused on IoT’s ability to deliver real business outcomes by taking businesses to the next level. The informative session also served to challenge common assumptions about IoT and highlight Cisco Jasper’s capabilities. Another interesting talk focused on the SMART enhanced cityscape of the future. The session focused on the emergence of Smart Cities via interconnecting technologies coupled with political enablers. Issues were discussed along with advise on how these challenges can be overcome.

Industry inside views took precedence on the second day of IoT Asia 2017 with sessions delivered by industry leaders. One session focused on simplifying IoT from a real world perspective. The session emphasised that the relationship between partners in the Iot ecosystem is highly significant to bridging the gap between industries and Information Technology. This was a topic that was especially relevant to the security industry due to the current shift from physical to digital in terms of security solutions as well as the significant increase in Cyber attacks which in itself presents many business opportunities.

The security sector was just one of the diverse multitude of industries represented at IoT 2017. One such company was Avnet, a company specialising in surveillencesecurity solutions. “The Internet of Things is transforming the way businesses operate and there is a need for greater interoperability and security protocols to navigate digital complexities,” said Terence Tan, Regional President of Avnet South Asia and Korea. During the event, Avnet featured the latest products from its valued partners including IBM, Trusted Objects, DIGI, Semtech, Amotech and more. The exhibits were divided into five different zones covering Smart Surveillance, Smart Monitoring, Smart Utility, Smart Security and Smart Cognitive IoT. Visitors were treated to demonstrations which left them with a better understanding of the power of integrated platforms. Visitors also learned how to implement cost effective IoT solutions from Avnet’s recent partnership with security expert,Trusted Objects.

Also present at IoT 2017 was Renesas who presented their home security systems such as the Elder Care System and the Secure Door Access which offered visitors a glimpse into the technology available at their fingertips to enhance the security of SMART homes.

The issue of cybersecurity and its importance in current times due to the rise of cyber attacks, was highlighted



at the panel session on IoT Security Landscape and Credible Defences for New Challenges. Industry experts Neville Burdan the General Manager of Dimension Data Singapore and Frank Martins, Head of MCU Strategic Technical Marketing at STMicroelectronics APAC were amongst the panellists who spoke on the state of emerging cyber threats and offered insights on preventative measures and approaches.

The most intriguing highlight of IoT 2017 however, had to be the live chip implant demonstration which was a first ever in the history of local tech events. The “live implant part” featured world renowned Biohacker Hannes Sjoblad who oversaw a specially trained body piercing artist in inserting a Near Field Communications (NFC) chip into a volunteer who was pleased to be one of few internet enhanced human beings in the world today. This fusion of the biological and the digital was truly thought evoking on the evolution of human beings in synchronicity with intelligent machines. It posed questions on the brave new world of trans-humanism and the next frontier of wireless technology.

IoT Asia 2017 certainly fulfilled its objectives on connecting industry leaders with the IT experts in their quest to launch their businesses into the era of all things wireless and also offered much needed insight into the interesting realm of IoT.

IoT Asia 2017 was jointly organised by SIAA and SingEx Exhibitions in partnership with WE Communications. “In the Asia Pacific, there has been a massive growth and adoption of IoT technologies as connected devices begin to transform the way people,businessesand governments operate and we are delighted to be part of an event that brings together technology leaders and emerging disruptors to share industry best practices and knowledge and showcases the latest smart technologies that highlight the potential of IoT, commented Emma Richards the Vice President Regional Technology Lead, APAC. SST

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Milestone Systems

Community Days 2017

The Parisian

Cotai, Macao, China , 28 February – 1 March 2017

Connecting to A World Of Possibilities

Milestone offers a true open platform technology and by joining forces with their alliance partners, continue to inspire development. Andrea Sim reports from Macao, China.

Milestone Systems presented “Community Days 2017” (MIPS 2017) at The Parisian in Cotai, Macao, China over a period of four days. Organised by Milestone Systems, the symposium served to address the crux of the varying scene in the IP surveillance industry as well as showcasing trending technologies to improve the security and surveillance installation in business and infrastructure. This year, MIPS 2017 welcomed about 300 delegates as they witnessed a wide array of products and services for applications in a dynamic range of security and surveillance projects.

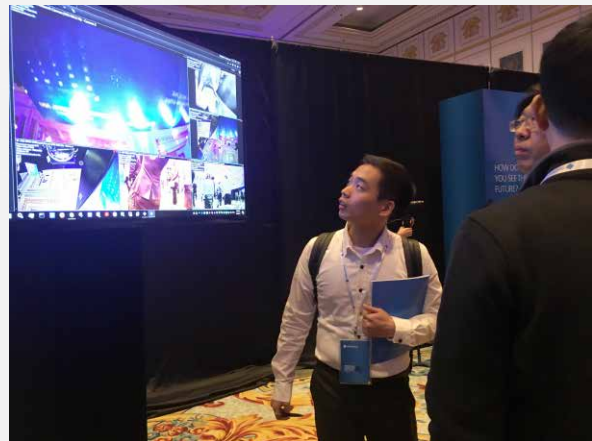
The symposium offered opportunities for Milestone to confer about its significant breakthroughs to customers and members of the partner community through keynote speeches. Twenty-one companies sponsored the event, with Axis Communications, Quantum and Seagate as Platinum Sponsors.

With the theme “Together We Make The World See” at MIPS 2017, it has attracted leading business leaders, CEOs, trade professionals within the security trade industry and others to the lab tours and plenary sessions by keynote speakers from Milestone. Topics focused on leading the industry into the future, creating a platform for the future, Milestone product roadmap and defining the future together.

Following, partners and representatives from Milestone open platform community discussed current challenges and opportunities, industry trends, new insights into new and existing technologies through the Business and Technology Workshop tracks. Exclusive sessions were extended to speakers (by invitation only) to discuss cutting-edge solutions and how using XProtect VMS makes it possible for high security installation, including retail solutions to city surveillance.



“Make The World See” is not just seeing with the eyes, it’s about making the world detect... and see something for the better of the world. It is an unselfish purpose we have here at Milestone – we are opening up the platform, making investments and inviting community partners into the ecosystem to be part of the growth together. With the community, we can do a lot of things and it is a matter of putting the right software and solutions together. - Kenneth Hune Petersen, Chief Sales and Marketing Officer, Denmark office



The XProtect Platform incorporates new functions



About 300 professional delegates gathered at the meeting place for the sector at MIPS 2017

Over the course of four days, Milestone attendees had the opportunity to network, discuss business opportunities, share industry insights on technological trends and best practices in advanced security systems. During the networking session, delegates engaged with leaders of the VMS industry, including industry experts, CEOs and renowned international partners of Milestone to exchange views and further develop partnerships and grow businesses with the Community.

The highlight of this year's edition was the mini expo, which had been redesigned as an innovation lab for visitors to get up close with the products at the five exhibitor zones (21 booths), including Milestone, featuring also Video Analytics, Hardware, Cameras and others.

The Milestone Community Days 2017 concluded with a Gala Dinner and Awards Ceremony.

Day One

Since its operation in 1998, the Danish company, Milestone Systems, has progressed to become one of the world's providers of IP-based video management software and network video recorders for surveillance installations.

Benjamin Low, Vice President Sales for Asia Pacific Region kick-started MIPS 2017 and addressed the importance of the symposium. Low has 20 years of experience in cyber security, IT networking and software. In his role, he drives the Milestone business through a combination of channel partners and security vendors resulting in record sales.



Delegates waited for their turn to go on a guided tour to view the newly designed innovation lab



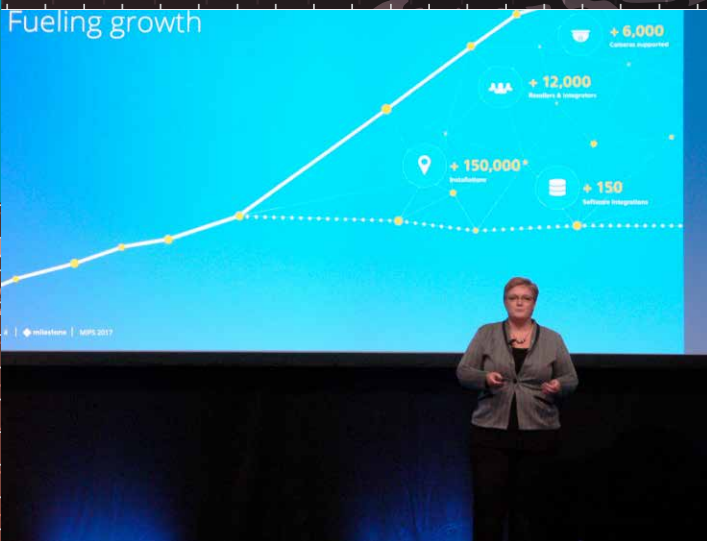
The five area zones in the innovation lab connect Milestone delegates to engage and interact with business vendors



A business vendor from the area zone demonstrated software development capability and access control solution to delegates

◀◀ Delegates mingled with fellow attendees during the breakout session





(L-R): Kirsten Hojland, Vice President of Corporate Marketing; Hans Jorgen Skovgaard, Vice President, R&D and Support were one of the keynote speakers from Milestone during the plenary sessions

Addressing “Leading the Industry into the Future” by Kenneth Hune Petersen, Chief Sales and Marketing Officer, Denmark office, he spoke on Platform Community of Milestone Systems and how it has been staying committed to creating a commercial platform for community growth, facilitating knowledge sharing and successful partnerships, accelerate collective innovations based on insights and combining best breed solutions with an integrated experience. The offerings of a true open platform technology will help create a better future with successful partners who are vital in building strong future-proof business solutions to reduce risks and fraud involved in retail, to use analytics to detect and monitor the servers, including access control to keep the right people in and out at all times.

After the lunch break, MIPS attendees adjourned to the Milestone Community Innovation Lab. Delegates could view and source for products and solutions, from hardware and Milestone XProtect for basic to large surveillance solution. The later part of the evening ended with a networking session with the Partner Community.

Day Two

The morning session on day two started with a talk on “Defining The Future Together” by Benjamin Low, VP of APAC.

“Some of my customers have shared with me that their consumers already had cameras and recorders installed, and there was nothing more they could sell to them,” Low elaborated that “The awareness about using surveillance here is perhaps still at its infancy stage. There are a lot more capabilities and upgrading opportunities around. We conducted a survey in Singapore recently on our customers who are using Milestone surveillance and how they think of our products. Six of 100 communities who we surveyed, intended for an upgrade to enhance the existing capability of what they have.

“We found out in the survey that there are a lot of customers out there who are only using surveillance as a basic security. But there are so much more that they would like to do. It is our job as a Partner Community to do more seminars, to provide training and create that awareness on adopting video surveillance as a business enabler rather than justifying the costs.” According to the survey, “we see Milestone is poised for growth in many markets. We want to drive the message across to continue developing the markets, so we need to articulate the message in a simple and clear way that every company can understand and appreciate our business solutions,” said Low. “It’s about us bringing in the different solutions partners, and being part of the Milestone Community, our members go into each of the vertical and solve the problems that vertical is facing.”

Currently, the partners of the Open Platform Community include Agent Video Intelligence, AllGoVision technologies, Allied Telesis, Axis Communications, Bosch, Canon, Cudo Communication, Dahua Technology, Dell EMC, IBM, iCetana, Ipsotek, NEC Corporation, Oncam, P2, Promise Technology, Quantum, Seagate, SecuRex Solution Limited, Spectra Logic, Snap FMx and VIVAVO.



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To culminate the evening, the Awards Ceremony was held together with the Gala to recognise the winners of the various categories:

- Best Milestone Camera Partner APAC 2016: Axis Communications
- Best Milestone Solution Partner 2016: Quantum Corporation
- Best Milestone Solution Partner (New Projects) APAC 2016: IBM
- Best Milestone Solution Partner (Video Analytics) South Asia 2016: Ipsotek Ltd
- Best Milestone Solution Partner (Video Analytics) North Asia 2016: Agent Video Intelligence

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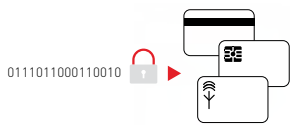


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