

Security Solutions Today

November / December 2015



EDUCATIONAL & INSTITUTIONAL SECURITY

Cover Focus Smart ID Cards For Education: Securing And Enabling Campus Operations

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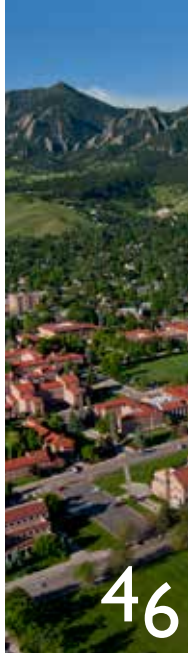
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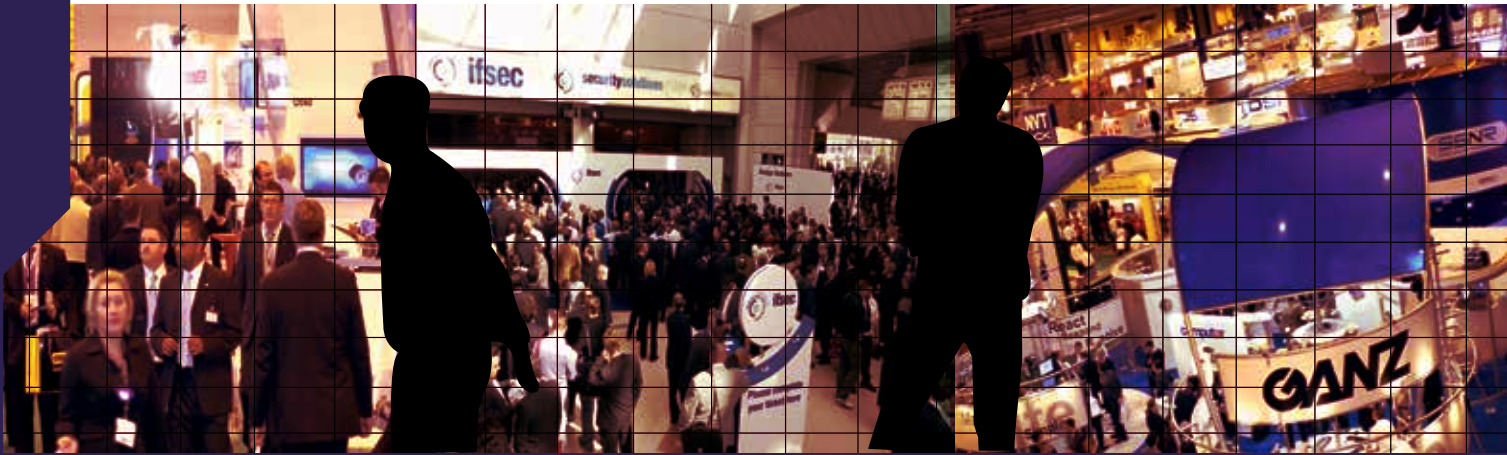


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Contact: Andreas Rex
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Email: andreas.rex@uaemessefrankfurt.com
Website: www.intersecexpo.com

ISC West 2016

Date: 6th to 8th April 2016
Venue: Sands Expo Centre, Las Vegas
Organiser: Reed Exhibitions
Contact person: Kelly Miller
Tel: (203) 840 5559
Email: kmiller@reedexpo.com
Website: www.iscwest.com

Cards & Payments Asia 2016

Date: 20th to 21st April 2016
Venue: Suntec Singapore Convention and Exhibition Centre
Organiser: Terrapinn Pte Ltd
Contact person: Bess Delarosa
Tel: +65 6322 2734
Email: bess.delarosa@terrapinn.com
Website: <http://www.terrapinn.com/exhibition/cards-asia/>

IFSEC International 2016

Date: 21st to 23rd June 2016
Venue: ExCel London One Western Gateway, Royal Victoria Dock
Organiser: UBM EMEA
Contact: Gerry Dunphy
Tel: +44 (0) 207 921 8063
Email: gerry.dunphy@ubm.com
Website: www.excel-london.co.uk

Secutech Vietnam 2016

Date: 18th to 20th August 2016
Venue: Saigon Exhibition & Convention Centre (SECC)
Organiser: Messe Frankfurt New Era Business Media Ltd
Contact person: Eva Tsai & Echo Lin
Tel: (886) 2 2659 9080
Email: stvn@newera.messefrankfurt.com
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The PKT-23 provides up to 8 channels, allowing you to assign channels to specific team members. The Voice Guide alerts you when you change channels.



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Blinking LED lights in 3 colours indicate the PKT-23's transmission status and low battery status.



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Built-in VOX allows hand free operation which automatically starts transmission in response to your voice when using an external microphone.

Equipped with Micro USB terminal

The standard micro USB port means a smart phone charger can also be used to charge the PKT-23.



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Editor's Note

Hello wonderful readers of Security Solutions Today!

Here we are, at the final issue of SST for the year. 2015 has indeed been an enthralling journey and a learning passage for myself. As we ready ourselves to bid the year goodbye and welcome in new resolutions for 2016, I present to you a familiar read to SST's latest November/December issue.

We pay a visit to a variety of educational grounds and learn how security is being handled to make school campuses and surroundings safe for students as well as its employees. We take a look at Zebra Technologies' access control solution and how they have penned out the best ways in making access at critical points of a school more secured.

Our November/December's 'Security Feature' section is built on insightful articles about asset management control by Morse Watchmans and Dahua Technology's display and control solution. In this issue, we will also include a special cyber security feature by Darktrace, sharing with us their new and innovative solution to prevent cyber crimes from escalating.

Join me in broadening our campus security knowledge with Genetec's holistic approach to secure school grounds. In addition, gracing our 'In Focus' section is Mr Richard Dobrow, Director of Cyber Security, Products from BAE Systems Applied Intelligence.

After countless of school campus mishaps and hazards that have occurred of late, the educational world has altered and tightened its security solutions to a much higher level. School managements are busy upping the security tiers in every area that poses dangers to ensure as many risks as possible are lessened.

With this, I conclude SST's final issue for 2015. Here's wishing all of you a Happy New Year in advanced and looking forward to presenting you guys with SST's 2016 spread.

I wish you all an insightful read!

Cheers,

Ain Ebrahim



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*Photo courtesy of VSL Infrastructure Protection, Installer



Altronix To Showcase Innovative LINQ Communication Technology At ASIS 2015

Altronix continues to lead the industry in power and transmission technologies with release of the company's innovative LINQ Communication Technologies. LINQ provides remote IP access to real-time data by monitoring power and devices to keep systems up and running at optimal levels.

LINQ is simple and easy to implement and works with both Altronix and other manufacturer's IP and analog products. It facilitates monitoring to minimise system downtime and eliminate unnecessary service calls, which helps reduce Total Cost of Ownership (TCO). LINQ integrates seamlessly with IP surveillance and access control at single or multiple sites, making it ideal for multi-tenant, multi-user environments.

All LINQ enabled devices can be easily accessed for real-time status monitoring. When a condition is detected, LINQ will report via email or Simple Network Management Protocol (SNMP) to designated parties. All events are stored in a detailed event log on a product-by-product basis.

Application Program Interfaces (API) are available to integrate the LINQ Dashboard Central Management Software with partnered systems solutions. This enables VMS and access control platforms to be easily integrated with LINQ enabled devices onto a single platform for comprehensive system control, monitoring and diagnostics.

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

CEM Launches New Technology For Moisture/Solids Analysis

CEM Corporation to introduce the all-new SMART 6 Moisture/Solids Analyser. The SMART 6 features two major innovations - the ability to accurately analyse both wet and dry samples and a significant reduction in sample drying times. These benefits are possible through the development of iPower technology, which features a patented multi-frequency energy source for sample drying. As added benefits, the SMART 6 features a state of the art touchscreen software package with complete statistical analysis and optional IP65 compatibility.

"The world of moisture and solids analysis will never be the same again. A disruptive new technology called iPower has changed the game forever," commented Michael J. Collins, President and CEO of CEM Corporation. "We proudly introduce the new SMART 6, the first system to accurately measure the moisture, solids, or volatile content of any product faster than any other direct analyser on the market."

The revolutionary iPower technology employs lower frequency energy to quickly remove free moisture and penetrate the sample for fast and efficient heating, while higher frequency energy helps create a uniform heating environment to fully remove bound moisture or non-polar solvents. As a result, iPower creates an analysis with unparalleled speed and precision.

One Touch Methods further simplify the user experience by offering a library of optimised CEM methods along with breakthrough new iDri technology. iDri is an advanced analysis that can further reduce test times with results in as few as 60 seconds, less than half of the previously possible test times using other direct analysis technologies.

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



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Dahua Delivers An Elite Security Solution For A Luxury Hotel In Italy

The Villa d'Este has been nestled in Cernobbio for almost 150 years. It was built in 1568 as a private residence and was transformed into a hotel in 1873. For years, many international awards have been bestowed upon Villa d'Este as the most wonderful hotel in the world.

Dahua, in conjunction with Videotrend, was paid the highest compliment as it was asked to secure this spectacular venue. The challenge was to set up a highly professional video surveillance system with the specialist installer Emit di Lecco for its property protection, while ensuring the most absolute privacy for the celebrity guests. The security system exerts strict monitoring for the entrances, parking lots and other outdoor areas to greatly eliminate possible unsafe factors. In total, the hotel has installed 75 units comprising of different camera types from the Dahua Eco Savvy 2.0 series.

Dahua's latest 2.0 series features a 4-Megapixel progressive-scan CMOS, which delivers high quality images at 20fps. The end results in an image twice as clear as a traditional 1080p camera. Eco-savvy 2.0 also boasts Wide Dynamic Range image enhancement technology, triple video streams, and Intelligent Video Surveillance (IVS). The WDR (120dB) ensures the camera offer impressively high performance in scenes that are backlit as well as those situated in dark areas, which can be traditionally challenging for surveillance cameras.


Majority of the cameras are installed mainly in the primary areas of monitoring. The camera is equipped with CMOS progressive scan sensor, featuring the 4MP resolution, which provides high quality images at 20fps. In addition to these cameras, Dahua also upgrades the NVRs for the hotel. It supports a maximum of 128 channels IP cameras input with 1080P real-time live view.

Moreover, the hotel has simultaneously installed Dahua VDP system for the interior of the villas. Dahua's video door phone is specially designed for the modern intelligent Villa, featuring outdoor visual intercom, face recognition access control, card unlock, indoor monitor unlock and camera surveillance.

"We delivered the most advanced product series to secure Ville d'Este. Dahua's products offer a great advantage for high definition viewing, which enables users to see details of the scenes and ensures safety as well," said Elmer Zhang, Sales Director of Europe at Dahua Technology." The proper use of our products in Ville d'Este has proven



to be a success, which we hope will encourage a growth in recognition of our products allowing us to serve more customers in future."

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

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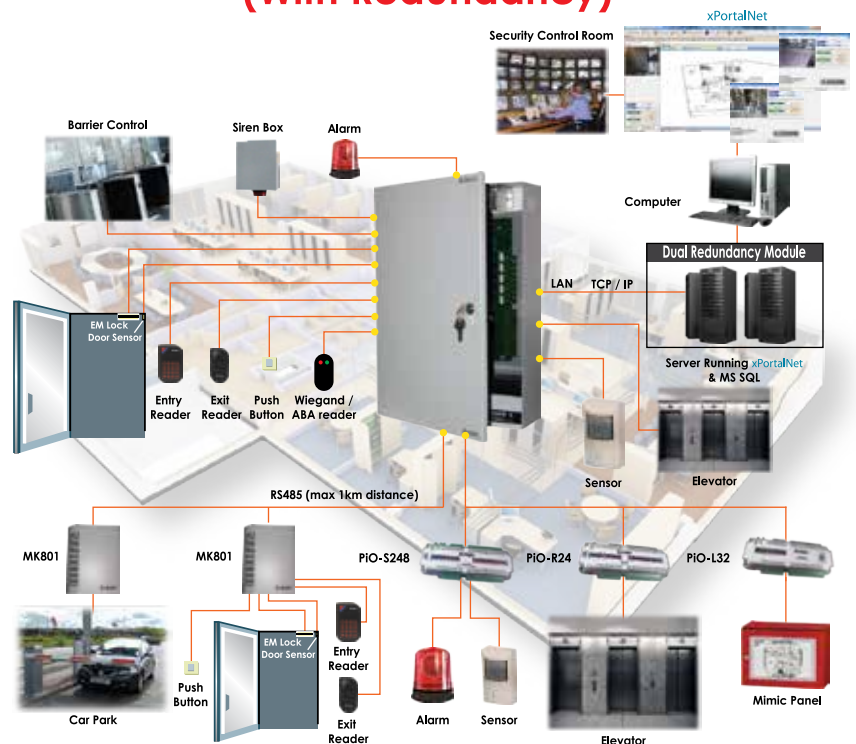
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Our Office





The New Dallmeier Nightline IR Camera

The DF5200HD-DN/IR Nightline has been developed with special attention to difficult light and environmental conditions for 24-hour video surveillance. By using the most advanced sensor and encoder technology, the DF5200HD-DN/IR sets new standards in camera technology.

It provides recordings with excellent contrast, brilliant clarity as well as highest detail resolution and colour fidelity, even in low light conditions. The extremely high light sensitivity of the sensor and the sophisticated image processing ensure crisp colour images even in the dark. In night mode, the camera also provides outstanding results due to the excellent infrared sensitivity and the integrated IR illumination.

The camera is equipped with an ambient light sensor and a removable IR cut filter and can automatically switch between day and night modes. In addition, different day and night presets for the exposure settings can be defined and adjusted.

The DF5200HD-DN/IR has an integrated adaptive IR illumination provided by semi-covered 850nm high power LEDs. The new IR hood, which is already included in

delivery, absorbs unwanted IR stray light and thus increases image quality in IR night mode.

The camera has a high-quality motor-driven megapixel vari-focal lens that is perfectly tuned to the image sensor. The adjustment of zoom, focus and iris is made conveniently using a web browser. The manual lens setting directly at the installation site of the camera is not required.

Built into an IP66-rated weatherproof enclosure, the camera is designed for both indoor and for outdoor applications. The camera is operated via Power over Ethernet (PoE Class 0, IEEE 802.3af), which allows for an easy, quick and cost-effective cabling and commissioning.

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



GJD Is Pleased To Announce Attendance At The Rochdale Online Business Exhibition

GJD, an award winning British manufacturer of intruder detection products and security lighting solutions for the CCTV and security sectors has announced its attendance at the Rochdale annual business exhibition. The event took place at Rochdale Town Hall from 4pm until 7pm on the 23rd of September.

Neil Hennessy, GJD's Technical Sales Manager was on hand to discuss the versatile benefits of the company's detectors and illuminators. Hennessy commented: "The Rochdale Online annual business event is a fantastic opportunity to meet local businesses owners and the general public from across Rochdale, Heywood and Middleton."

GJD showcased market leading perimeter surveillance technologies including the company's external D-TECT range of wired and wireless detectors. Offering the

very latest quad and dual PIR technology, advanced IP solutions and anti-masking detectors, the D-TECT range can be relied upon for the most demanding security situations.

Latest additions to the D-TECT range include 4 new IP detectors, which offer seamless integration with major VMS providers and CCTV systems. Bosch VMS, Milestone Xprotect, Mirasys, SeeTec Enterprise and Probox are to name a few of the supported VMS software providers. Supported cameras for direct control include Axis, Bosch, Ernitec, Hikvision and Sony. Others will soon be added.

Other state-of-the-art products being showcased, it included the company's Clarius LED illuminators. Available in Infrared and White-Light, Clarius units are specifically designed to work in conjunction with CCTV cameras and safety-critical applications to significantly enhance image quality.

For more information, please visit: www.gjd.co.uk **SST**



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Hikvision IP CCTV System Secures Ghana's International Airport

Hikvision have recently completed the installation of an IP CCTV surveillance network for Aviance Ghana Ltd at Kotoka International Airport. A total of thirteen cameras now maintain close scrutiny of the 650-hectare site and protect passengers, aircraft and cargo.

Haim Atanelov, General Manager at Skylinks Technical Services Ltd says, "We were challenged to deliver high resolution images at all times and in all lighting conditions. It is these pressures that helped us in choosing Hikvision components, with their robust build quality, excellent video quality, and quick and simple installation and operation due to the user-friendly software. It also helped that the products offer very competitive prices and are accompanied by after-sales service and technical support from a first-class team."

Atanelov continues, "Aviance is especially pleased with the smooth integration of the Hikvision IP system with the access control system at the 4 passenger gates, something which was also carefully noted by the EU ACC3 validators. Aviance was also pleased with the integration of the new system with the existing analog CCTV system, although it did show up the difference in video quality immediately. We have already agreed to add further IP cameras to the site and Aviance is committed to phasing out the old system in favour of a totally Hikvision IP system as soon as possible."

Four types of IP camera were installed at the Airport connected to a 32-channel, RAID 5 NVR over an entirely new Gigabit network infrastructure. All the cameras feature the true day/night capability



of Hikvision's EXIR infrared technology. This guarantees that they always deliver clear images, even in the warehouses where lighting conditions are not good. Both the 1.3MP and 3MP bullet cameras employed in the warehouses boast an exceptional 50 metre IR range while the 30 metre EXIR range of the mini dome cameras deployed in the terminal building is also especially valuable during night time hours when the building lighting is partially shut down.

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



Milestone CEO Publishes 'Business Magnetism' Book



The CEO and President of Milestone Systems has just published 'Business Magnetism – The Power of Partnership'. In the book he reveals the keys to Milestone's entrepreneurial success using open platform technology as an

innovation enabler, and he describes the importance of developing an international partner ecosystem as a force multiplier.

When co-founders John Blem and Henrik Friberg Jacobsen established the business, they saw an opportunity for software that could monitor, record and retrieve video images in digital format. This was a paradigm shift from the analog world of CCTV.

Lars Thinggaard came on board in 2003 as Milestone's President and CEO, bringing with him an experienced entrepreneurial background and distinct spirit of open-style Scandinavian leadership, which has guided the company to the top of its market.

'Business Magnetism' is about uniting a fragmented industry around a unique vision. It is about the leadership required to bring together a multi-national business ecosystem,

and the courage needed to adapt and change in the face of turbulent global economies. It is about looking to the future, learning from the past, and being open to new ideas. This book is the story of a small, ambitious business flourishing at the start of the 21st century through leadership, openness, and partnership.

During Lars Thinggaard's first decade as CEO, Milestone Systems' revenue increased more than ten-fold. Today, Milestone is a global leader in the video management software industry, acquired by the Fortune 500 concern Canon in June of 2014. He states: "My career has been dedicated to the importance of leadership, and I am always looking for refreshing and novel approaches. 'Business Magnetism' describes the drive and flexibility needed to lead a company that is innovative and independent."

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

Quantum Secure Sponsors High Tech Lab At Capital Technology University

Quantum Secure, part of HID Global, announced their sponsorship of the identity, Credentialing and Access Management (ICAM) Laboratory at Washington D.C.'s Capital Technology University. As an industry technology partner to the school's Critical Infrastructures and Cyber Protection Centre (CICPC), Quantum Secure's pioneering predictive analysis solutions and physical identity and access management (PIAM) SAFE solutions are installed throughout the lab for learning and research purposes as well as being a core segment of the lab curriculum.

The ICAM Lab offers intensive hands-on experience to develop the academic knowledge and professional skills that will enable students to advance their employment opportunities within the field of Physical Security,

Information Assurance, Business and Acquisition Management. Courses for accreditation are offered at both the undergraduate and graduate degree levels and students working in the ICAM Lab will complete all core curricular graduation requirements. Courses for BICSI (Building Industry Consulting Service International) and ESA (Electronic Security Industry Association) accreditation are also offered.

The ICAM Lab also serves as a demonstration and career awareness outreach program for high school and middle school students and offers internships for students from the Charles Herbert Flowers High School to conduct research activities.

The establishment of the ICAM Lab follows the tenets of the

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Federal Identity, Credentialing and Access Management construct as well as industry adopted identity and access management (IAM) standards and guidelines.

With its SAFE Predictive Security Software, the latest addition to its SAFE Security Intelligence Portfolio, Quantum Secure continues to set new benchmarks in predictive analysis solutions and PIAM solutions. The SAFE product line analyses identity and security data and applies both operational and risk-based analytics to provide a clear understanding of security operations and risks. To further support analysis, SAFE Predictive Security includes automated, actionable responses, which can help reduce costs, reduce insider threat and

enhance compliance.

Quantum Secure's SAFE Security Intelligence Portfolio provides web-based solutions that detail an executive-level, graphical dashboard view of a global physical security infrastructure. In addition to SAFE Predictive Security, the portfolio also includes SAFE Security Reporter 5.0, which provides real-time monitoring and event correlation of physical security activities and a custom report creation wizard.

For more information, please visit:
<https://www.captechu.edu/community-partnerships/icam-lab> SST

Pelco By Schneider Electric Hosts Fourteenth Annual September 11th Memorial Ceremony

Pelco by Schneider Electric hosted guests and the public in commemoration of the Fourteenth Anniversary of September 11, 2001, and to celebrate the lives of the fallen heroes from that day. Following the devastating events in 2001, a permanent monument was built at the Pelco by Schneider Electric Clovis Campus and has been recognised as the California Memorial for more than a decade. The silent ceremony included a wreath procession, a piped rendition of "Amazing Grace" and a twenty-one-gun salute.

"The September 11th Memorial Ceremony is a proud Pelco tradition," said Herve Fages, Pelco by Schneider Electric Senior Vice President. "We thank our local agencies who come together to recognise the many heroic sacrifices that were made on this day fourteen years ago. I speak not only for Pelco and the Central Valley, but also for the entire nation when I say that the first responders and fallen heroes of September 11 will always be in our hearts. Their actions, strength, courage, compassion and patriotism have inspired our nation, and indeed the entire world."

Honoured guest, Andy Isolano, former FDNY firefighter and survivor delivered a heartfelt and emotional tribute. "Our lives were forever changed by the devastating events of September 11th. It was with the determination of our service men and women and our first responders that we saw examples of courage and honour that have truly changed our lives."

Other honoured guests included the Combine Command Military Honour Guard and numerous first responders from the local area.

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





Artesyn Announces SharpStreamer Mini Add-On Acceleration Card

Artesyn Embedded Technologies announced the SharpStreamer Mini add-on card, which brings the benefits of accelerated high density video transcoding and multiscreen delivery enjoyed by content owners, broadcasters and service provider networks to smaller single instance OTT appliance deployments, network DVR applications, video on demand hospitality servers, video surveillance security systems and streaming education servers.

With a focus on AVC encoding, decoding and transcoding, which is a typical requirement in these installations, the SharpStreamer Mini offers quick and scalable integration with widely-deployed 1U standard server architectures to meet the demands of system integrators, equipment and service providers who want to use existing low profile servers and cloud infrastructure to support new video processing platforms.

Featuring one of two 5th generation Intel Core™ i7 processors, based on the Broadwell microarchitecture, Intel HD Graphics 6000, the SharpStreamer Mini card offers a significant performance boost in a standard half-length



PCI Express form factor for compatibility with a wide-range of industry-standard 1U servers.

The SharpStreamer Mini is equipped with a software development kit comprised of the Intel Media Server Studio with Intel HD Graphics' hardware acceleration, monitoring and processor subsystem operating system and management tools for easy integration with server host processing environments. It is also available with optional multiscreen video transcoding application software and is compatible with a wide range of Artesyn's ISV ecosystem partner solutions.

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

Irrecoverable Mosaics In Hatay Archaeology Museum In Turkey Henceforth Secured By Bosch

An extensive Bosch security solution protects the famous Roman and Byzantine mosaics and other antique art treasures in the Hatay Archaeology museum in Antakya, Turkey. The museum's perimeters as well as exhibits are now secured. Entry and exit points are monitored at the same time. Further requirements were: early and reliable fire detection with high false alarm immunity and fast evacuation of the site in case of emergencies.

To secure visitors, employees as well as the exhibits of the Hatay museum, local Bosch partner Ateksis developed and installed a networked safety solution based on Bosch's

Modular Fire Panel 5000 Series and the PLENA voice evacuation system. The fire panel has eight loops with almost 800 detectors and 83 manual call points. Close to 500 loudspeakers make sure that the highly intelligible evacuation messages can be heard throughout the museum's premises.

With more than 8, 000 installed systems worldwide, PLENA Voice Alarm is the number one solution for public address and voice alarm systems in small to medium size applications. The video surveillance system consists of 175 DINION IP day and night cameras. Fortunately due to ONVIF conformance and the Bosch Integration Partner

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Program (IPP), these IP cameras could be easily integrated into the existing third party video management system. Seven AMC2 Access Controllers and 53 card readers from Bosch controls access to non-public areas, while more than 150 motion detectors and 70 curtain detectors secure the exhibits against theft and vandalism.

The entire safety and security system is modular by design and can thus be easily expanded as the need arises. Based on open standards, it can be operated very efficiently and is easily maintained.

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



Trend Micro Survey Highlights Organisational Challenges As Main Inhibitors For Effective Security Implementation In Singapore

Overall security awareness amongst employees (22 per cent), budget allocation (16 per cent), lack of security talent (15 per cent) and misalignment between IT and security departments (15 per cent) are cited as the biggest challenges faced by security professionals in Singapore when it comes to effectively implementing security measures and protocols. As a result, only 17 per cent of the respondents expressed confidence that their organisations were very prepared to handle a targeted attack – a major concern considering how the frequency and intensity of attacks have escalated over the past few years.

The survey was commissioned and conducted by Trend Micro, the global cloud security leader with over 400 Singapore-based security professionals from an assortment of industries including technology, finance, and manufacturing during the recently-concluded CLOUDSEC, the leading internet security conference in Singapore.

The findings also showed that trends like the proliferation of mobile devices in the workplace (31 per cent) and collaborative, cloud-based work processes (24 per cent) are contributing to sleepless nights had by security professionals over data loss (22 per cent) and targeted attacks against their organisations (16 per cent).

“The results clearly show that security needs to be a business imperative rather than a mere technological problem. For a security strategy to demonstrate value, all parts of the business need to be aligned, thus making security a boardroom-level issue, instead of a technical one delegated to the CTO or the CIO,” said David Siah, Country Manager, Singapore, Trend Micro. “As technology is now a core element of most day-to-day operations of a given business entity, security needs to be understood and practised across all lines of business.”

In an era where the cost of a data breach is now valued at \$3.8 million, it is no wonder that risks associated with data security (48 per cent) and data privacy (29 per cent) are the biggest red flags for security professionals. The survey also found compliance (21 per cent) to be another staggering concern about working in the cloud.

Given today’s precarious security landscape, organisations need to address the issues cited above with urgency. The process of digital transformation – which many companies are seeking to undergo today – is an opportunity to address security issues via a holistic approach, and subsequently integrate security as part of the organisational DNA.

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



VIVOTEK Launches New V-Pro Lite Series Network Cameras

VIVOTEK has unveiled its new V-Pro Lite series, a line-up of 2-Megapixel and 5-Megapixel network cameras at an economical price-point but equipped with high-value features, such as WDR, 3DNR, seamless recording, vandal-proof casing, and protection from extreme temperatures (from -50 degrees to 50 degrees Celsius). The 20 new V-Pro Lite Series network cameras, available in bullet and dome types with fixed focus and remote focus installation, usher in a new phase of video surveillance.

The 10 2-Megapixel network cameras in the new V-Pro Lite series are equipped WDR and Supreme Night Visibility (SNV) technology, which provide high quality images under any lighting conditions. Thanks to its in-built IR illuminators, effective up to 30 metres, these cameras offer unstoppable day and night protection. To offer more flexibility and greater interoperability with external devices, these new V-Pro Lite series 2-Megapixel network cameras are also expandable via digital input and output.

The 10 5-Megapixel V-Pro Lite series network cameras present a detailed resolution sensor, providing ground breaking clarity compared to other economical solutions. Endowed with powerful 3DNR (3-Dimensional Noise Reduction) technology and Smart Stream Technology, these professional but affordable cameras can optimise resolutions for a desired object or area to maximise the efficiency of bandwidth usage.

To ensure continuous monitoring, the new network cameras also adopt VIVOTEK's seamless recording system, which allows video to be automatically recorded to the camera's on-board storage when an accidental disruption or degradation of network service occurs. Moreover, they



are capable of transmitting 4 simultaneous streams at different resolutions to different devices at any one time. For harsh operating environments, several specific V-Pro Lite series models are armed with weather-proof IP66-rated and vandal-proof IK10-rated housing to withstand extreme temperatures ranges from -50 degree Celsius to 50 degree Celsius.

Finally, these economic cameras become even richer in functionality simply by fully integrating with VIVOTEK's free central management software –VAST. As users of the new series will discover, the new V-Pro Lite series network cameras are destined to become the driving force of new business.

For more information, please visit:
www.vivotek.com **EST**

Wuxi LerTech Technology's New Magnetic Image Scanning Sensor With Serial Output Interface

Wuxi LerTech Technology Co. Ltd announced the introduction of a new type magnetic image-scanning sensor (model: LTM-XM-336N-0.5-AS), which is an upgraded version of its first-generation magnetic image-scanning sensor introduced in August 2014. With the serial output interface, the processed analog output signal can be directly provided to user's A/D chip modules.

In order to better identify counterfeit currency and other negotiable documents, the use of advanced magnetic coding is a recent innovation necessitated by the increasingly sophisticated methodologies available to compromise optically based scanning systems. Therefore, the signature of additional magnetic information encoded in currencies of many countries can be used to distinguish valid currency from counterfeit copies. This use of magnetic encoding was

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coupled with the development of high-density and high sensitivity magnetic pattern recognition sensors.

LerTech's magnetic image scanning sensor, combines the highest SNR magnetic chips, featuring wide gap characteristics, and high output, ensuring the reliable detection of varieties of strong and weak magnetic encoded information in many currencies. The multi-channel line-up includes a typical channel resolution of 50 dpi (available in higher resolution) and line resolution of 200 dpi (can be specifically designed between 50 dpi and 600 dpi range). The effective scanning width can be up to 180mm with the physical size of 193mm x 16mm x 40mm, suitable for the whole image scanning for many currencies.

Dr. Jianmin Bai, who is in charge of LerTech's research and product development division, pointed out that, "Different from the traditional gradient magnetic field detection methodology limited at low resolution, LerTech applies the total new design featuring absolute magnetic field detection in our magnetic imaging sensor products allowing real magnetic image to be detected. The ability to develop high resolution magnetic imaging sensors with this unique design promises to accelerate the use of



magnetically encoded information in a variety of currencies and other negotiable documents."

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

Gemalto Launches Cinterion Secure Element For Advanced Protection Of Automotive And Industrial IoT Solutions

Gemalto is introducing the *Cinterion Secure Element*; a tamper-resistant component embedded in industrial Internet of Things (IoT) solutions to enable advanced digital security and lifecycle management. The security framework, named *Secure Element*, serves as the foundation of trust of building the IoT security architecture. This is crucial for long-lived industrial solutions such as connected cars and smart metres that need protection against evolving threats while remaining flexible to accommodate enhanced functionalities and services.

Leading edge automakers have already begun integrating Gemalto's *Cinterion Secure Element* in advanced security architecture by design. The *Cinterion Secure Element* meets extreme environmental and

longevity requirements from the automotive industry and benefits from smart card level security. This ensures that data is stored in a safe place and access is granted only to authorised applications and people helping to guard against digital and physical attacks.

In addition, Gemalto's new component enables secure over-the-air management of security credentials as well as software updates across the lifecycle of solutions. The *Secure Element* offers an added layer of protection for a variety of applications and represents a powerful key to help secure the entire IoT ecosystem.

"The growing reliance on IoT solutions and high profile cyber-attacks are focusing industry minds on the necessity of security technology

for continued growth," said Robin Duke-Woolley, CEO at leading technology analyst firm Beecham Research. "Security at this level does not work as an afterthought. It must be incorporated from the ground up at the start of new development projects. The *Cinterion Secure Element* provides for this, combining flexibility with high levels of security."

"Gemalto's Security by Design approach and suite of M2M optimised solutions - including the *Secure Element* - provide end-to-end protection from the edge to the core," said Laetitia Jay, Vice President of M2M Solutions and Services at Gemalto. "Security and trust among all types of connected objects such as cars, traffic lights or intelligent road systems, will enable a whole realm of innovations in the IoT ecosystem." SST

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Huawei, Vogue China And Fornasetti Collaborates On Special Edition Watch

Huawei Consumer Business Group (BG) today unveils its first special edition watch, styled by renowned Italian designer Barnaba Fornasetti for guests of the Vogue China tenth anniversary celebrations. This gift represents collaboration between Huawei, Vogue China and Fornasetti that seamlessly marries art, design and modern technology.

The Fornasetti-designed watch allows users to stay connected wherever they are, with notifications for calls, texts, instant messages and emails.

The special edition watch will only be available as gifts to guests of the Vogue China tenth anniversary party, sponsored by Huawei, which marks the closure of Milan Fashion Week.

To coincide with the unveiling of the Fornasetti for Vogue China watch, Huawei is launching a 'Design Powered By Huawei' platform for designers and artists to submit their creations via a website.

Crafted using sophisticated materials, all editions of the Huawei watch feature a fully circular 1.4 inch touch-sensitive AMOLED display, coated in scratch-resistant sapphire crystal glass (the favoured choice amongst Swiss watch manufacturers) and a cold-forged stainless steel frame.

The watch face is made of scratch-resistant sapphire crystal and measures 42mm in diameter, which is the traditional dimension for wristwatches.

Capable of downloading music for offline playback, and with Bluetooth connectivity for wireless headphones, it's the perfect running companion. A heart rate sensor accurately measures heart rates, and the 6-Axis motion sensor can track activities including walking, running and stair climbing.

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

AXIS Q61-E Network Camera Series Wins Prestigious Good Design Award 2015

Axis Communications has been honored with the prestigious Good Design Award for its AXIS Q61-E PTZ Dome Network Camera Series. The Good Design Award from the Japanese Institute of Design Promotion is a mark of excellence and gives recognition to innovative product design.

The AXIS Q61-E Series features a unique design concept. To better blend in with their environment when mounted, the cameras are easily re-paintable and 45 percent smaller than previous generations. Their unique dome geometry enables operators to identify objects above the camera horizon and the Speed Dry function causes the cameras to vibrate thereby effectively shaking off water drops in rainy weather.

"With the AXIS Q61-E Series we have broken with conventional designs and introduced an entirely new dome geometry offering effective video surveillance of objects located above the camera horizon," says Erik Frännlid, Director of Product Management, Axis Communications. "We also took a look at nature and a dog shaking off water inspired our



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Speed Dry function that quickly removes water drops from the dome glass. This prestigious design award win underlines our commitment to continuously innovate as we strive to provide our customers with smarter solutions.”

The AXIS Q61-E Series features 30x optical zoom with up to HDTV 1080p resolution, Lightfinder technology and Wide Dynamic Range to handle difficult lighting conditions and electronic image stabilisation for smoother video in windy conditions. A slanted camera design deflects water drops and a non-stick heated silicone ring prevents ice formation to ensure reliable operation in all weather conditions. The AXIS Q61-E Series cameras withstand extreme climate changes thanks to Arctic Temperature Control that allows the cameras to function at -50 degree Celsius. In addition, the cameras support automatic defog, which, when activated, automatically detects fog in the scene and digitally filters it out of view to provide clearer video.



The AXIS Q61-E Series was also awarded with the SSA Award 2015 in the category CCTV at the Safety and Security Show last week in Amsterdam, the Netherlands, due to its innovative way to manage different lighting conditions as well as challenging weather conditions.

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

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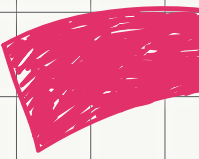
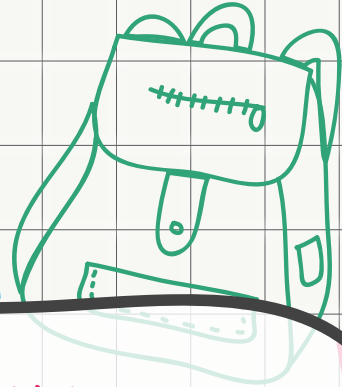
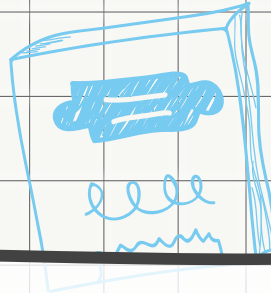
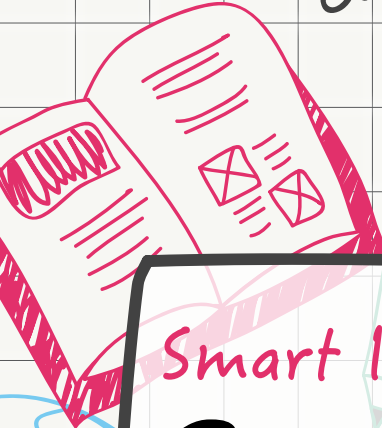


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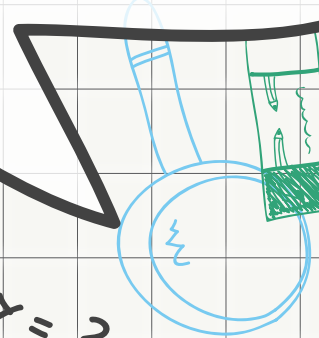
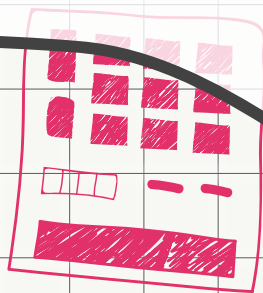
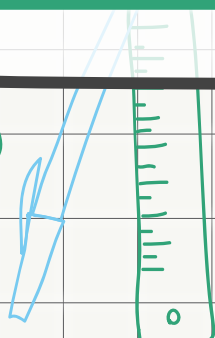
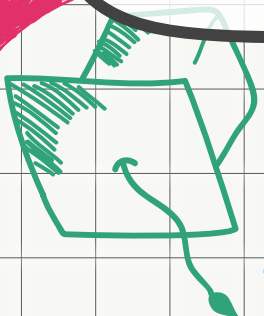
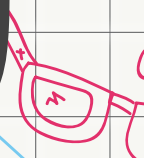
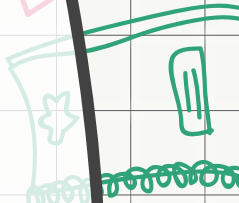
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Smart ID Cards For Education:

Securing And Enabling Campus Operations

From a Zebra Technologies Article



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**Article Attributed to Ryan Goh, VP and GM,
Zebra Technologies Asia Pacific**



Introduction

From universities to primary schools, a revolution in technology is taking shape. The days when mundane tasks such as registration, book purchases, and meal programs required an army of administrators to manage piles of paperwork is but a digital page in today's history of e-books. 21st Century innovation is bringing automation – and a chance to improve security – to the campus.

With education costs skyrocketing, departments of all levels are looking for ways to do more with less – trimming expenses while maximising staff productivity. Add the looming threats to campus security, and educators must make decisions that balance quality of education with protecting our students. In fact, the 2011 Campus Safety magazine's "How Safe Is Your Campus?" report revealed that 52 per cent of faculty said their institutions fail to dedicate sufficient resources to campus safety and security.

The simple answer relies on the same technology that corporations use – secure smart ID cards. Embedded with "smart" features such as radio frequency identification (RFID) and tamper-resistant laminates, education campuses can realise a wide range of benefits, from

tightening security, to streamlining admission, to improving paid services.

Education is ready for the smart card revolution

Educators at all levels are seeking ways to leverage technology to improve the quality of learning, simplify administrative tasks, and protect students. However, leaner budgets, growing number of students and rising costs per-student mean that schools must improve efficiency. Answering the challenging demands innovative solutions that can automate facility and class access, improve campus security and streamline campus services such as meal and library programs.

In many ways, schools have been slow to adopt technologies commonly used in the private business sector to streamline operations. Student

admission is still a manual, time-consuming process at the majority of primary education campuses. Institutions of higher education campuses have adopted online admissions and class registration, but students still must stop by the main office and stand in line to pick up their identification cards.

Inefficiencies from manual processes extend past the first week of school. Student tardiness is an on-going issue. Students must stop by the office to pick up their handwritten tardy slips – and waste time better spent doing class activities. While this may seem trivial, many school districts depend on attendance numbers to maintain their funding levels. Less attendance means fewer dollars. Fortunately, advances in smart ID card technologies and the surrounding infrastructure offer the optimal solution for streamlining administrative tasks.



Smart access cards: What are they? How do they work?

The intelligence of embedded RFID

The term “smart access cards” in education, business and government applications encompasses a wide range of technologies. The common feature of most contactless, proximity-based solutions relies on embedded high-frequency (HF) RFID technology. Most contact type ID cards use magnetic stripe technology, which means students must swipe their cards through a reader, slowing down student access and creating bottlenecks. Magnetic stripe cards are also unreliable since they are easily de-magnetised.

Education access-card applications can benefit from UHF Gen 2 RFID’s long-read range and fast

identification capabilities. Schools can eliminate single-file, one-at-a-time card reads. Groups of students can move through large, open entry and exit points, rather than having to pass through narrow doorways, gates or turnstiles.

While conditions change in the business world, education facilities need solutions that can stand the test of time – future-proofed to last a student’s campus tenure. Made from durable materials such as polyester and PVC, secure ID cards can last the entire term of a student’s education – saving the institution the recurring costs of annual card replacement.

Benefits: security, efficiency and cost reduction

Just imagine: one ID card for everything – and that is the key

point. Smart cards can serve as the foundation for a wide-range of applications, providing opportunities to streamline security and administrative tasks across the entire campus. The process starts during student admission or when faculty/staff receive their new hire orientation. It is here that the school issues a durable, smart ID card embedded with RFID technology. Once an education district implements smart ID cards, the technology serves as the ideal foundation for on-going benefits, campus wide.

Tighten physical security and facility access

Student, staff and visitor management

Security is more than just ensuring that visitors casually check in at the



office. Protecting our students is becoming increasingly important. Other than hiring enough security guards to police every facility and access point, what can education departments do to improve security today?

Throughout the nation, many colleges and universities use visitor management systems to improve security and protect students against unauthorised visitors and people posing as students. While visitor management may seem like an issue only for K-12 facilities, college campuses are more of an open environment, making it difficult to monitor activity.

School security departments must know who is on the campus at all times. The first step is to strictly enforce visitor sign-in and issue the visitor a temporary RFID-enabled

ID smart card that affords track-and-trace technologies. Upon sign-in, school visitor software can also determine if the visitor is wanted by law enforcement or registered in the sex offender database – creating a path into law enforcement.

Access control for secure buildings or rooms

RFID-enabled smart cards present the optimal solution for not only visitor management, but access control for all people, campus wide. Issuing a smart ID card to all faculty, students, staff and visitors allows security departments to control who has access to what, where and when. Campuses can improve dormitory safety, secure labs with high-value equipment, and ensure research departments that are performing specialised projects only provide access to those with the right credentials.

Optimally, schools can integrate their enterprise resource planning (ERP) system with the ID card system. Doing so provides a single point of management for allowing or denying physical access to students attending classes in different buildings.

Time and attendance tracking

For many school districts, tracking the amount of time students spend performing class time is vital for planning and funding. To improve security and increase attendance rates, the Spring school district in Houston, Texas, has distributed RFID-enabled ID badges to 13,500 of its 36,000 students since December 2008. The technology replaces the manual attendance tracking that faculty had to perform for each class session and for each student.



With RFID-enabled plastic card personalisation and integration of digital photo identification solutions, schools can move from a handwritten to an automated approach. Smart access card solutions deliver a new level of accountability and enforcement that can help reduce the amount of tardiness. This wise investment of the school budget directly gives students more in-class time, while saving administrative time and money.

Streamline library access and inventory management

Campus libraries, printers and copy rooms should remain exclusive to students. With RFID card readers at the door, students entering the library or copy room can use their student ID to gain access. Students can then check out books automatically, with all information recorded and loaded into the student database. This eliminates the need for library checkout cards and provides real-time information on the status of overdue books. Schools can use this information to lock students out of privileges until they return the books or deduct the book cost from the student's debit fund.

Expand paid services

Electronic payment for food, beverages and bookstores

While on campus, students not only fill their minds, but also their stomachs. Students can load their cards with meal credits, allowing them to use their IDs like a debit card at vending machines and in dining halls. ID cards can include a prepaid spending account that students can use to make purchases at student stores and food service locations, as well as at school events. Parents and students both can access accounts

online to view transactions, add funds and establish automatic allowances. The benefits extend well beyond food and beverage purchases. Students can also use their smart ID cards to purchase books, pay for temporary parking on campus, and resolve parking citations.

Expand off-campus affiliate programs

The large student populations at universities and college campuses fill the surrounding community with a captive consumer audience. Smart ID cards bring the campus and community together to generate value-added opportunities for local stores, restaurants and service providers. Students can use their cards on or off campus and accrue credits and incentives for further purchases. Affiliate programs can also extend outside the local community into large franchises. When coupled with customer relationship management (CRM) databases, smart card purchases can provide valuable data for marketing metrics, enhancing affiliate programs even further.

Tying it all together: smart card printing technologies

Every access card technologies described in this paper including barcode, RFID magnetic stripe, smart card, graphics and photo security features, can be printed on demand – wherever and whenever. Switching from pre-printed access cards, temporary IDs and passes to on-demand identification printing systems provides an immediate benefit by removing the worries related to managing and securing costly materials.

A barcode is the most widely used data storage format for security

printing applications, and RFID is the fastest growing. Common linear barcodes easily meet most needs for encoding employee and visitor identification. Two-dimensional (2D) barcodes can encode significantly more text than linear codes and store digitised photos, graphics, fingerprint files and other biometric data. Smart card RFID printing solutions provide multiple encoding and security technologies, including holograms and magnetic stripes.

Digitally printed plastic cards provide numerous technological features but start with a blank plastic card customisable with any combination of artwork, graphics, text, digital photographs, barcodes, logos and more. The printer can encode additional machine-readable information, such as magnetic stripes and smart card chips. The image quality of plastic photo ID cards produce with digital printing technology is far superior and tamper-resistant as compared to those produced through traditional method of trimming printed photos and laminating them onto the card. Different card materials and laminates provide additional protection from tampering.

Magnetic stripe cards carry more data than standard barcodes but require media that costs more. Card issuers stock blank magnetic stripe cards and encode them on demand. RFID-enabled smart cards can hold the most data of any medium – up to 100 times more than a magnetic stripe card – and often include a processor chip that enables multiple applications.

Conclusion

Multifunction smart ID cards offer several easy and cost-effective ways for campuses to raise the



level of protection and quality of education. Today's smart access card technologies provide superior range and read performance so that educational institutions can improve efficiency and security at multiple levels.

Print-on-demand card printers can create secure student and staff IDs so campuses can maintain a safe learning environment. With IDs ranging from basic functionality to smart cards, schools can streamline records management, simplify class registration and attendance, and control access to secure areas. Fast throughput of student ID cards allows

for on-demand, in house printing to serve students faster.

With smart ID cards and POD solutions, parents and faculty alike can gain peace of mind that their students and campuses remain protected. Educators can now do more with less, while creating new opportunities to enhance the educational experience.

A global leader respected for innovation and reliability, Zebra offer technologies that illuminate organisation's operational events involving their assets, people and transactions, allowing them to see

opportunities to create new value.

Zebra's extensive portfolio of marking and printing technologies, including barcode, RFID, GPS and sensing, turns the physical into the digital to give operational events a virtual voice. This enables organisations to know in real-time the location, condition, timing and accuracy of the events occurring throughout their value chain. Once the events are seen, organisations can create new value from what is already there.

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





Agent Vi Cuts Investigation Time And Enhances Security At Tulsa University

Introduction

Founded over 120 years ago, the University of Tulsa (TU) offers over 100 undergraduates both graduate and doctoral programs to a study body of nearly 5, 000 students. With multiple buildings and facilities across the campus, TU sought a surveillance solution that would monitor key areas and protect valuable artwork, among other assets.

Challenge

The security team specifically wanted the ability to quickly search through recorded video to identify events of interest.

Solution

Systems integrator, JTI Security deployed Agent Vi's Real-Time Event Detection and Video Search software at TU. Over 400 network cameras from Axis Communications are employed across the campus. The AXIS P33 Network Camera Series (fixed domes) and AXIS P55 PTZ Dome Network Camera Series are used, as well as some analog cameras connected to Axis video encoders. All the cameras feed to a central dispatch room manned 24/7 by security operators.

Agent Vi's Video Search capabilities are enabled on every IP camera at the site, and Agent Vi's Real-Time Event Detection capabilities are enabled on cameras in sensitive areas. Real-



time detection rules defined on such cameras include:

- Asset protection: to alert removal of valuable artwork from the buildings' walls
- Suspicious object: to alert suspicious objects left behind and potential safety hazards to students
- Person moving in an area: to alert unauthorised movement in off-limits areas
- Person crossing a line: to alert perimeter intrusion

The site employs OnSSI's Ocularis CS as the VMS recording and viewing application, which is fully integrated with Agent Vi's software. All suspicious objects, perimeter

intrusions, sterile zone breaches and other security events detected by Agent Vi's Real-Time Event Detection software generate an alert including event image with overlay box, displayed in Ocularis Client. This brings immediate attention to the security breach and allows the operator to rapidly identify the type and location of the threat and dispatch the appropriate security response. Furthermore, the operator uses Agent Vi's video search application in order to retrieve the stored video from OnSSI's video management software to product video search results for review.

Result

A key concern is protecting TU's



valuable art collection displayed around the Performing Arts Centre. Agent Vi's Real-Time Event Detection software has transformed the surveillance system into a proactive tool that sends alerts to the security operators when an artwork is tampered with or removed. This increases the productivity of the security team who no longer monitors the live video feeds to protect the artworks.

In parallel, TU employs Agent Vi's Video Search functionalities to reduce time spent searching through recorded video during time-sensitive investigations. When campus artwork was found damaged, TU undertook an automatic search to investigate when the artwork was damaged and by whom. The video review –

which would have taken hours – was accomplished in less than 5 minutes with Agent Vi's forensic search capabilities.

Agent Vi's "Left object" rule has been activated in buildings close to the campus perimeter to alert the dispatch centre to suspicious objects. Instant video notification enables security staff to view the object in real-time and a security officer is dispatched when required.

William Redding, Assistant Director of Security Technology & Card Services at TU, stated, "Agent Vi offered everything that TU was looking for in a video analytics product. The real-time detections, together with the automatic search, which makes searching across a wide expanse and numerous cameras so simple, responded to our needs. Combined with the high detection success and low false alarm rate, we have greatly improved our level of security and become much more efficient in the field of investigating surveillance video."

Certified systems integrator and member of Agent Vi's Channel Partner Program, JTI Security, specifically selected Agent Vi's

solutions for TY. John Edwards, Owner & President at JTI Security, cited the time saved and flexibility provided by Agent Vi's Video Search capabilities, commenting that "The sheer magnitude of cameras and vast area they cover requires the horsepower of Agent Vi's Video Search expertise to provide timely and accurate forensic results. Along with running search capabilities on every camera at the campus, we recommended the wide range of real-time detection rules offered by Agent Vi to provide immediate notification of events to the security staff."

Miki Schwartzberg, Director of Sales at Agent Vi, commented "By employing Agent Vi's solutions, TU has increased the return on investment on their surveillance system, transforming it from a standard security system into an invaluable investigation tool combined with a proactive event detection application. Moreover, Agent Vi's seamless integration with Axis' IP cameras and OnSSI's video management software enabled easy installation and configuration."

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





Parents And Children Stay Connected At International American School Of Kuwait



Introduction

The American University School of Kuwait (AUS) is a co-educational private school located in the free trade zone in the Middle East for elementary students pre-kindergarten to fifth grade. From its inception, the founders of AUS desired a unique facility to prepare students to engage in the dynamic challenges of the 21st century. To support their mission, the curriculum offers the latest educational materials and technology. Combining digital media and traditional student-centered learning practices, students interact with others in multiple languages, developing the skills and instincts they will use to thrive as future global leaders.

In September 2013, AUS opened the elementary school. A separate middle school for grades 6 - 8 debuted for the 2014 - 2015 academic year. Eventually, the school plans to expand to a fully accredited high school for grades 9 - 12. When expansion is complete, the 624, 000 square foot facility will serve 2, 200 students. The building is designed with children in mind: large corridors, wide doorways, splashes of color and collaborative areas that promote creativity and interaction. The playground

is a wonderland for students to explore the world around them. Kinetic learners will flourish among the rock climbing walls, swimming pools, bicycle lanes, a sensory path, soccer and basketball courts, and the plant and water features that render excellent study environments.

The school chose the Avigilon end-to-end solution to secure the facility and ensure student safety. As an added benefit, Avigilon HD cameras are used in a unique way: parents can view their child's classroom activities. AUS Chief Information Officer Rusty Bruns explains, "From the parents' perspective, sitting at home, shopping, dining or at work, their child can be seen from their smart phones. This has a significant appeal to the current parents, as well as those of prospective students."

Parents receive texts every day as children come and go from school grounds, and can view their children at any time using Avigilon's ACC software. Knowing their children are monitored and safe, and seeing their progress in the classroom offers parents familiarity with their child's tasks and experiences. This innovative opportunity for parents to stay better informed is a winner for all concerned.



"We wanted it to be easy for parents to gain and use viewing access," Bruns notes. "With a standard analog security system, allowing twenty parents to view their child at the same time would be a significant challenge, but Avigilon's ground-breaking system negated the issue." According to Bruns, Avigilon's friendly and knowledgeable sales support was there every step of the way to help AUS identify its current and future needs.

For the American United School of Kuwait and the families it serves, the future looks bright. Since the school opened a little over a year ago, the students declare AUS an enormous success. Kim Cunningham, Elementary School Principal at AUS, is excited about a model for learning that creates tech-savvy and confident students from the beginning. "In a 21st century classroom, students practice critical thinking and problem solving and participate in authentic learning opportunities that are connected to the real world."

Challenge

Monitor all public and secure areas of a new-facility American curriculum school to ensure the safety of students from pre-kindergarten through grade 8, with a system that enables parents of kindergarten and pre-kindergarten students to remotely monitor children in class.

Solution

The American United School's six-person security staff monitor classes as well as public and secure areas using

the Avigilon Control Centre (ACC) software with High Definition Stream Management (HDSM) technology. The 30 Avigilon HD 3MP and 5 MP cameras offer exceptional high resolution details for real-time review of all school activities, classrooms, common areas and entrances.

The school stores at least 30 days of continuous surveillance footage on an Avigilon Network Video Recorder (NVR), and is able to leverage existing network infrastructure using a special virtual local area network (VLAN). The school's administration can monitor the system remotely during off-hours using the ACC Mobile app, and parents of kindergarten and pre-kindergarten students can also login remotely using their home computer or mobile devices to see what their children are up to in class.

Conclusion

The lean and flexible security team at AUS can quickly view, review and pinpoint active or potential security issues with the Avigilon HD solution. With the help of the user-friendly ACC software, the school's security staffs are now able to search footage for events more than 10 times faster than other schools nearby that still use standard analog systems now rendered obsolete. The clarity and wide viewing range of the Avigilon HD high resolution cameras helps the team watch over multiple areas without the need for additional cameras and security staff.

For more information, please visit:

www.avigilon.com 





Arecont Vision Megapixel Panoramic Cameras Are A Class Upgrade At Butler University

Introduction

Butler University is a liberal arts school situated in a residential area, five miles from downtown Indianapolis, Indiana. The University has an enrolment of approximately 4,500 students and offers over 60 major academic fields of study in six colleges.

Butler University's 300-acre campus includes more than 30 buildings as well as a 20-acre garden, an observatory, and water areas.

Challenge

All universities today are looking for ways to improve physical security in order to provide a safer, more secure environment for students, faculty, staff and visitors. At Butler University, the administration believed that upgrading their existing video surveillance to a fully digital IP system with high-resolution video surveillance cameras would help accomplish this goal.

The immediate need was to make improvements to the University's outdoor coverage and longer term to increase indoor surveillance. Accomplishing these objectives required the assistance of a knowledgeable system integrator – a partner who is experienced in providing IP



megapixel solutions and a firm who could work hand-in-hand with multiple University stakeholders. For this, the University chose KST Security of Indianapolis.

Megapixel solution

Butler University started the surveillance improvement project by evaluating various cameras and their capabilities to provide high quality images in an outdoor environment. The conclusion was that Arecont Vision panoramic megapixel cameras delivered the best image details and, because of their 180 degrees and 360 degrees capability, would be the most cost effective solution. The many additional features standard in the Arecont Vision megapixel cameras, such as motion detection, true day/night functionality, wide dynamic range, vandal-resistant housings, and remote focus/remote zoom, made the decision even easier.



Working with KST, school administrators next set out to develop and implement a deployment plan for the outdoor phase of the upgrade. As the project integrator, KST worked closely with Butler University's police and IT department personnel to ensure effective camera placements and integration with existing exacqVision video management system (VMS) software.

Megapixel benefit

The decision to implement Arecont Vision panoramic megapixel cameras provided immediate system improvements for the University. Not only did the cameras provide outstanding picture quality of high traffic areas such as parking lots and student housing areas, but the cameras performed equally as well in the heavily wooded areas where walkways connect the main campus to the school's athletic facilities.

The 180 degrees and 360 degrees cameras continuously capture a much wider field of view than other camera choices and the school receives complete coverage with fewer cameras overall.

The Arecont Vision cameras feature H.264 compression technology to dramatically reduce bandwidth over the school's fiber and copper transmission system. Video is captured at full motion and full resolution without compromising image quality at any point in the process. The open standards-based cameras easily integrate with the exacqVision VMS software.

Conclusion

"The improvement in the quality and performance of our video surveillance system with the Arecont Vision megapixel cameras is incredible," said Bill Weber, Assistant Chief of Police, Butler University. "The 360 degree views have made a tremendous difference in providing a safer and more secure campus."

Based on the success of the outdoor camera installation, the school also installed Arecont Vision panoramic megapixel cameras for indoor use.

Arecont Vision megapixel cameras selected by Butler University were the AV12186DN and AV20185DN SurroundVideo panoramic cameras and the AV12176DN SurroundVideo Omni IP panoramic camera series.

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





Galaxy Control Systems At Maryville College

Introduction

Located near Knoxville in Maryville, Tennessee, Maryville College is a private four-year liberal arts college. Founded in 1819, it is one of the top fifty oldest colleges in the United States and home to approximately 1,100 students.

In 2003, Fleenor Security Systems, an integrator providing custom security solutions to eastern Tennessee for three decades, upgraded the college's existing access control system with Galaxy Control Systems. Working first through the school's IT department and subsequently with physical plant and security staff, Fleenor was able to demonstrate the benefits of evolving to Galaxy System.

Solution

The upgrade began with the conversion of all the school's controlled doors, encompassing several dorms and an office building. Initially Fleenor utilised the existing mag stripe readers, supporting these for 3 to 4 years, before upgrading them to prox readers. Over time, the access control system has been expanded to include both new buildings and the renovation of older buildings on the campus. A total of 12 to 13 buildings now make up the system, with certain larger buildings incorporating up to 15 readers. Six residence halls utilise a total of 10 prox readers, since several of the halls need multiple readers for lobbies, stairwells and elevators (students use physical keys for their individual dorm rooms).





One extremely convenient feature of the system is the use of student ID cards as prox cards; the cards are also used in the cafeteria and library. Each student's card enables access only to his or her resident hall; staff and maintenance personnel have access to all buildings. The ID cards are issued to students and staff by ResLife, which allocates dorm space before each school year. When a student graduates or leaves school for any reason, ResLife turns off permissions for the cards as well. Temporary deactivation for students leaving in the spring and returning in the fall has been greatly simplified by the Galaxy software.

Formerly, school personnel would have to purge hundreds of departing students from the database each spring, only to have to rebuild the database with many of the same names each fall. Now they can simply remove privileges from individual users by unchecking one box on screen, and restore privileges in the fall by checking the box again. This has resulted

in major timesaving for Maryville personnel.

Access to each door on the campus is tailored to fit the needs of the students and provide optimum security. For example, for Sutton Hall in the science building, doors are kept open during the day. When

evenings and weekends come, doors are locked, but the ID cards of students with ongoing activities are activated for the duration of their projects. At the Clayton Centre for the Arts, a new \$50 million building project, public areas are kept separate from the educational wing using access control permissions. As with the science hall, administration can activate individual student's cards so that they grant entry to the arts building to rehearse or work on projects after hours.

The Galaxy System software can be useful for purposes of identifying individuals who may have been involved in an accident. Jack Piepenbring, Director of Safety and Security at Maryville College, said, "If there is an investigation and we want to find out who came into a residence hall or academic building during a certain period, I can look and see the names of people that uses their access card to enter at what times at each particular building."

With each building having its own locking and unlocking schedule,





there are many hours of the day during which each door should be locked. Residence halls all have prop alarms with sounders, so that if a door is kept open for longer than the setting allows, an alarm will alert the administration to monitor the situation and close the door.

Conclusion

According to the integrator, Phil Roberts of Fleenor Security Systems, the software is highly intuitive. "Someone with very limited knowledge of access control or System Galaxy can sit down and just scroll through the menu options and the drop downs and icons," he said. "Most people can figure out how to carry out whatever function they need it to do. With other software we've used, if you don't use it day in and day out it is very confusing; often the customer ends up getting frustrated and we have to send out tech support to guide them through it. System Galaxy is very intuitive."

"It's easy to deploy," Mr Roberts continues. "I think the architecture



is set up very well with the different 2 door to 16 door controllers. We found that the bandwidth requirements are very minimal as well. When we first started using those controllers on their network a lot of IT folks were very resistant to that. I remember one actually doing a test and reporting back that he couldn't even detect the network traffic because there was such a

little amount of bandwidth required. So it is very network friendly."

With so many benefits and advantages, Maryville College plans to add more doors to their Galaxy system as the school continues to grow.

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





Parrs Wood High School In Manchester, England, Makes School And Community Safety A Priority With Avigilon

Introduction

Founded in 1967, Parrs Wood High School in East Didsbury, Manchester, England is a popular and growing community school that was rebuilt in 2000 to better accommodate its 1,500 high school pupils and 400 Sixth Form students aged 11 to 18. Dedicated to helping students achieve academic success and secure their future in the workplace, Parrs Wood maintains strong ties to the local community, opening its doors for public use after hours. Driven by its belief that “Every Child Matters,” Parrs Wood implements policies, practices, and procedures to

safeguard the emotional and physical well being of staff, students and the community at large. To help create the safest environment possible, the school recently upgraded to the Avigilon high-definition surveillance system for broader and more detailed coverage of the entire campus at any time of the day or night.

Challenge

To deploy an advanced surveillance system in light of wanting to maintain the safest school environment possible at all times of the day and night.





Health and safety compliance

Committed to health and safety compliance, Parrs Wood embraces a culture of continuous improvement to maintain a safe school environment. "Health and safety considerations are part of every decision made at Parrs Wood and are therefore integral to our organisational function," said Andy Shakos, head teacher at Parrs Wood High School. As part of its ongoing focus on student safety, the school decided to replace its aging analogue-based surveillance system, which did not provide adequate coverage, was beginning to fail, and offered poor image quality, particularly on replay.

For help, school administrators turned to VtecZoom, a provider of surveillance and access control systems design, installation, and support throughout the United Kingdom. "VtecZoom is an approved installer with the Manchester City Council so we trusted that they could help us find a more advanced system that would deliver better results within our budget," explained Eugene Forbes, Head of Corporate Services, Parrs Wood High School. "Recommending the Avigilon high-definition surveillance system for its exceptional image quality, advanced manageability, and broad coverage; VtecZoom demonstrated a clear understanding of our issues and worked closely with us for two years to design a surveillance system that addresses our specific requirements."

Complete and affordable coverage

"As one of the integrators in the UK to achieve Avigilon Gold Status, we knew that the Avigilon high-definition surveillance system would deliver the power, quality, and manageability needed to help Parrs Wood achieve its high safety and security standards," asserted Deryck Petty at VtecZoom.

The school installed 93 Avigilon HD cameras in key areas across campus, including six Avigilon HD 1 MP PTZ dome cameras and 13 Avigilon HD 2 MP cameras to monitor key entrance and exit points, thoroughfares, and outdoor areas and installed 64 Avigilon HD 2 MP and 10 Avigilon HD 1 MP cameras to monitor key circulation areas, staircases, corridors, and communal areas within the buildings.

The school's four-person security team manages the Avigilon high-definition surveillance solution using the Avigilon Control Center network video management software (NVMS) with High Definition Stream Management (HDSM) technology and monitors the system 24x7. The school also installed five Avigilon Network Video Recorders (NVR) to store 14 days of continuous surveillance footage.

A Quick Install

Installation time was a key consideration for the school. "We did not want engineers onsite when students and staff returned to school after the summer holiday, so it was imperative that installation be completed within the six-week time period," noted Mr. Forbes. Consultants from Avigilon, VtecZoom, and Capital, a customer and business process management services provider, worked together to complete installation during the strict timeframe. "The Avigilon high-definition surveillance system was up and running seamlessly for the new academic year, providing maximum coverage within our tight timeline and budget – we could not be happier."

Ease-of-use

Ease-of-use was another top system requirement. "Offering smooth movements on replay, Avigilon Control Center software makes search and playback effortless, helping us achieve superior results in no time," stated Mr. Forbes. Delivering an excellent user experience, ACC offers simplified functions, such as the thumbnail search to pinpoint small changes in large areas, provides more camera views, and facilitates navigation from camera to camera to help users quickly find an incident, review it, and accurately identify individuals and events. "Using the software's advanced features, we can follow individuals from camera to camera with no jerkiness or lost detail on replay, helping us make faster and more accurate decisions."

Improved Theft / Crime Detail

The school, along with local law enforcement, has been very impressed with the Avigilon system's usability, which has played a key role in several investigations to date. In one case, school administrators were able to review footage of an out of school time bicycle theft. "In a matter of minutes, we were able to follow the perpetrator from camera to camera, accurately identify the individual, track him, and report the incident to the police, who have since followed-up and caught the thief," confirmed Mr. Forbes.

Clear visibility day and night

Another noteworthy attribute of the Avigilon high-definition surveillance system is its image quality, which is far superior to the school's previous analogue system. "The main weakness of our old system was the picture quality, particularly on replay and during the night when images were virtually unusable," explained Mr. Forbes. "Avigilon delivers first class images both live and recorded



to significantly boost our success in investigations.” In particular, Mr. Forbes has been very impressed with Avigilon’s incredible low-light performance. “Avigilon offers a marked improvement in night time surveillance, which was a key selling feature for us, since community groups use our facilities in the evenings,” he added.

Unparalleled Clarity from Long Distances

School administrators have also been impressed with Avigilon’s zooming capabilities. Using the Avigilon HD 1 MP PTZ dome camera with a built-in 20x optical zoom lens, the school can gain unparalleled image detail across the large school site. With such powerful zooming capabilities at their disposal, system users can capture evidence-quality facial recognition to better secure the campus at any time of the day or night. “Avigilon delivers first-class images in both live and replay mode to help us identify and address potential issues before

they become a serious safety concern.”

Conclusion

With a long tradition of academic success and service to the community, Parrs Wood High School believes that its strong ties with local organisations will ultimately benefit its students as they move forward in life. “Playing a key role in our community, we remain steadfast in our commitment to a safe learning environment where all students, staff, and visitors feel valued, encouraged, and challenged to succeed,” concluded Mr. Forbes. “We intend to review the Avigilon high-definition surveillance system on an annual basis to highlight our achievements and identify new areas for coverage as we continually strive to improve our school’s health and safety culture.”

For more information, please visit:
www.avigilon.com **EST**





Design Flexibility Of Morse Watchmans' KeyWatcher System Enables Customised Application For University Of California San Francisco

Introduction

When the name San Francisco is mentioned, most people think of the Golden Gate Bridge or perhaps the city's famous cable cars. In the educational community, the name San Francisco almost immediately brings to mind the University. Unique in its mission for focusing only on graduate school, hospitals and research, the University of California, San Francisco is recognised both nationally and internationally as a top tier institution.

Large-scale application

The University is spread over four separate campuses throughout the city, with a fifth under construction, and has a staff of almost 20,000 employees. Bob Norton, one of the school's designated locksmiths, is responsible for keys to the school's more than 30,000 doors. To help ensure the management and safekeeping of the keys, Mr Norton relies on the Morse Watchmans KeyWatcher key control and management system. The KeyWatcher automated





key control system is designed to release keys only pre-authorised users and to record and track all access activity.

“With as many doors as we have and as many employees eligible to hold keys, the order of magnitude for chaos is almost inconceivable,” said Mr Norton. “A key control system is essential to maintain order and manage the keys. The Morse Watchmans system performs this function perfectly.”

Customised solution

The Morse Watchmans key control system has been in place at the University for almost ten years and has been upgraded as well as expanded to encompass more than 25 key control cabinets. During that time, the most significant change to the system was converting the key cabinet access from a keypad to the use of the University’s identification key cards. In addition, over a period of three years Mr Norton’s department worked with the University’s IT department to network the cabinets and provide central control and transmission of all activity back to a dedicated central server.

The changes to the system and to the policies and procedures were made to address the large number of employees who are issued keys and the subsequent potential for lost or duplicated keys. Changing the system to the requirement of using a UCSF identification card to access the key cabinet effectively eliminated these concerns. Due to the fact that they key control cabinets are centrally managed, changes to authorisation can be made remotely as needed to help ensure the integrity of the system.

The scope of the project also called for the accounting and cataloguing of all keys issued for all four campuses. With thousands of door keys to manage, Mr Norton says it was more practical and realistic to store only the master keys in the KeyWatcher cabinets. Even with this concession, the number of keys to be stored and managed was still significant and required the use of specialised key rings.

“We have more than a thousand key rings in the system, each with several master keys attached,” said Mr Norton. “The key rings were custom designed for our application and there was no problem in the Morse system accommodating them. The same held true for converting the cabinet access from keypads to UCSF identification key cards.”

Convenience and reliability built in

Reliability of the system has never posed a problem and maintenance on the system has been minimal according



to Mr Norton. He says that keys are accessed hundreds of times a day throughout the four campuses and the KeyWatcher system dutifully records and transmits each and every activity. It is so reliable in fact that management from custodial and grounds crew staff has requested copies of activity reports for comparison to time and attendance reports submitted to them by their staff.

The network capability permits Mr Norton to receive transaction data as it occurs or on a regularly scheduled basis, including keys in use and overdue keys, inconsistent key usage and an audit trail for every user or key. For added user convenience, keys can be returned randomly to any open location in the cabinet. The illuminated key slots make accessing and returning keys easier and the system cannot be manipulated or easily tampered with.

The University continues to be extremely satisfied to work with Morse Watchmans as their system grows and evolves. “Morse Watchmans was there to assist us and provide the engineering support we needed to modify the system in order to meet our needs,” said Mr Norton.

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



SALTO RFID Locks Safeguards The University Of Colorado, Boulder

Introduction

The University of Colorado at Boulder, commonly referred to as CU-Boulder completed its project to install 5,700 SALTO RFID locks, replacing their previous magnetic stripe locks throughout all the University's residence halls. SALTO Systems' use of RFID technology, its robust architecture and its ease of use all combined to make SALTO the clear choice for the future of CU-Boulder's residence halls.

Increased security awareness, aging infrastructure and pressure to cut operating costs are just some of the many reasons why schools, colleges and universities look to find new ways to enhance campus security. Student housing in particular is often a key area for upgrade. While each campus-housing program is tailored to its individual location, many of the tasks that are required to perform are common across the country. These include assigning rooms, distributing keys, retrieving old keys and issuing





new ones, and this can be a time consuming task that can involve large numbers of staff and lengthy waits for students. Then, there is the matter of lost keys and their associated costs, which only adds to the workload.

Add to this, that older systems used a card that was just a standard key. Today that same card is now almost certainly going to be a student ID card as well as a room key, campus key, and be used for managing in-room energy usage, purchasing food, study supplies, bookstore supplies and riding the bus to class. Being required to handle all this, plus providing facility management requires a more modern approach to security. It needs an increasingly multi-layered approach that can maximise overall security now, while providing flexible future proof technology that will deliver lasting dollar value for the years ahead.

An example of such a multi-purpose access control system installation can be seen at that University of Colorado Boulder, which has just completed installation of some 3, 900 SALTO RFID XS4 keypad locks and 1, 800 non-keypad locks.

Time to upgrade the technology

CU-Boulder is the flagship of the four-campus University of Colorado System, which also includes the University of Colorado Denver, University Colorado Anschutz Medical Campus and University of Colorado Springs. Situated on one of the most spectacular campuses in the country, it offers approximately 3, 600 courses in 150 fields of study in arts and sciences, business, education, engineering, environmental design, journalism, law and music.

There are currently 26 residence halls on campus CU-Boulder. The residence hall room types range from singles to four person rooms and others with apartment style amenities. Along with that, there are some rooms that have more amenities than others, including a full bathroom and/or a kitchen. The majority of the students living in the residence halls are freshmen, but any year student can live on campus. There are several communities of residence halls located throughout the campus and in a separate area called Williams Village, which is connected to the main campus via the local bus transit services.

With this in mind, CU-Boulder's existing magnetic stripe door access system used in the student residence halls was aging and the university wanted to move their locking systems to newer, more secure RFID card technology. A program was initiated by HDS information Technology Department to evaluate alternative solutions that could offer them both the higher levels of security that they

wanted as well as the encrypted RFID technology that could be leveraged for their transit system and other uses on campus.

Challenge

Larry Drees, Assistant Director HDS Information Technology at CU-Boulder says, "Having used a mix of magnetic stripe door access systems as well as keypad and PIN enabled locks as part of our residence room standard for many years, we wanted to upgrade our technology, but still have something that was easy to manage.

"Our residence halls are busy places with high traffic areas, so any replacement locking system would have to be robust. Encrypted RFID technology was an important requirement for us, but we also wanted something that was reliable and easy to install. Also, we wanted our new system to be capable of integration with our Ecopass transit system and our campus C-Cure 9000 access control system within the next 12 to 24 months. In addition, we were impressed with the variety of locking hardware options giving us additional levels of security on a case-by-case basis while still being capable of management within a single system.

After many months of reviewing the options currently on the market, we settled on SALTO's XS4 solution as the locking system that could give us the functionality and technology options we wanted, at a standalone offline locking system price point. The ability to transfer information to and from the lock via an RFID card is also something we think will be helpful in managing these locks over the long term."

Planning and installation

"Ensuring the safety of students and their assets in residence accommodation is always a high priority," confirms Tim Moreno, Western Region Sales Manager for SALTO Systems. "Looking at the layout of the campus and the position of the various residence halls, we assessed usage and the level of security required and then worked with Larry and his team to design and subsequently install a highly secure and flexible networked access control system to meet all the needs of the university."

The solution chosen was the SALTO XS4 keypad lock, which is designed to provide increased levels of security and control for doors where extra security may be required. It offers users a choice of multiple security authentication methods to control access including RFID smart cards (DESFire EV1 smart cards at CU-Boulder), combined use of a PIN (Personal Identification Number) code + smart card or a separate keypad code.



The lock can be operated in 3 modes: smart card only, pin code + smart card or keypad code only. With standard smart card mode, the lock is locked at all times until opened with the student's key card that has access rights to that room.

When using pin code + card mode, each student has their own personal code. Typically, this is used where extra security and dual authentication (presenting both a card and typing in the pin code) are needed, and students can have up to an 8-digit pin code.

In keypad code only mode, the lock itself has an access code that is used for student authentication. Every student that goes through that door knows the keypad code. When two students share the same residence room, they are the only ones that know the keypad code of that room, and again, students can have up to an 8-digit keypad code.

"The university also plans to install the SALTO solution into the lobbies controlling the private secure areas of the halls," Moreno says, "and from a management point of view the XS4 keypad locks can handle up to 64, 000 doors and 4, 000, 000 users on a single system, with each

individual lock recording the last 1, 000 audit trail events at that door in its memory."

Conclusion

Larry Drees summarises, "Controlling access and securing our residence buildings is crucial. We now have 26 residence halls and 3 administrative support buildings using SALTO locks. At this point, we are keeping our system setup pretty simple. Most doors are student rooms, which are, locked 24/7, and we do not use the calendar features of the system to any great extent at this time. We also plan to work with SALTO to improve the user interface so we can restrict functionality at a more granular level.

Now that the system has been implemented, we're pretty satisfied with the quality and efficiency of the product. Besides helping us move closer to the university's vision for utilising RFID technology, the new system also leverages this technology while helping us meet our goal to provide a safe and secure environment for our students."

For more information, please visit:

www.saltosystems.com 



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Embracing Probability To Deliver Next Generation Cyber Defense



Introduction

Darktrace takes a fresh approach to the challenge of countering sophisticated attackers coming from the outside or the inside of an organisation, based on advanced machine learning and mathematics.

Today, all companies face risk from within their own walls from a variety of individuals and groups, including their employees and contractors, supply chain and customers, as well as malicious parties that have infiltrated the organization. Ongoing attacks that transpire week by week, often hitting the headlines and entailing serious damage to the victim company's reputation and revenues, show that traditional methods are not working.

The real 'cyber security' challenge is not about 'securing' our information systems – it is about accepting probability and understanding what is really going on from the inside of complex information environments. It is an illusion to think that if we have a lock and a key, we can achieve perfect security. In reality, we know that locks break and keys can be copied – and there is no perfect answer. The best solution must allow companies to continue to expose themselves to all sorts of risks, in the interests of running global, connected and competitive businesses.

Why are the traditional approaches failing?

There are **three key reasons** why the traditional IT security approach to cyber security has failed.

1. You can't keep the threat out

The traditional approach to security assumes that you can keep attackers on the outside of your networks, by strengthening your boundaries. Organisations have invested large amounts of time and money into perimeter controls and network configuration with the goal of keeping their information systems free from infiltration.

Unfortunately, the majority of corporate networks have been infiltrated in some way already. Threat actors have proven themselves capable of overcoming perimeter controls, and employees and other insiders with access to the network pose a significant risk too. We have to work on the basis that we are constantly at risk and that many threats, and certainly the most insidious, will get into an organisation with relative ease.

2. You can't define what is illegitimate

Creating definitions and policing information according to those definitions lies at the heart of traditional information technology. This core IT principle, widely used for all manner of automated applications, has duly been transmuted to the cyber security field. Indeed, there is a wide range of solutions that aim to create definitions of what 'bad' looks like, and proceed to protect you against that type of 'bad', if and when it is encountered again, in exactly the same way.

Whilst this approach may protect against unsophisticated attackers that use the same toolkit and tactics repeatedly, it is widely known that the most serious attackers are very good at what they do – they change their strategies all the time and use bespoke malware designed to conquer a specific target.



Furthermore, for this rules-based approach to work to any level of accuracy, constant software updates are required, although inevitably fail to keep up with attack tactics that are constantly evolving. It is reactive and incapable of defending against fresh, ever-changing threats as they happen.

3. The threat is not purely technical

It can be easy to forget the human at the end of every cyber mission, in a world of botnets, Trojans and Remote Access Tools. It is important to remember that serious cyber threats are directed by skilled people who move deftly and subtly around the network. The traditional black and white approach described above is incapable of dealing with the complexity and delicacy that such attackers bring to their missions.

Both external and insider parties usually exhibit identifiable characteristics or

warning signs before engaging in malicious acts. A contractor logging into the network at an unusual time of day, groups of files being aggregated, the set-up of a new employee account or the volume of email traffic through a particular server—these are all signs that are often insignificant individually but form a compelling picture when correlated.

In addition to the human nature of the attack mission, we should remember that the human vulnerability of employees and insiders are often used and exploited by attackers. Socially engineered attacks are on the up, and aim to dupe innocent-minded insiders into taking a certain action. Whilst training can help reduce this, it is impossible to stop all your employees taking the wrong decision every time.

The challenge of cyber and IT security executives is to embrace probability, taking into account the subtleties of human behaviours. This requires

seeing and understanding subtle and weak indicators that point to human intent and activity from within the network, in order to detect the emerging threat behaviours of the astute individuals behind every potential threat.

Protecting data integrity – it's not just about data loss

The nature of risk has changed, broadening to encompass a whole range of ways which damage can be inflicted. One major concern is around data leakage, loss and theft, with the proliferation of individuals and groups of individuals who want to take data because of its inherent financial value (such as credit card details), its economic value (such as manufacturing designs) or its political insights (such as government documents).

This is a worrying phenomenon, but perhaps what is more concerning still is



that today's information environments allow for data to be changed, without this being detected. Whether you are an insider or an external hacker, once you are on the inside, your access to data and your ability to change that data, or parts of it, is very difficult to stop. With a little malicious intent, very serious problems can arise. Imagine a situation where even your back up is corrupted.

Ensuring data integrity is absolutely central for most businesses in order to operate in the public market. For a healthcare organisation handling patient blood types or a bank managing its customers' bank balances, the prospect that critical data could be compromised in some way has the potential to destroy public confidence in their products or services and put them out of business.

When we think about how to solve the problem of cyber-attacks, we need to think beyond isolated data leaks or website hacks and take in the bigger implications of large infrastructures being compromised and confidence destroyed. Edward Snowden proved that even the best-defended and most security-conscious organisations are vulnerable to subtle, lone attackers who move silently within their systems and have the ready means to disproportionately undermine their entire operation.

Insider threat

The threat from people inside the organisation is massively underestimated – perhaps because it is an extremely difficult problem to solve. We need to entrust our employees and partners with certain access rights to allow them to do their

jobs, and yet at the same time, we cannot trust all of them to take the right decision, all of the time. Some may fall victim to phishing attacks and unwittingly help an attacker get in; others may have a grudge or other motivations that drive them to abuse their privileges with malicious intent.

Insider threat does not only come from our employees, but anyone with access to the network, corporate data or company premises, which makes policing insiders challenging. Modern enterprises thrive on the interconnectedness between them and their supply chain, customer base, contractual workers and other partner organisations and individuals. Today's corporations have expanded their networks accordingly, opening up their organisations to increased risk for the sake of fluid, efficient and competitive business operations.

There is a wide range of reasons why an insider could be inspired to act, either unwittingly or with deliberate intent, including financial gain, ideology, desire for recognition, loyalty to family or friends and general disaffection. With a range of personalities and motivations involved, it is impossible to identify high-risk users in advance.

Rather than analyse 'who did it' or try to second guess 'who might do it', the real challenge to identify such attacks and understand how they develop in real time – by analysing and correlating the subtle signs of compromise that each insider makes as they move within the network.

Insider incidents do not need to be at the scale of Edward Snowden or Bradley Manning to do significant damage to

your reputation or business. In spite of the improvements internal security in the majority of enterprises, we know that insider attacks are still feasible to carry out in spite of legacy security tools and good practice. Indeed, as network boundaries become more and more porous, the definition of those inside and outside the organisation has lost its relevance. One way or another, today's threats are carrying out the bulk of their missions from within the firewall. We need to learn and interpret the behaviours of all users, devices and networks in order to spot real adversaries in a world in which everyone is – or can become – an insider.

Introducing the Enterprise Immune System

Darktrace has pioneered a fundamentally new approach to the cyber challenge, known as the Enterprise Immune System, which is based on the assumption that organisations face a constant level of threat from within. This emerging category represents cutting-edge technology that is capable of learning 'self' within an organisation on an adaptive, real-time basis – thereby understanding when abnormal behaviour starts to manifest itself.

Like a viral DNA, which constantly mutates and evolves to ensure its survival within the human body, cyber attackers are sophisticated and constantly change and tweak their behaviours in order to avoid detection. Fortunately for us, the immune system is just as clever as viral DNA – it is continually learning and understanding what constitutes a threat. It is not a perfect system but generally it does a great job at protecting us from serious illnesses. In doing so, it allows humans to interact with each other and expose themselves to risk on a day-to-day basis. This is because, human beings thrive on social interaction and collaboration, living in a sterile glass box is not an option for us – and it is not an option for modern enterprises either.

Darktrace's innovative approach is based on complex mathematics that calculates probabilities in the light of evidence. This probabilistic method of detecting anomalies is the most pragmatic and accurate of protecting against unknown attack vectors operating within complex network environments. Enterprise Immune System technology iteratively learns a pattern of life for every network, device and individual user, correlating this information in order to establish an overview pattern of life and thereby spot deviations that indicate live, in-progress threats.

This new approach does not require prior knowledge of threats, looking instead of any behaviours that are probabilistically determined to be anomalous and therefore worthy of investigation. An Enter Immune System therefore gives organisations the ability to get ahead of threat for the first time, and remediate emerging suspicious activity before major damage is done. It also allows threat analysis to focus on truly concerning incidents that are likely to be seriously threatening, rather than producing floods of undifferentiated alerts.

This ability to self-learn and adapt to changing environments in real-time represents a step change for organisations around the world, enabling them to reconcile their need for an interconnected workforce, customer base and supply chain, whilst ensuring that they protect against serious, existential threats to their business in the most effective way possible.

Mathematics and machine learning 'done right'

The core of Darktrace's innovative approach lies in a breakthrough in probabilistic mathematics made at the University of Cambridge. Bayesian theory is known for its





ability to draw meaning from large sets of data, and a new branch of this field of mathematics, named Recursive Bayesian Estimation (RBE), is central to the development of Darktrace's founding technological innovation.

By mathematically characterising what constitutes 'normal' behaviour, based on the analysis of multiple data sources, RBE mathematics succeeds in identifying changing attack behaviours where conventional signature-based methods fall down. Powered by RBE, Darktrace's mathematical models are constantly adapting themselves in real time, according to the new information that it processes, and continually providing calculations of threat levels.

Darktrace also uses 'Sequential Monte Carlo' or particle filter techniques to maintain a distribution over the probability state variable. This distribution is built from a complex set of low-level host, network and traffic observations or 'features'. These features are recorded iteratively and processed in real time on the platform.

A plausible representation of the relational information among entities in dynamic systems in general, such as an enterprise network, living cell or a social community, or indeed the entire Internet, is a stochastic network, which is topologically rewiring and semantically evolving over time.

In many high-dimensional structured I/O problems, such as the observation of packet traffic and host activity within an enterprise LAN or WAN, where both input and output can contain tens of thousands, sometimes even millions of interrelated features (data transport, host-web-client dialogue, log change and rule trigger, etc.), learning a sparse and consistent structured predictive function is challenged by a lack of normal distribution.

In this context, Darktrace has pioneered the most advanced, large-scale computational approach to learn sparse structured I/O models by extending the L1-regularised

regression model (the lasso method) to a family of sparse 'structured' regression models. This allows for the discovery of true associations between linked malware and C2 events (inputs) and data egress (outputs), which can be cast as efficiently solvable convex optimisation problems and yield parsimonious models.

Acute methods for estimating and analysing varying coefficient models with structural changes occurring at unknown times or locations are required for Enterprise Immune System technology. Instances of such models are frequently encountered in social and biological problems, where data is structured and longitudinal, and the IID assumptions on samples being generated from an invariant underlying model no longer hold.

Darktrace has pioneered Bayesian methods for tracking the changing model structures and parameters, incorporating structural changes, the change times and unknown variables. These methods are essential when observing subtle variations in machine events to determine pivotal features within a behavioural history that may determine compromise.

In addition, the new mathematics provides Darktrace with non-frequent architecture for inferring and testing causal links between explanatory variables, observations and feature sets. Granger causality, Bayesian belief networks and the new approaches based upon Convergent Cross Mapping (CCM) permit high-degree confidence in causal linkage to be drawn, without the need for protracted and repeated observation.

The core of Darktrace's mathematical processing is the determination of normative behaviour using the methods described above, pivoting on Recursive Bayesian Estimation, Particle Filters and Sequential Monte Carlo techniques. This core incorporates a series of adaptive change point detectors (Mean and Variance, Sequential Point Estimation

and General Linear Change Point Detector) to resolve a probable threat sequence.

Conclusion

In an era of pervasive internal threat, a new approach is necessary that does not rely on legacy distinctions of 'inside' and 'outside' but instead is capable of understanding what is happening from within an organisation and dealing with the unexpected.

Modern organisations are not like medieval walled cities – interaction and collaboration across geographical and virtual boundaries is vital to their ability to survive. The new model of security must allow and encourage this flexibility, accepting that threat is present by default and that the battle against it will be constant.

The Enterprise Immune System movement allows organisations to understand threat holistically and defend against it, based on new machine learning and mathematical breakthroughs. The system is continually learning, meaning that it can deal with the unpredictability of sophisticated threats and move in step with both a changing organisational environment and evolving threat landscape.

Organisations that have implemented an Enterprise Immune System into the core of their information systems are now benefitting from the world's leading advances in machine learning and mathematics to protect against insidious and persistent threats from within their networks, while maintaining the flexibility and interconnection that we all thrive on. An Enterprise Immune System sits at the heart of a new approach that accepts the complexity of our systems and the threats within them. You may still catch the odd cold but in this game of probability, it will be a price well worth paying.

For more information, please visit:
www.darktrace.com **SS7**



Dahua Provides Security For Ultra Modern Shopping Mall In Mwanza City

Introduction

The construction of ultra modern shopping mall complex has taken off in Mwanza City. Mwanza is Tanzania's second largest town and the economic heart of the Lake Region. With the continuous development of the economy, the city needs better business environment to meet the needs of its residents. Therefore, the Mwanza Municipal Council commissioned K&M Archplans (T) Ltd to undertake the design and supervision of the proposed Ultra-modern Mwanza Shopping Mall that covers about 50, 000 square metres of the shopping space.

Challenge

The shopping mall has its unique challenges that must be taken into consideration when designing an effective security program, Dahua provides the security system for the ultra modern shopping mall considering all factors at the beginning of the construction, including plenty of network dome cameras, PTZ dome cameras and zoom cameras, bits of NVRs and LCD monitors as well.

The cameras cover the whole shopping mall, especially the entrances and exits, halls, corridors and the parking

lots. The mall will have a four-storeyed market structure developed that requires Dahua to equip the space with network dome cameras and PTZ dome cameras mainly inside the mall and installs the zoom cameras on the outside to secure the whole building.

Inside, Dahua 2-Megapixel full HD water-proof and vandal-proof network dome camera HDBW5200 with a dedicated-design of 2.7 – 12 mm fixed lens and features 1/2.8 inch 2-Megapixel progressive scan Sony Exmor CMOS, which is the best fit for the interior of the mall. Its IK10-rated vandal-proof can effectively prevent violent destruction. HDBW5200 is able to help to deter theft and respond to active criminal incidents/

Outside, the SD6A230-HN 2-Megapixel full HD 30x ultra-smart network IR PTZ dome camera protects the mall's exterior and parking 24/7 with recording high-resolution images. Other than its high image quality, the PTZ camera provides a wide pan and tilt range, 0 degree to 360 degrees horizontally and -10 degrees to 90 degrees vertically, delivering broad images of each scene and a complete picture of ongoing events. Moreover, the domes support 255 presets setup and the go-to speed of pan is 240 degrees and tilt 200 degrees.



With an IR range of up to 150 metres, it can feature both great day and night performance in any lighting conditions. It is able to monitor every corner of the shopping mall.

Conclusion

Dahua security system ensures that every person, both shoppers and employees alike, in the mall feels secured and welcomed. With its security system, the mall can respond with appropriate controls when hazardous events occur. The ultra modern shopping mall is structured with class and contemporary designs. Dahua Technology looks forward to witness the effects of its products in securing a major shopping mall.



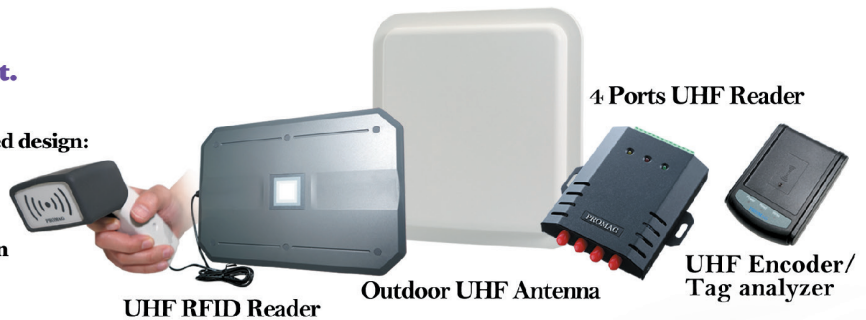
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Fail-Proof Perimeter Security For Lukoil Bulgaria

Introduction

Lukoil Neftochim Burgas based in Bulgaria, is the largest oil refinery in Southeastern Europe, processing 9.5 million tonnes of crude oil per year. The Lukoil oil production sites are vital to the Bulgarian economy, but also a present significant risk. To make sure its critical infrastructure is protected against unwanted intruders, the company called upon FLIR Systems for a fail-proof perimeter security solution centred around thermal imaging cameras.

“Lukoil Neftochim Burgas is a strategic site for Bulgaria. That is why the security requirements are so demanding. We do everything we can to achieve these requirements,” says Petar Bakalov, Executive Director at Lukom-A, Lukoil Bulgaria’s dedicated security agency.

Cost-effective perimeter protection

Until recently, Lukoil had used two independent systems for perimeter security: two fences with sensor cable systems at five metres length separated from each other. While they delivered quality results, the installation was rather costly, having to do a series of digging, cabling whilst using visual cameras and lighting for visual verification of the detected target.

According to Lyubomir Dimov, project manager at Lukom-A, the company therefore needed alternative solutions: “We decided to try thermal cameras, because they provide us with the opportunity to control the entire

territory with a relatively small number of cameras. When a movement is detected, we receive an alarm in our control room. The difference is that, with the sensor cable system you need cables, lighting along the perimeter, a video camera at 60 metres – all this is more difficult to implement and even more expensive. With thermal cameras, we always see directly what happens, regardless of lighting, daytime or night time.”

Better vision, day and night

Lukoil discovered the power of thermal imaging by testing a small set-up. The company learned that thermal cameras not only outperformed visual cameras at night, they are also highly effective during the day.

Dimov justified, “Three years ago, we decided to install cameras to guard a torch, an installation with a high level of explosion risk. We are able to perform tests with a thermal imaging camera from FLIR and discovered that even during the day, with a normal coloured camera, intruders can get lost in the greenery, when they wear the same colour of clothes. In contrast, thermal cameras can still follow them when they hide behind the bushes. This is really convinced us that thermal imaging technology was the way forward.”

Powerful thermal imaging and video analytics

For its petrochemical plant in Burgas, Lukoil called on main FLIR distributor for Bulgaria, Telelink EAD, a



leading system integration company in South-East Europe, and its partner system integration company 2 Plus Bulgaria AD. Together, they proposed FLIR's FC and F series cameras in combination with advanced video analytics software for achieving a higher level of perimeter protection.

Ivan Ilchev, systems technician at Telelink commented, "The sensor cable system that Lukoil Neftochim is using has its merits, but it requires extensive maintenance and the system's false alarm rate is relatively high. Also, a visual CCTV camera system has its drawbacks. If you consider that the Lukoil site has a very big perimeter for surveillance – more than 22 kilometres, then you actually would need more than 400 standard CCTV cameras. However, we knew that with one thermal imaging camera, you could easily replace six or seven visual CCTV cameras. That is why we advised Lukoil to use thermal cameras from FLIR Systems in combination with video analytics. This is a so-called thermal fence, which is indeed a very cost-effective solution. What is so amazing about thermal imaging cameras is that you can use them in almost any condition, at night, during fog, rain, harsh environments, like here, with no clean surface and with bushes and trees."

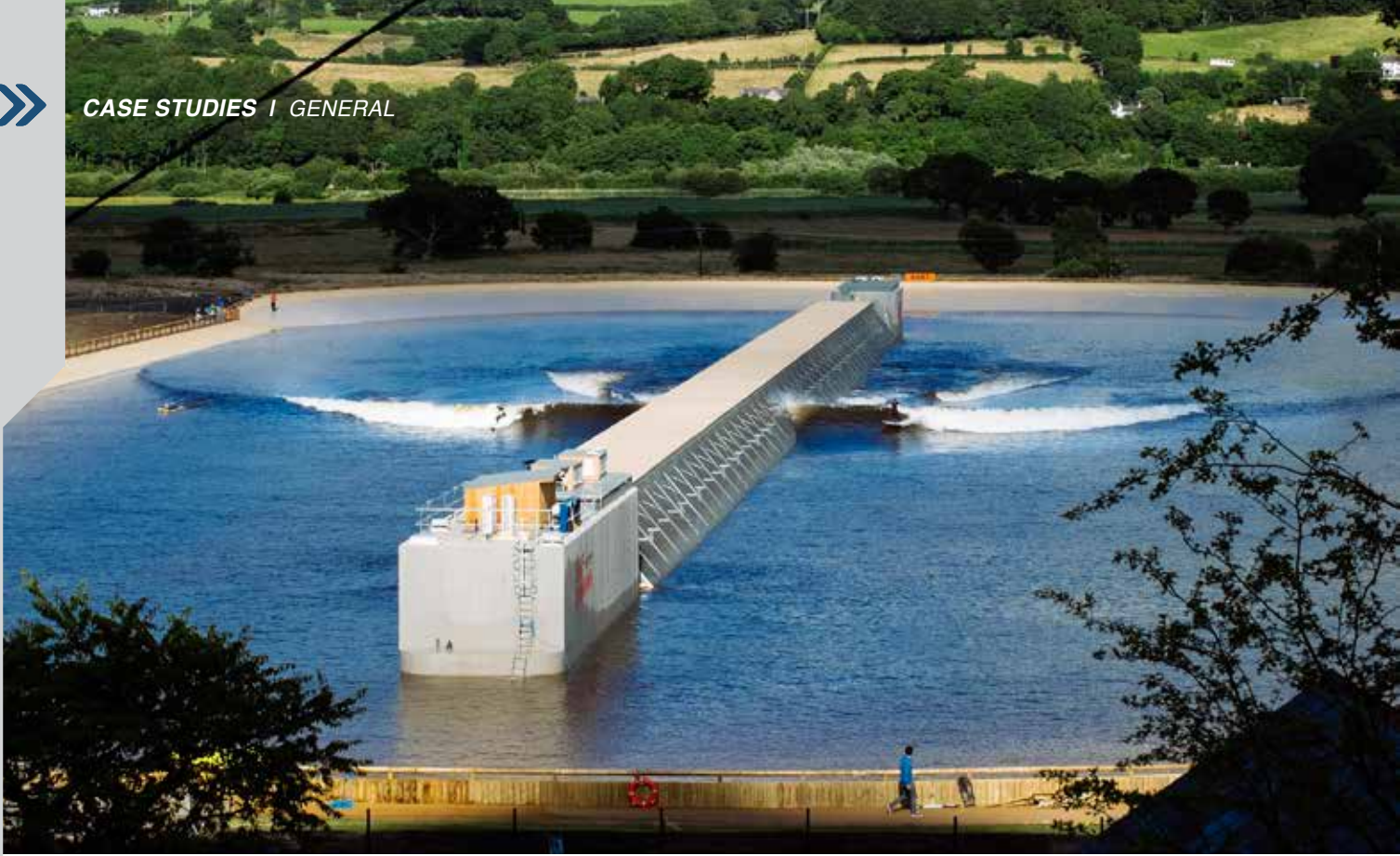


Thermal cameras: An investment that pays off

The benefits are very clear for Lukoil Neftochim. The investment for thermal cameras is much less than for lighting and visual cameras around the entire perimeter. Bakalov says, "Thermal cameras have proven to be the best solution for us, because of the specifics of the secured area. The Lukoil refinery is located in an area where there is no lighting and most of our problems occur at night. That is why thermal cameras are extremely convenient for us."

He continues, "The most important benefit is the reliability of the FLIR cameras – you can see the object day and night. Shortly after we had the thermal cameras installed, we were already able to capture two groups of intruders who were trying to enter the Lukoil territory with the intent of stealing scrap metal. For me, FLIR is one of the best camera providers in the world and I will recommend it to our management so we can continue our co-operation with FLIR in future."

For more information, please visit: www.flir.com/security **SST**



Surf's Up For SALTO At New Snowdonia Water Sports Park

Introduction

Built on a former industrial site – an aluminium rolling and casting works, which closed in 2007 – the derelict, brownfield wasteland has been turned into a £15 million fresh-water lagoon, roughly the size of six football pitches. This is now home to the world's first publicly accessible Wavegarden surf lagoon, which at the push of a button generates the longest man-made surfing wave – up to 2 metres high – every minute.

The waves interact with contours on the bed of the lagoon to provide different wave profiles at varying points in the lagoon. From the expert central area of the lagoon, two identical waves break simultaneously left and right with barreling point-break type rides up to 20 seconds long. Once the waves reach the beginners' area at each end of the lagoon, the left and right hand waves become smaller, turning into more playful whitewater waves: the perfect size for all ages to learn and improve their skills.

Besides surfing, Surf Snowdonia also offers a wide range of other water based activities as well as a surf-side cafe bar, coffee shops and retail space. A 50-metre glass-fronted viewing gallery also lets visitors get close to the surf action without even getting wet.

Solution

To cover guest security for those staying on site, Surf Snowdonia appointed SALTO partner Gateshead-based Advantex Network Solutions Ltd. They installed a Wi-Fi infrastructure to support state-of-the-art IP based access control telephony and intruder alarm services.

Visitors can stay in 36 accommodation 'pods' each of which can each sleep up to 4 adults so up to 144 guests can be catered for on-site. Each of these pods is secured by a SALTO stand-alone battery operated and weather proof XS4 E9451 handle set in a stainless steel finish. These are joined by 3 online doors in the central corridor of the HUB building, and 9 wire free handles in the HUB, amenity block and plant room. In addition there are also 300 lockers on-site, with 56 more to come, which visitors can use to store their personal items, all secured and protected by SALTO electronic locker locks.

The smart SALTO access control solution enables Surf Snowdonia to have full command of the site controlling who can access what, where and when at all times. The smart card operated handle sets enable guests to access their pod for the duration of their stay with an audit trail providing full security details of every time the door to



the 'pod' is accessed. If for any reason the card is lost or not handed back when the guest leaves the park, it can be cancelled simply and quickly and a new one issued with no worry about having to change keys or locks.

This technology gives Surf Snowdonia the ability to continuously upgrade its security if and when it chooses without having to upgrade the locks, saving long term operating costs while providing what they need most – total control.

Conclusion

Andy Ainscough, Director of Operations at Surf Snowdonia said, "Advantex impressed with its expertise and ability to deliver and support a large-scale infrastructure project. As a part of that solution, our new SALTO access control system will give our guests peace of mind and security when staying in our accommodation and will meet our needs long into the future."

"This prestigious contract is a massive boost for us, strongly reinforcing our position as one of the top suppliers of advanced network solutions" comments Stephen O'Connell of Advantex. "The advanced SALTO access control system we've installed at Surf Snowdonia is part of that, and clearly demonstrates we have the ability and expertise to deliver any size of project, anywhere on time, within budget and to the highest specification regardless of location."

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



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Images courtesy of UBERMEN

Ubermen Equips Store Checkpoint Systems' Solution

Introduction

First established in 2010, Ubermen is an Australian apparel brand operating online and through select specialist retailers. Ubermen recognises masculinity should not be at the expense of quality, design, fit and feel. This belief carries over to the design of their first store. They approached Checkpoint Systems wanting an electronic article surveillance solution that would not interfere with Ubermen's seamless store design.

Challenge

Ubermen wanted to provide a state-of-the-art retail experience with a seamless store design. Checkpoint Systems' loss prevention solution for Ubermen needed to be attractive and unobtrusive, while still providing an effective loss prevention solution with expandability for emerging RFID technologies.

Solution

Checkpoint Systems provided a solution for Ubermen that featured Australia's first RFID-EAS application in the apparel industry. The ability to integrate high-quality promotional panels made the E10 antenna the ideal choice. Ubermen initially planned on using RF-EAS and phasing in RFID technology in the future. Once they understood they could take a phased approach - using RFID-EAS as the first step - IT Manager Mr Yannick Lin recognised that they could accelerate adoption of an


integrated RFID strategy by 12-18 months.

Says Mr Lin, "This is our first bricks and mortar store; we are establishing new operational processes. It did not make sense to start one way and then retrain and possibly reengineer processes once we implemented RFID in 18 months. By starting with RFID, the discipline and practices are already established, I can activate the higher level RFID features as soon the business is ready."

Product Manager Ian Sharrem is excited about the first RFID-EAS solution for Checkpoint in Australia. The E10 with RFID-EAS not only provides Ubermen with an advanced security solution, it gives them a technology platform for competitive advantage in a highly competitive market.

Conclusion

The next phase of the project will see Ubermen implement weekly if not daily stock counts using the unique item level identification provided by the RFID tickets. Mr Lin and Mr Sharrem are working through the details of how Checkpoint's OAT Foundation Suite application and middleware software will be configured and deployed. Both Mr Lin and Mr Shareem are confident that Ubermen's Brisbane store will be conducting RFID enabled stock counts ahead of the Christmas retail season.

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



Arecont Vision Megapixel Cameras Increase Situational Awareness

Introduction

The City International Hospital (CIH) is a new multi-specialty hospital located within the Binh Tan district in Ho Chi Minh City, Vietnam. Situated at the international Hi-Tech Healthcare Park, CIH features the latest medical technology and imaging equipment.



MP panoramic cameras. These high-performing cameras deliver exceptional situational awareness in both day and night lighting conditions. Additionally, there are approximately 60 Arecont Vision MegaVideo AV2115DN compact day/night megapixel cameras installed at key locations, which are operational 24/7.

Facilitating large volume of visitors at the hospital everyday, there was the ultimate need for a best-in-breed surveillance solution and became a high priority to the hospital management. To fulfil this requirement, hospital administrators turned to Citek Corporation, a technology integrator located in Ho Chi Minh City.

“The quality of Arecont Vision cameras more than satisfies our requirements for image quality,” said Mr Lai Voon Hon, General Director of Hoa Lam-Shangri-La. “The system is working very well for us and Arecont Vision is extremely responsive to our needs.”

Challenge

The need to secure CIH by maintaining the highest levels of situational awareness was a primary design objective for the new video surveillance system. To achieve this goal, Hoa Lam’s management team worked together with Citek’s technical personnel to design and install a superior video surveillance system.

The decision to deploy an IP surveillance solution featuring Arecont Vision megapixel cameras was based on superior functionality and image quality, ease of use and the ability to manage the system centrally or remotely.

Megapixel benefits

The CIH management team carefully evaluated their long-term return on investment (ROI) comparing IP and analog surveillance system solutions. Since a smaller number of Arecont Vision megapixel cameras provide superior area coverage to conventional cameras, substantial savings are derived. This includes reducing the number of cameras, cables, poles, and housings plus the requirement for less on-going maintenance and fewer VMS licenses.

Additional savings are derived from the reduction in manpower needed to watch video feeds and guard the facility. Beyond the financial benefits, CIH management recognises the intangible ROI achieved from maintaining high security, which makes the facility a safer place for patients, staff and visitors.

Megapixel solution

Citek became an Arecont Vision installer in Vietnam in 2009, and installation of the video surveillance system was a smooth process by the experienced integrator.

The video surveillance system at CIH is monitored on a local network, which includes a main server and two client systems. There are approximately two hundred Arecont Vision cameras installed at the facility to date, including approximately one hundred SurroundVideo 360 degrees AV8365DN 8 megapixel (MP) panoramics and 35 SurroundVideo 180 degrees AV8185DN 8

“The International Hi-Tech Healthcare Park will be the first integrated healthcare development in Vietnam to provide a comprehensive healthcare environment employing high tech medical equipment and a professional medical staff. Our new video surveillance system is an important element of that environment,” said Mr. Lai Voon Hon.

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



Virgin Trains Deploy Darktrace's Mathematics-Driven Enterprise Immune System Technology

Introduction

With over 12 years' experience in connecting Britain's major cities, Virgin Trains is one of the most highly rated rail operators in the UK. Dedicated to providing a faster, greener and more comfortable service to customers, Virgin Trains travel at 125mph, effectively delivering customers to their destination at speed. As part of the Virgin Group, Virgin Trains sits within one of the world's most recognised and respected brands.

Challenge

As part of the renowned Virgin Group, Virgin Trains takes the protection of its customers' information, brand reputation and train operating data very seriously. The company wanted to find a new way to continue to optimise the customer experience, while balancing business risk associated with the complex, cyber-threat landscape. As part of the UK's critical national infrastructure, Virgin Trains was looking for a proactive approach to cyber security to stay head of the curve.

Virgin Trains relies on a global partner network, consisting of various third-party organisations that connect to the company's network everyday. It is also responsible for trains that are increasingly connected and vulnerable to external influences, ranging from the coffee machine connected to the Internet, to passenger devices connecting to the train's public Wifi. The company realised that a next-generation security solution was required to thrive in a hyper-connected environment while pre-empting

potential security problems that could present themselves. In particular, Virgin Trains was keen to gain absolute visibility into their network in real time, in order to understand and intervene early in any situations that had the potential to disrupt the customer experience, compromise commercial or sensitive data, cause criminal damage, or even result in physical safety issues.

Solution

When Virgin Trains evaluated its cyber security investments, it chose to deploy Darktrace's mathematics-driven Enterprise Immune System technology, due to its unique ability to detect real threats that bypass other legacy security controls, and do this in real-time, as they emerge on the network.

Based on machine learning and Bayesian mathematics developed at the University of Cambridge, the Enterprise Immune System is a self-learning, cyber threat defence platform, which forms an adaptive, probabilistic understanding of 'self' within a network. With Darktrace, Virgin Trains is capable of detecting very subtle deviations from the organisation's normal 'pattern of life' as they happen, and respond proactively to any anomalous behaviours that are uncovered.

Virgin Trains accesses the powerful technology of Darktrace through its Threat Visualiser, a 3D graphical visualisation interface that immediately alerts analysts of any detected anomalies and potential issues, so that they can investigate in great detail. This enables



the company's analysts to better understand what is happening within their information systems and focus on mitigating the most important risks to the business in real time.

Conclusion

In transitioning to this proactive model of cyber defense, Virgin Trains have succeeded in striking the balance of protecting its information and brand, while continuing to leverage global interconnectivity and human creativity. With early visibility and continuous monitoring of network activity, the company can effectively safeguard its data and interconnected systems, without damaging its ability to deliver world-class customer experience and remain a flexible and dynamic enterprise and remain a flexible and dynamic enterprise.

"Darktrace is a game-changer because now we have a baseline of how our users, devices and network operate

and how that changes over time with our business. As opposed to SIEM-based retrospective approaches, Darktrace's cyber intelligence platform and Threat Visualiser interface provides us with absolute visibility into what is happening in real-time," said Louis Kangurs, IT Network Manager at Virgin Trains. "We can now pinpoint and target our security resources and spend much more intelligently."

With Darktrace's adaptive, self-learning platform, Virgin Trains has acquired an unprecedented understanding of how its users, devices and network operate. Darktrace passively monitors the network on a 24/7 basis, which means that the company is able to rapidly resolve any developing issues before they result in a crisis, considerably reducing the risk of undergoing a debilitating attack or compromise.

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

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Securing Devices In A Collaborative Business Environment

Article by Fernando Pires, VP Sales and Marketing, Morse Watchmans

In today's business environment, meeting spaces, desks and even devices are shared between personnel. Often a single mobile device, such as a smartphone or tablet will be the "official" device for maintaining social media or other online business accounts. There are a number of benefits to this type of collaboration, mainly the ability to spread responsibilities among multiple employees rather than tasking a single individual, which essentially helps boost productivity.

In addition to their benefits, these types of collaborative workflows can also create a number of security challenges, the most notable of which is the control of devices, including preventing them from simply walking out the door. Without a system in place to manage who has access to which specific devices, for how long they may have them and if or when they are returned, there is no accountability for ensuring their safe return which increases the likelihood of their disappearance.

One effective strategy many organisations have employed to address these challenges is to install a cabinet system that controls access to lockers where devices are stored. Similar to those used in advanced key control systems, these asset management solutions can reinforce access control policies that are already





in place and can help reduce cost and inconvenience associated with lost devices or unmanaged access. Before they are able to access a cabinet, users must provide their credentials using a combination of ID cards, biometrics, prox cards and/or PIN codes.

Another layer of security and accountability is added by granting access to only those items or devices where one has authorised the other to remove. Reservations, time limitations and other controls ensure that individuals have access to the device they need when they need it. Management is also able to better organise and allocate items to optimise their correct usage and prevent both misuse and theft.

Today's most basic cabinet systems typically consist of a computerised storage cabinet with lockers for securing devices, a locking mechanism and a tracking system. Building on this basic configuration, there are a variety of options that can be added to enhance and customise the solution and help protect the investment as needs grow and change.

Asset control systems on the market today are more than simple locking cabinets; they have become high-level management tools for effectively addressing the security and safety of building occupants and the security assets. Knowing the identity of authorised users, which device or devices they have access to or have in their possession at any given time, when devices are used and when they should be returned are among the many essential pieces of information necessary to help ensure the integrity of devices used for collaboration. For example, a specific device that has been lost or stolen can be deactivated remotely to prevent unauthorised access to an organisation's network and/or sensitive data. Email alerts sent to selected members of management if a device is not returned on time allows organisations to act quickly to determine the appropriate actions to take.

Ease of implementation

The process of implementing an asset control and management solution is very straightforward, requiring just a few simple steps: take inventory of devices to identify which are shared among staff; ascertain the needs of employees who share those devices; and establish a policy with procedures that are easy to follow for effective device control and management.

The ability to add on the specific components that your organisations needs, or to change modules within the locker cabinet when needed, helps protect your investment in an asset control and management solution. This lets you avoid having to rip out and replace an entire existing system if you need additional functionality in the future.

Most importantly, a simple but strong set of guidelines for



administration and use of the asset management solution will help define and assign areas of responsibility and enable better control of devices.

Simplified configuration

Once installed, asset management solutions are relatively easy to configure. The process consists of identifying the needs of the organisation and employees and then building the system with the components that meet those needs. The combination of features is entirely up to the organisation, ensuring that the system can not only be customised, but can be changed later on to accommodate growth or other specific needs.

Configuration can also include additional security features that help enhance the integrity of the system. If protection of the asset lockers is mission-critical – and in the case of devices, it should be – a remote access panel provides an additional layer of protection by allowing the locker system to be installed within a secure room. A second PIN and verification would then be required for an authorised employee to access the contents of a locker.

Way to access the asset cabinet can also be customised with a built-in keypad, a fingerprint reader or magnetic or proximity card reader. Systems that incorporate card readers often utilise the existing access control cards that are already in use throughout the organisation, making system implementation easier and more convenient. Necessary changes to an individual's access authorisation can be made instantly via program administrators. For easy accessibility, optional user interfaces can be integrated directly into the cabinet, or an organisation may choose



to keep them separate. In either case, users have access to only those stored items they have been authorised to remove or return.

Integration with other systems

In most cases, asset management solutions can be integrated with physical security systems without the need for expensive upgrades or complete overhauls. Asset control systems that feature alarm and relay input and outputs, for example, can be integrated with existing video surveillance systems for added security. Ethernet and USB capability help to ensure system compatibility and integration.

Under circumstances where by there is compatibility between security and network access systems while being integrated with existing databases, saves both time and money. For ease of use, Ethernet, or TCP/IP communications ports enable direct connectivity to printers or other devices, as well as network connectivity via Ethernet.

Tracking and analysis

The ability to manage all programming, remote functions and reports with a software-driven solution is one of the biggest factors for successfully implementing an asset management system. Similar in concept to popular access control systems, a PC-based package of management software streamlines and unifies day-to-day operations and activities. Authorised management can add users from a global list, with any specific settings that are added or modified automatically synchronised across the entire system. Profiles can also be assigned for improved user control, and there are various options for tailoring administrative access privileges to specific needs, including reporting or alerting.

With built-in scheduling capability,

systems can be programmed to automatically download all data to a secure PC as required by users. This allows management to better sort and analyse information to maintain maximum control of devices. Scheduled email reports that detail what devices are in or out, who has or had them and for how long provide the up-to-date information security management needs to ensure the integrity of shared devices within an organisation. Should an incident occur, such as a device not being returned on time, management can quickly query the system for specific details that, when combined with audit data, provide a strong evidence trail.

Mobile capability

With advanced communication capabilities, asset management systems can be monitored and administered remotely from tablets or smartphones, as well as from a desktop. Authorised personnel can quickly and easily check devices status, cancel an alarm or alert and/or remotely disable user access and

more. These are just some of the many capabilities available that provide mobile users with one more layer of convenience and control for asset management.

Conclusion

The many available features and functions of today's advanced asset control and management solutions allow businesses to continue to reap the rewards of collaboration without concern about potential theft or loss of devices that are shared between multiple employees. The potential dangers associated with device loss could be catastrophic for any business. With available options that deliver as much or as little functionality as required and make these systems incredibly easy to implement and use, asset control and management solutions are an ideal solution for practically any organisation, regardless of size and type, where devices are shared.

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www.morsewatchmans.com **SST**





AN INTERVIEW WITH



MR RICHARD DOBROW, DIRECTOR, CYBER SECURITY, PRODUCTS, BAE SYSTEMS APPLIED INTELLIGENCE

Referencing to the foundation of today's wealthy technology options, we often find ourselves wedged in between a galore of avenues. While these choices have certainly made a block of convenience for users, it has also greatly affected security solution providers in ensuring the level of secured networks with the bars being raised higher each time something new is invented. In your opinion, is there a limit as to how much these security solutions can evolve to meet the constantly changing needs of future developments?

The security landscape is one that is always evolving, and companies are always working on navigating these changes and evaluating their situations and options. As the threat of security breaches grows across the Asia Pacific region and also across the different sectors, security solutions have to keep up in order to address companies' needs better. To that end, our latest launch of a suite of cloud-based cyber security solutions speaks to precisely that need, as it is designed to defend against targeted attacks, including so-called "Zero Day attacks."

The expansion into the cloud of the BAE Systems Applied Intelligence's security offering aims to meet high customer demand for a wide and flexible portfolio of solutions - from on-premise services to cloud-

based services and managed security services - to combat the ever-increasing cyber threat. This ongoing growth in customer demand means that there is room to grow and evolve security solutions to meet security needs. The cloud-based delivery mechanism of these security solutions allows for more rapid adaptation to the changing threat-scape. This will inevitably serve as a strong foundation for security programmes moving forward.

The Asia Pacific region spans across from countries like Thailand to Australia. According to analysts, the Cyber Security market in the APAC is expected to grow at a compound annual rate of 15 per cent over the period of 2014 - 2019. What are your thoughts on the growth of the cyber security market in the APAC region? Do you agree with this analysis?

We agree that the cyber security market in the Asia Pacific region will continue to show strong growth over the next few years and into the future. There are a number of trends which support this thinking. The Asia Pacific IT market is generally growing at a more rapid pace than Europe and the US. As such, the more rapid expansion of IT infrastructures will demand the inclusion of significant security apparatus to support these implementations.

We are also seeing the movement of the IT security conversation into the boardrooms of many of Asia Pacific's largest commercial enterprises. The desire to play a broadened role on the world stage means that recognition for the need to protect customer information and secure confidential data is becoming a necessity to meet these growing corporate ambitions.

The other trend causing the growth of the cyber security market is the expanding attacks and corresponding costs



of not defending these valuable digital assets. Everyone uses email and 95 per cent of cyber attacks start with an email. These attacks are becoming more targeted and launched against individuals within the organisation. Since these attacks are directed through systems that are in general use across all corporate networks, the defensive solutions will have a very broad and large market for deployment. This will bring the purchasing requirements for cyber security solutions and services to organisations of all sizes across the region, making it not just a large enterprise problem.

As more targeted attacks at organisations become increasingly common, the conversation around cyber security is no longer limited to IT staff but has moved up to board level and C-suites because of the potential high costs incurred, consequences of lost data and impact on reputation. This broader scenario that is unfolding explains the growth of cyber security spend in the region, as companies play catch-up and try to keep pace with the changes and try to prevent attacks before they take place.

The human culture in this era is heavily dependent on BYOD gadgets like mobile phones and tablets and coupled with today's technologies, portals can be accessed from literally anywhere. How does this change or affect the preventive methods used for cyber threats?

The trend of BYOD is a phenomenon that CTOs and CIOs have grappled with for some time now, and it looks set to stay. What companies can do is to deploy the right technology that can match their internal, traditional systems with the newer platforms but also to put in place security that can be easily integrated into these systems. BAE Systems Applied Intelligence' latest launch of cloud-based security solutions – a suite of email security services that provide end-to-end views of both inside and outside threats – offers that. Its Email Protection Services (EPS) are fully integrated, easily controlled with a unified and intuitive security management console, and provide organisations with full security and control over inbound and outbound corporate messaging. Elements of EPS can be implemented collectively or a la carte.

Singapore is known to be a hub of large-scale organisations for many sectors, for example, banking and finance & healthcare that requires a

lot of protection for its confidential information. In your opinion, to what extent has the cyber world and risks evolved in Singapore context since the early 2000s? What is the current state of Singapore's IT security threat landscape?

Singapore's advanced thinking in this area has served it well, as the companies here – multi-national corporations and also smaller to medium sized businesses – are generally well equipped to handle cyber attacks and are also largely well protected. That said, the security threat landscape is one that is always evolving, and while companies can continue to educate their employees on practicing good email and data hygiene, it should also be supplemented with the deployment of the right technology to guard against both incoming and outbound attacks. We are seeing the conversations around taking real measures against cyber attacks happening at the highest levels in the companies that we work with, and this means that Singapore will continue to do well in making sure that organisations here are sufficiently equipped to withstand security threats.

In addition to this, Singapore companies who are leading in global markets such as financial services will see the bar raised in terms of regulatory requirements governing the security of these high value networks as well as the security around private customer information. Singapore's position as a leader in these high profile markets which house large amounts of private and protected data will continue to force large cyber security demands on the organisations which participate on the global stage.

There are certainly key early stages to cyber security threats that can help prevent further risks down the road. What are the ways BAE Systems detects the early stages of cyber security threats and how are they mitigated?

Cyber criminals are increasingly aggressive, well funded and persistent. No company can ever be perfectly safe from the most determined attackers. Our latest launch of a suite of cloud-based security solutions includes the Zero Day Prevention service, which provides an essential margin of safety for customers seeking to prepare for specific and unusual attack scenarios. We arm CIOs and IT managers with new, comprehensive detection



techniques to reduce their company’s attack surface and vulnerabilities. And because we address the entire kill chain through our complementary portfolio of managed security services, we believe we offer more protection than any other solution provider.

Email is the single most important entry point for malware insertion. New data breaches are uncovered almost daily – any one of which can jeopardise companies, placing intellectual property at risk, and causing monetary and reputational damage in minutes. Zero Day Prevention from BAE Systems provides superior protection against targeted email attacks like spear phishing, “longline” phishing, and zeroday exploits. It also protects our customers from attackers as they try and take control and force a download. We outsmart sandbox-aware attacks with advanced detection of sleeping payloads. Suspicious code is inspected and destroyed within the BAE Systems Applied Intelligence secure cloud to eliminate entry into customer networks.

How does BAE Systems intend on making a stronger presence in the APAC region? What are the plans in tow for the next 5 – 10 years in Asia Pacific?

Asia Pacific’s position as the growth engine of the world economy has intensified in recent years. According to the International Monetary Fund, in 2014 the region accounted for nearly two-thirds of global growth.

It makes sense, therefore, for BAE Systems to have a strong presence in the region.

BAE Systems has a strong track record of building relationships with customers and partners across Asia Pacific and has a wide network of 15 offices in 10 ASEAN countries, including Singapore, Australia, Malaysia and the Philippines. We work with most of the banks across Asia, including six major banks in Singapore, primarily on helping them fight financial crime. Our aim is to offer existing financial services clients, plus other key sectors in Singapore, our defence-grade cyber security solutions.

The company has had an office in Singapore for a few years now and the past year has seen the number of staff in our One Raffles Place office triple in-country over the past twelve months. This expansion is customer driven. There has never been a more intense global interest in countering what we call “digital criminality” – in other words financial crime, such as fraud and cyber security.

To support the launch of our suite of security products designed to defend against targeted attacks, we also plan to build a cloud security services team across the region, which will include a team based in Singapore, which we are currently recruiting for.

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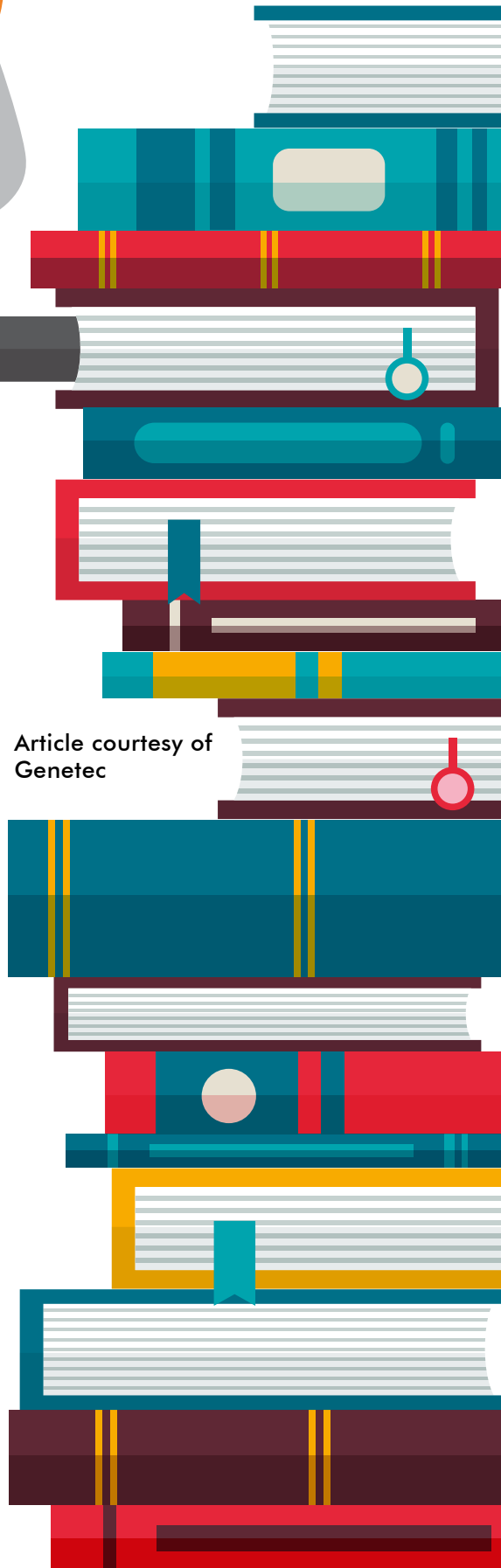
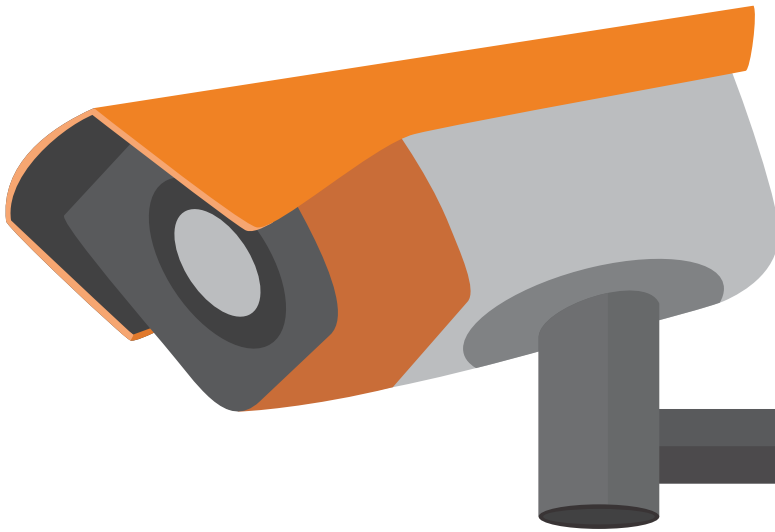
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BEST PRACTICES FOR SELECTING CAMPUS SECURITY SYSTEMS

Article courtesy of
Genetec

Introduction

Designing a proactive security system solution that focuses on event prevention allows a college or university to significantly increase both safety and security on campus. By implementing a proactive security system, higher education institution can still perform traditional forensic activities, including reviewing archived video recordings and accessing data, while also reducing the number and severity of crimes and incidents through the deployment of new technologies. In order to successfully address current and future campus security needs, it is important to develop a comprehensive detailed plan.

Step 1: Defining the problem

The first step in designing an effective security system solution is establishing an institution's specific safety and security needs. This sets Security Directors and Decision Makers on the right path toward purchasing and deploying a system that addresses real issues and concerns on their specific campus.



While state-of-the-art technology can be important, designing a system that addresses the specific areas of concern on a campus ensures that budget and resources are allocated effectively and that security departments provide the best solution to their communities.

The key is to have the right technology in the right place.

i. Risk assessment

Understanding the reality of safety and security breaches on campus is key in developing the right system solution. Compiling crime statistics is an ideal way to focus attention on a campus' major safety and security issues.

An institution should focus on crimes such as:

- » Violent crime
- » Manslaughter
- » Robbery
- » Burglary
- » Vehicle theft
- » Murder
- » Sexual assault

By first defining vulnerabilities, institution can establish design criteria for event prevention. Addressing these criteria will help solve the immediate security and safety problems on campus.

ii. Security by location

Having completed its vulnerability assessment, an institution can then determine the main locations where the security threats and safety issues are occurring, including places where crimes occur:

- » Parking lots
- » Libraries
- » Smart classrooms
- » Dorm rooms
- » Bike racks

An institution can also determine its areas of greatest vulnerability. Using their housing crimes statistics, one university discovered that elevator lobbies and lobby entrances were the prime locations for property damage and that the majority of reported thefts were occurring in the backpack storage locations outside dining areas.

During this step, a university or college should consider each location separately as well as part of the campus. An institution should also look at the security measures currently in place and evaluate their effectiveness.

iii. Geographical areas of vulnerability

In addition to developing strategies for improving security and safety at specific locations, an institution must also take into consideration the particular geographical features of its campus. This includes both the surrounding area of the campus as well as the interior types and arrangement of buildings and spaces.

The geographic location of a campus can have significant impact on its safety and security considerations. For example, an urban campus that is open to the downtown core and does not include a lot of student housing may have different concerns from a rural campus with a large percentage of students living on campus in dorms.

This analysis should also take into account areas on campus where students and property may be vulnerable, including buildings, common areas, areas of low visibility, classrooms, and parking lots.

iv. Equipment and product inventory

Next, an institution must take full inventory of the equipment and products installed as part of its current legacy security system. This step is essential for successfully addressing any security and safety vulnerabilities identified in the previous steps and for designing a system solution for protecting students and property. Also, having an accurate picture of the current security system makes it possible to identify those elements that can be re-used in the new advanced security solution.

v. Establish mission statement

Having defined its vulnerabilities, an institution is now in a position to write a mission statement that clearly states the primary goals for improving campus security. Given the pace at which technology is advancing, it is possible to lose sight of strategies and end goals during what can be a lengthy process of improving a university or college security system. By following the guidelines established in the mission statement, an institution can stay focused on aligning its security and safety needs with the best possible technology solutions.

Having determined the main crimes occurring on campus, the college or university should develop a mission statement in which each area of vulnerability is addressed.

vi. Identify stakeholder requirements

Prior to designing and deploying any system, an institution must develop a clear understanding of the various requirements that different stakeholders have relating to the implementation of a new security system.



In addition to municipal stakeholders, such as local law enforcement, fire departments, and first responders, other possible stakeholders at colleges and universities also include departments, and first responders. Other possible stakeholders at colleges and universities also include departments or groups who are responsible for:

- » Residential life on campus
- » Injury and illness prevention
- » University or college police department
- » Insurance and risk management
- » Property control
- » Rooms operations
- » Parking management

Focusing on student safety and policy enforcement, stakeholders who are responsible for residential life could require a security solution that quickly delivers information to members of their team and helps them deter, detect, assess, and delay any unlawful or potentially dangerous behaviour.

The requirements for injury and illness prevention could be a solution that assists in the investigation of injury correlations that would otherwise go unnoticed. Parking management might have requirements that are related to both parking enforcement and license plate data analysis. Other departments, such as those concerned with insurance and risk management or local law enforcement, might have simple forensic needs when it comes to a security system that includes video surveillance.

Step 2: Selecting systems and hardware

i. Legacy infrastructure and system parameters

Before making any decisions about new system elements, an institution must have an accurate picture of the infrastructure of its current legacy security system, including hardware, software, wiring and power. This list will enable an institution to have a clear sense of what elements can be re-used in the new system.

Defining current and future system parameters is also important. With a clear understanding of these parameters, an institution can design a system solution that meets all of its current and future needs. For example, in the case of a video surveillance system, while the current parameters may simply require reliable video recording and retrieval, a new proactive system solution might require live viewing and real-time event notification.

ii. Establishing lateral standards

An institution must now undertake a thorough review of any specifications provided by peers. Interdepartmental collaboration that involves gathering feedback concerning departmental procedures from peers throughout the institution, including IT services and maintenance is essential for ensuring best results.

When designing a security system solution, an institution should establish a clear set of system architecture and physical installation standards that outline in detail how the solution is to be deployed. The standards must take into account an institution's security and safety needs as well as any of its own technology-related requirements, which can include aesthetic concerns and maintenance standards.

iii. Draft technical and system design specifications

At this juncture, it is important to establish institution-wide standards concerning technical and system design specifications, including storage, system failover, and layout. These should also include installation standards and guidelines for system components, particularly as security systems solutions are installed and upgraded over time.

iv. Incorporate and align stakeholder requirements

An institution must also consider how to incorporate the previously identified stakeholder needs into the design of its security systems solution. Some requirements are quite straightforward, such as live feeds or video recording for forensic purposes, but careful planning is still necessary to ensure that the systems solution can satisfy those needs. Stakeholder requirements related to a proactive approach to safety and security can be more complex.

Another essential part of this step involves aligning all of the needs from the different stakeholders within one comprehensive design. Unifying these various requirements takes thorough planning and can help ensure that the system solution meets the institution's needs as it moves forward.

v. Propose new equipment

After determining which elements in the legacy system can be re-used and calculating the resultant cost savings, the university or college can propose any new equipment that needs to be purchased in order to meet stakeholder requirements and the goals set out in the mission statement.



vi. Establish system hierarchy

When designing a system solution, it is important to set a system hierarchy that clearly assigns privileges and responsibilities to all key personnel. For instance, if video surveillance is part of the systems solution being proposed, an important design consideration that will affect the amount and type of equipment and training required is to determine who will have access to live views and who will have access to video archives.

It is important for colleges or universities to establish a hierarchy of user profiles for their systems solution that clearly indicates the personnel and their associated privileges.

vii. System peripherals and future applications

The next step involves extending the proactive approach toward event prevention to include system peripherals, such as doors and perimeter security, as well as any future applications.

When considering system peripherals, one major university determined that perimeter photo beams and automated bollards were key components that would allow the university to address its specific safety and

security needs. As part of its system solution, photo beams were presented as affordable peripherals that would provide reliable perimeter control and enhanced security operations. Only because automated bollards would allow for operations to be managed remotely, provide traffic flow monitoring, and increase reaction time to incidents, they were also integrated into the systems solution design.

Planning and setting goals for the long term

i. Maximising system resources and improving situational awareness

In this step, an institution should look into ways to get the most from its system resources to improve situational awareness. As part of the process of future proofing its security system, an institution should also consider different possible ways in which it could improve situational awareness in the future. For example, by taking advantage of existing camera locations, an institution could use video analytics to identify high-traffic areas that pose safety and security risks and then develop effective proactive solutions, such as integrating turnstiles in order to eliminate tailgating or introducing card-readers to provide better accountability of building occupants.





ii. Aiming for further reductions in reaction/response time

As part of the proactive approach to campus safety and security, an institution should continually investigate ways to use new technologies to reduce response times in the case of emergencies. Instead of relying on applications to simply solve problems, it is important to learn how to use current and future technologies to assist in the maintenance and continual improvement of a campus security systems solution.

iii. Vendor and solution selection

Once an institution has completed each of these steps, all of the stakeholders can be confident that their requirements have been considered in order to create a long-term, comprehensive, future-proof plan. It is at this stage that the university or college can begin the vendor and solution selection process.

During this process, in addition to the developed plan, the institution should take extra considerations into account. For example ensuring that the solution is non-proprietary and open architecture, making it easier to expand or modify the system architecture in future. Furthermore, choosing a solution provider with technology partners in such areas as asset management,

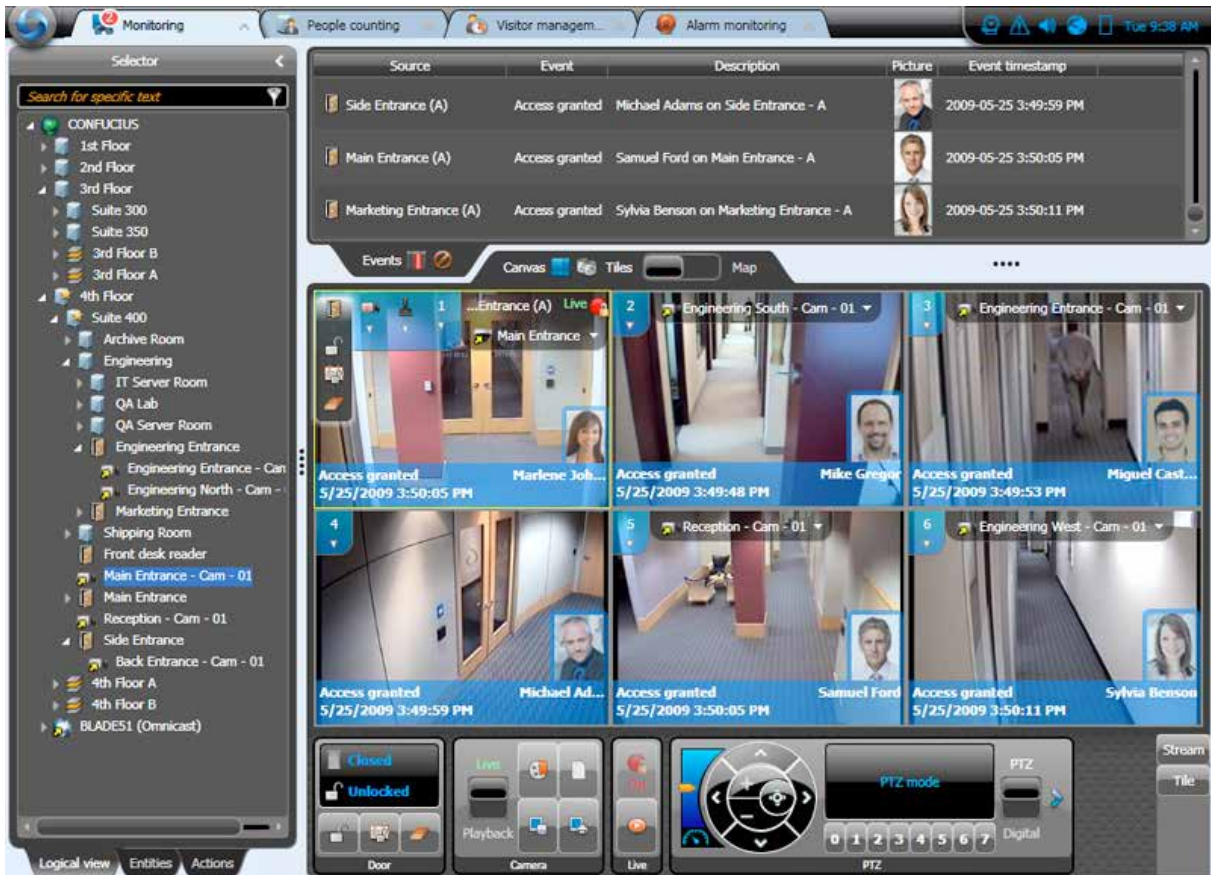
human resource and visitor management to ensure greater flexibility and more options during migration and when undertaking any future system expansion or modification.

Genetec and campus security

Security monitoring solutions from Genetec are ideal for the higher education market. Genetec offers scalable, open architecture, and hardware agnostic solutions at an affordable initial start-up cost that make it possible for institutions to:

- Leverage their existing legacy systems
- Phase in technology upgrades
- Realise unlimited geographic growth

With Genetec systems solutions, colleges and universities can provide a safe and secure environment for students, staff and visitors through unique features and functionalities, including community resource sharing and unified multi-system management.





Omnicast

The Omnicast video management system from Genetec is recognised in the security industry as a leading solution for enterprise video management, providing customers with enhanced live monitoring efficiency through advanced features and IP video system flexibility.

Omnicast offers cutting-edge live monitoring capabilities and pre-programmed alarms tied to other business systems that alert security personnel to events that require attention. Then, by using maps to pinpoint nearby devices, they can move PTZ camera angles and get a better view of the situation.

To help eliminate the possibility of missing footage, Omnicast offers Archiver failover to ensure reliable video recording. It also features Active Directory, a tool that can help colleges and universities to better manage user credentials and reduce double entry. IT departments at higher education institutions can also use Omnicast can to help create a single sign-on environment.

Synergis

Synergis - the open and flexible IP access control system (ACS) from Genetec enables higher education institutions to secure campus doors across hundreds of buildings. In an emergency situation, Synergis provides simple one-click lockdown and threat level management, which triggers specific system actions that help operators efficiently handle any situation.

Due to the fact that Synergis is an open ACS, institutions of higher education can choose their preferred brand of door readers and controllers and leverage new wireless technologies. Using this flexible access control system, colleges and universities can create multiple cardholder groups with unique privileges, design custom badge templates, and enroll visitors in seconds.

AutoVu

AutoVu, the leading-edge automatic license plate recognition (ALPR) system from Genetec, can help institutions to generate revenues and offer better service by improving parking services enforcement. With AutoVu, colleges and universities can efficiently manage time limit and parking permit enforcement as well as lot counts. AutoVu can also be used on campus for surveillance purposes.

This easy-to-use LPR system can also be integrated with third-party ticketing software. In only months, many institutions have seen significant returns from their AutoVu LPR investment.

Security Centre

Genetec offers a truly unified security platform that enables institutions to continually optimize their operational awareness. For example, using Security Centre, institutions can combine information from their access control and the video surveillance systems to realize event driven video.

By taking advantage of the open source solutions offered by Genetec, institutions are able to apply their security systems to developing business solutions by capturing data and using it to enhance operational efficiency.

The UI in Security Centre is so intuitive that it makes training and operating easy. One institution employs students to monitor its video feeds and, as a result, has to train new personnel every year. Within days, the students are fully trained and able to contribute to campus security.

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www.genetec.com SST



Dahua Display And Control Solution

Simplifying the display of multiple cameras from multiple sources has always been a challenge. Early analog systems used multiplexers and matrix switches coupled with many monitors. This created great complexity and cost. Control rooms were very large areas that required many operators. Energy to operate these control rooms was very high. Today, modern technology has enabled the simplification of the control room and the display of video sources along with other vital information.

As the industry migrates from traditional analog devices to IP network devices, consolidation of equipment is shrinking the space requirement for control rooms. The use of TCP/IP connectivity is enabling the linking of information systems such as weather, traffic and other agency data along with the video feeds. New display technology now allows multiple images to be put together on a single display or span many displays. Content can now be dynamically assigned and moved throughout the control room display wall. LED monitors are now more energy efficient and are more durable when viewing 24/7 without the common “burn-in” issues.

As a total solution provider, Dahua Technology provides front-end cameras, NVRs, DVRs as well as complete control centre solutions. Let us take a tour of the Dahua display and control solution enabled by our next generation of TCP/IP devices including matrix switches, LED display walls, cameras, NVRs and storage solutions.

Splicing video wall

Dahua has been a manufacturer of video wall solutions since 2007. They have one of the largest splicing video wall providers in China. Dahua is ranked second with 9.1 per cent market share in the industry.

Splicing video walls normally use LCD screens (LED backlight) with a very slim physical bezel, which is quite important when displaying an image across several monitors. The most common bezel in the market is around 5.5 millimetres. Dahua is proud to offer industry leading bezel sizes from 3.5 millimetres. Their video wall monitors are available in 46 inches and 55 inches panel sizes. Our displays have brightness levels from 500 nits to 700 nits to ensure a good view in all ambient light settings. All of their display panels are designed specially for 24/7 operations.



Figure 1 – Dahua 55 inches LCD Video Wall

The surveillance industry requirement for video splicing walls far exceeds the requirements of digital signage applications. The surveillance application requires many types of inputs from devices including: IPCS, DVRs, NVRs; local HDMI/DVI/VGA video signals; and the number of channels are often above 200. The ability to view many inputs with a single output or arrange inputs and outputs to meet the specific requirements can be challenging.



Network video matrix – a video wall controller that fits all scenarios

In order to meet those tough requirements, Dahua utilises its experience of network video encoding and decoding technology in video matrix development. Currently there are several technologies of video wall display in the market.

One way is using PC based or server based hardware to extend some graphic cards and develop software to control the output of the graphics card (it is called “virtual matrix” by some VMS vendors). Virtual matrix switches have specific disadvantages. Operating System vulnerabilities, graphic card limitations, and limited scalability made this solution less than optimal.

Dahua network video matrix is an embedded hardware specially designed for video wall solutions. The Advanced Telecom Computing Architecture (ATCA) offers a redundant design for many important parts, such as fans and power, which greatly enhances its reliability and stability. In order to lengthen service life and make repair easy, we use modular design. The matrix consists of three parts: mainframe, encoding card and decoding card. The mainframe offers power, control, network and high bandwidth backplane for different cards. For the encoding card, we offer multiple kinds of video interfaces including HDMI/DVI/VGA/HDCVI/CVBS and more.

It is easy to input any kind of supported signal to this matrix with just the selection of the corresponding encoding card. Besides all these local video signals, it also has a great capacity for network video streams such as IPCs, NVRs, DVRs and others. For the decoding card, it provides high network video decoding ability and offers the video output channel for both network video and local video signal as well. For pure network application, one matrix can decode 160ch@1080P/640ch@D1 network video streams and support up to 40 screens.



Figure 2 – Dahua Network Video Matrix



Figure 3 – Dahua Network Video Matrix

Combine this network video matrix with the video wall to provide a perfect solution for centralised visualization in surveillance application.

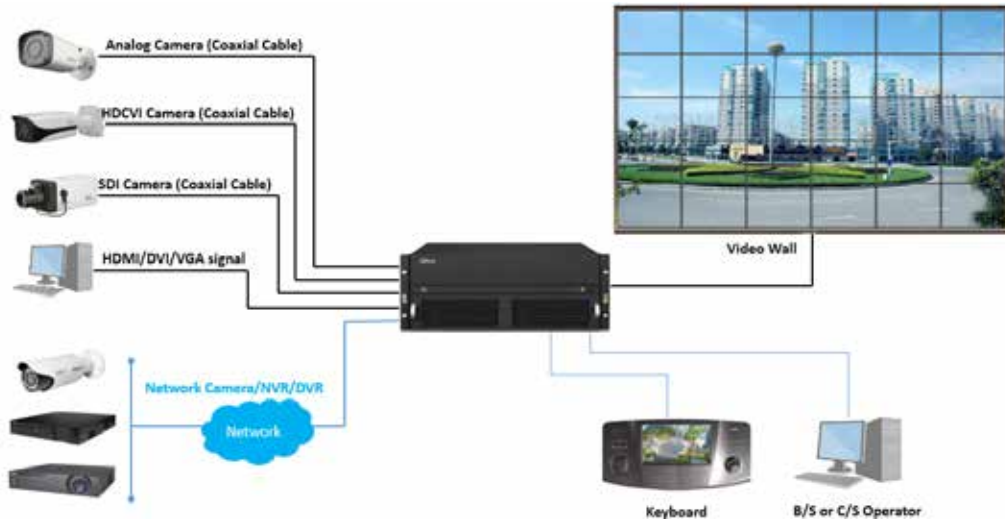


Figure 4 – Dahua Video Wall Solution

Another interesting trend

In splicing video wall applications, LCD and DLP technology has already matured and being widely used in the market for several years. However, the LED modular technology comes into this market, growing with increasing share. DLP usage has dropped with the trend inclining towards LCD and LED Modules. The smaller pixel pitch of LED Modules is leading to higher adoption for indoor use. LED Modules have compelling advantages including: no physical seams, 281 trillion gorgeous colours, high brightness, high refreshed frequencies, long lifespan and easy maintenance. With reduced costs, LED Modules will become a new driving force in video wall applications.



Figure 5 – Dahua Video Wall Solution with LED and LCD

Conclusion

LED Modules are being used today for many indoor applications, for example, at performance venues, advertising purposes, information display and promotional video. Hybrid systems of LED Modules and LCD displays are being used more frequently in surveillance control room applications.

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

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messe frankfurt



MicroEngine's POE Powered Encrypted IP One Door Access Controller



MicroEngine is the trusted brand in Integrated Security Solutions in Malaysia and Singapore, which has plenty of experience in many large-scale projects, in both private and public sector. MicroEngine is launching the POE powered Encrypted IP One Door Access Controller P1000i with an onboard integrated POE power supply circuit with charger and dedicated Fire Alarm Input.

People are more sensitive to environment impact on the things that they do now, and are more interested in using greener products. In security system, Power over Ethernet (PoE) is one of the solutions to this. PoE is a technology that provides both data and power connections in one cable. Doing so minimises the number of wires that must be strung in order to install the network and power. Hence the result is more cost effective, less downtime, easier manageable and maintenance, better configurability and greater installation flexibility than with the traditional wiring. We are now offering Power over Ethernet (PoE) on our access controller – P1000i.

Our P1000i POE Access Controller supports our in-house PLATO readers on RS485 connection, which gives you the

options of multiple mode of reader only, reader + keypad or a reader + keypad + color LCD operation, which means the door, can be configured to operate on different entry access mode at any time. It has 4 supervised inputs, 1 for door sensor, 1 for push button. The other 2 are general purpose inputs which can be used as alarm input or event triggered input. It has built in DEDICATED Tamper Switch input and Fire Alarm input for higher standard requirements. Also, the IP communication is encrypted with AES128 with dynamic key exchange to increase the security. P1000i supports both push and pull communication methods.

On top of this, it provides 2 Wiegand / ABA reader inputs that support 64 bits card numbers for better security, the more digits it can read, the lower possibility of reading duplicate card number. This will reduce the chances of card number duplicates in large card based installation. P1000i supports up to 10,000 card user database and 50,000 transaction records. Our reader, the PLATO reader, has the options of Prox, Mifare and Mifare DESFire.

For more information, please visit: <http://www.microengine.net> SST



Stratel

Customise SECURITHOR Interface And Personalise SECURITHOR'S Workspace The Way You Want It

SECURITHOR is the software you need to monitor alarms, for operating a Central Station or the Response Center of your Company. SECURITHOR presents a complete dashboard to operators handling alarm signals along with steps and contacts to process each signal.



SECURITHOR automates several tasks such as sending emails, sms, notifications to Android phones and reports to subscribers. It is made to add value to your Central Station by proposing services to your subscribers such as Web Access and Panic buttons for smartphones.



Easy scalability

SECURITHOR is used by many start-ups as well as confirmed Centrals with more than 50, 000 accounts. SECURITHOR is built to follow your CMS and not the other way around. Start with the number of stations you need and add more stations when you need them. You can plan your network installation ahead and spend only when you need it. Scalability also means you can jump from Single Station to Network Operation easily. It also means you can add modules such as Weboperator or Web Access Module for your subscribers when you need them.

Integrations and interfacing

SECURITHOR development staffs are in constant contact with industry leaders. Direct access bridges are also available for Frontel from Videofied and ACC Video from Avigilon.

Direct integration for manufacturers such as Hikvision, Dahua and Oncom are available for SECURITHOR.

The software is available in 3 versions: Core, Premium and Network. Several features can be incorporated such as interface to SIP or Asterisk phone systems, Dual Servers, Web Access for alarm installers or Virtual Panic Buttons for PC and Smartphones.

Stratel as the distributor in Malaysia and South East Asia for MCDI Securithor, with the assistance from both Stratel and MCDI in Canada, it is possible to get support coverage around the clock.

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



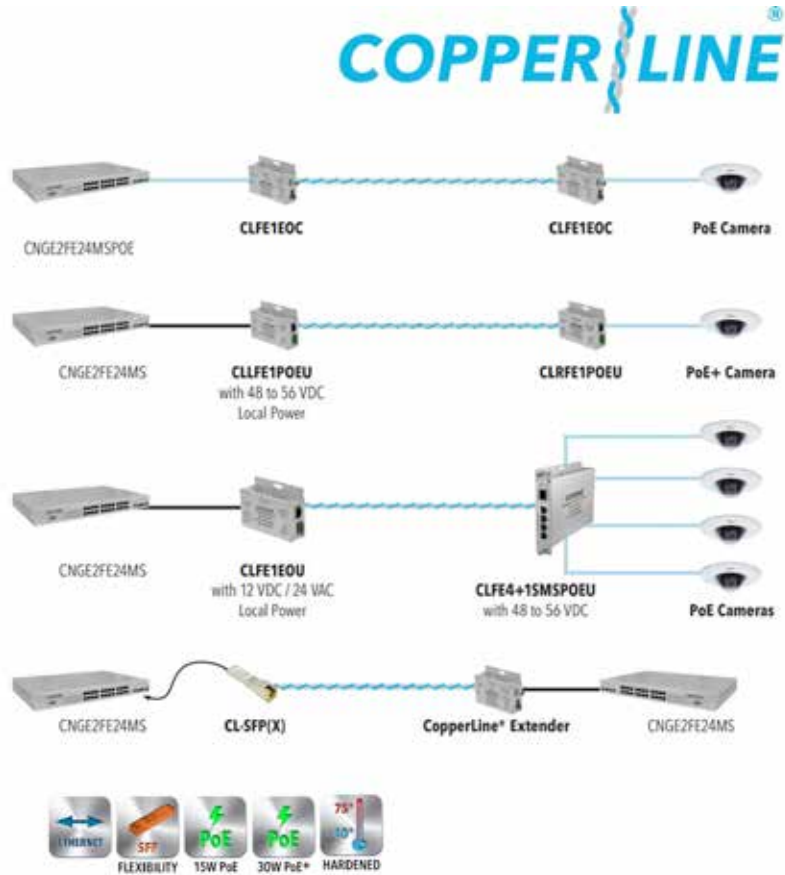
ComNet Introduces Innovative Ethernet Over Copper Line

ComNet now offers two distinct CopperLine products that feature different power over Ethernet capabilities. The first, the CLFEOC line is the upgraded version to the existing CopperLine products, offers extended distance transmission with pass-through PoE meeting the IEEE802.3af standard.

The second line, the CLFEPOE series can act as a PoE power source (PSE), injecting IEEE 802.3at PoE+ to powered devices as well as support for pass-through POE+.

These products are designed for applications where existing copper media, such as coaxial cable or twisted pair (UTP) is currently installed and are cost-effective alternative to installing new media.

CopperLine PoE series is designed to be a PoE power source and can supply 30 watts of PoE+, perfect for many of the network devices that require higher power to operate or can operate in pass-through power mode. CopperLine will consist of 1, 4, 8 and 16 channel models that utilises coaxial cable or twisted pair.



CopperLine is made in the USA and comes with a standard Lifetime Warranty.

For more information, please visit: www.comnet.net SST



BOSCH

Invented for life



The AUTODOME IP Camera Family From Bosch

Bosch launches its new AUTODOME IP 4000 and AUTODOME IP 5000 models, extending its already comprehensive family of pan-tilt-zoom (PTZ) cameras.

These motion control cameras help to locate, track and zoom in on details providing relevant information that enable operators to react instantly and take accurate decisions. They add precise identification of objects of interest over large distances and hands-on control to all kinds of video surveillance solutions.



The AUTODOME IP 4000 and 5000 HD cameras

The AUTODOME IP 4000 HD camera is designed to perfectly blend into the interior design of various applications and can identify objects of interest up to 95 metres away in full HD all thanks to its 12x optical zoom capabilities.

The AUTODOME IP 5000 HD is ideal when covering larger area both indoor and outdoor. Full pan and tilt control with the 30x optical zoom capabilities enable

identification of objects of interest up to 190 metres away in full HD. For low light conditions, the AUTODOME IP 5000 IR camera ensures visibility up to 180 meters even in complete darkness. The AUTODOME IP family offers the opportunity to tailor and scale IP video solutions to fit specific needs.

Built-in intelligence ensuring perfect exposure and lower network strain

The AUTODOME IP cameras feature Intelligent Defog to considerably improve the camera's visibility when viewing foggy or other low contrast scenes. Intelligent Dynamic Noise Reduction reduces bitrates by up to 50 per cent to significantly reduce storage costs and network strain. Local storage inside the camera further enhances network performance by compensating for short network outages, ensuring that video data is continuously available in Video Recording Manager (VRM) systems.

Since security managers cannot be in the control room at all times, the AUTODOME IP cameras fully support Dynamic Transcoding technology from Bosch, which – in combination with the Bosch Video Security app – provides 24/7 remote access to camera controls, live video streams, recordings and HD images from anywhere, regardless of available bandwidth.

The AUTODOME IP 4000 and AUTODOME IP 5000 cameras will be available worldwide from June 2015.

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



Dahua Launches Eco-Savvy 2.0 Series PTZ Cameras

Dahua Technology's Eco-Savvy 2.0 series PTZ cameras are now available. The Eco-Savvy series offers SD59 and SD50 models, which has features that are energy-saving, 30x optical zoom capability, as well as smart features to make surveillance easier.

The Eco-Savvy 2.0 series PTZ camera offers users an excellent surveillance option for high-resolution and clear video monitoring as both provide long range visibility, 24 hours a day under all lighting conditions.

Faster speed and compact in design

Compact in its design nature, the cameras are measure at just 5 inches allowing it to operate at a faster speed than average. It provides a maximum pan speed of 400 degrees per second and a maximum tilt speed of 300 degrees per second.

Smarter

The Eco-Savvy 2.0 series PTZ cameras are engineered with a smart detection function, which can progressively detect moving object and alarm within the camera's area of coverage and with 100 per cent accuracy.

Better

The SD59 supports a maximum of 100 metres IR distance. It supports IP66, which ensures the camera can withstand even the harshest weather environments.

Even without IR supporting capabilities, the SD50 is still extremely effective in capturing the most minute-by-minute activities when being deployed. In addition the cameras are also IP67- rated (weather proofed) and IK10-rated (vandal-proofed) and this can effectively prevent violent destruction.

This series are suitable for a variety of fields such as schools, hotels, parks, shopping malls, supermarkets, factories, urban roads and many more. Integrate with Dahua's advanced technology as it offers high quality, safe, durable yet at affordable pricing.

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





Face Recognition Access Control Made To Handle All Environment

- REVOFace takes face recognition for access control, manpower reports & facility reservation system to an entirely new level of performance
- REVOFace provides reliable 1-to-1 and 1-to-N matching in all lighting conditions, indoor and outdoor across a wide temperature range
- REVOFace is a fully embedded system that verifies in less than two seconds - equal to or faster than other biometric devices

REVOFACE



RFace10,000

Features

- Interfaces with a multitude of existing Access Control systems using industry standards
- Enhanced security through audit trail of transaction images
- TrueLife Liveness Detection means the REVOFace cannot be fooled by any photograph or electronic image
- Supports user heights from 150cm to 195cm in a single device
- Colour touchscreen & intuitive menus and video intercom
- XID patented full-face algorithm firmware
- Supports common card types including 125kHz & ISO14443 RFID such as Mifare, Felica plus NFC-capable devices.
- Hygienic non-contact means of access control
- REVOFace replaces multiple door mounted security products with a single device

Benefits

- Scalable from a single unit installation to a large Enterprise system
- Easily integrated into Access Control, Time & Attendance, Facility Reservation system & Mechanical & Electrical Building services

For more information, please visit: www.xidtech.com **EST**



ABLOY's Traka21 Stand-Alone Key Management System

The Traka21 authorises, secures and monitors all of your keys, automatically controlling and recording when a key is used and by whom – information which is made available either through the cabinet's display or by export on a USB pen drive.



It is a sophisticated stand-alone key management system, which combines innovative RFID technology and robust design to provide small and medium sizes businesses with the advanced management of 21 keys or keysets in an affordable plug and play unit.

No ordinary key management system

Traka21's innovative plug and play system provides small to medium size businesses with the very latest in intelligent key management.

Simple, efficient and cost effective, Traka21 helps trace and account for every key or keyset, which are individually locked in place, ensuring that critical business operations are never jeopardised. Easy installation with simple operating instructions makes Traka21 the idea solutions for many first time user(s).

Traka21 key features

The Traka21 comprises of user, key and access rights administration and multilingual functionality. It uses a screen-based audit trail and reporting capability or export via USB port. Traka21 is made of robust and compact aluminium and ABS housing with no exposed hinges or obvious access points. Users can manually operate the override and door release functions in case of emergencies and produces loud audible alarms.

For more information, please visit: www.traka21.com or email to abloy.sea@abloy.sg **SS7**

Model: True Radar Controlled CCTV Surveillance Camera

By: **360 Vision Technology**

① www.360visiontechnology.com

- Unique Integrated Radar & Predator 1080p HD Camera
- Cost Effective Perimeter / Wide Area Surveillance up to 200m Radius / 400m Diameter Constant Surveillance.
- Predator Radar is designed for applications where wide area detection and tracking of moving objects is required
- Predator Radar does not need visual clarity and therefore works in all weather conditions – rain, fog, snow, mist, coastal and as well as extreme hot and cold climates.
- Predator Radar scans 360 degrees twice every second to detect and automatically track up to 40 simultaneous objects.
- Multiple objects can be tracked using sophisticated and intelligent “Time Share” alarm handling – ensuring ALL alarms are evenly or priority handled.
- Alarms are overlaid On Screen to notify the operator that a target is being tracked, even when the camera is looking elsewhere.
- Incorporating software features such as controlling Predator Intelligent Illumination to give White Light “spotlight” tracking for Human activation or Infra Red for vehicle activation.



Model: BU-3028-IVS

By: **AirLive Security**

① www.airlivesecurity.com

- 3 to 10.5mm Smart Focus Motorised Zoom Lens
- 25m Smart IR LED
- Digital Video Stabilisation
- IP66 and IK10 Protection with Anti-fog Front Cover
- MicroSD Card Slot for Local Storage
- Clear Motion Technology for Moving Objects
- WDR Enhanced
- Built-in Intelligent Video Analytics Including Face Detection, iMotion Detection, Trip Zone, Object Counting, Face Recognition, e-Fence





Model: RX-32

By: Associated Industries China, Inc.

① www.agneovo.com

- 1920 x 1080 FHD display with NeoV Optical Glass and Anti-Burn-in technology
- Versatile connectivity (VGA in/out, DVI in/out, HDMI, DisplayPort, BNC in/out, S-Video, Component, Audio in/out)
- Built-in Scheduler and Speakers (10W x 2)
- Tiling function for easy video wall setup (supports up to 5x5)
- Flexible display orientation: portrait/ landscape
- NTSC/PAL/SECAM video system support
- RS-232 (in/out) and RJ45 for display control from a remote location
- Durable metal casing and mission-critical 24/7 applications



Model: MD-H600Np-360 DN

By: Brickcom Corporation

① www.brickcom.com

- Built-in 180 degrees Panoramic View and 360 degrees Surrounding View
- Support HDTV Video Quality (6M @ 20fps Streaming)
- IK10 Vandal-proof and IP67 weather-proof outdoor enclosure
- EN50155 certified for transportation application
- Brickcom's WDR enhancement technology
- Support i-Stream to save storage space smartly and effectively
- Built-in Micro SD / SDHC / SDXC memory card slot for local storage
- Built-in Microphone/Digital input/Digital output/Audio in/Audio out supported



Model: GTC-162 Full HD 1080 (Plus series)

By: Global Top Technologies (M) Sdn Bhd

① www.gtc.my

- | | |
|---|--|
| <ul style="list-style-type: none"> • 2 Megapixel • Full HD 1080p real-time + D1 real-time • Smart IR Mode, 30pcs IR LED • IR LED Module (Distance up to 30m) • Digital WDR | <ul style="list-style-type: none"> • Slow Shutter • Day/Night (ICR) • 3D Noise Reduction • Vandal-Proof Housing • ONVIF supported |
|---|--|



Model: Canon VB-R11VE

By: Canon Singapore Pte Ltd

① www.canon.com.sg

- 360 degrees Endless Panning with Fast, Accurate Pan/Tilt Mechanism
- 30x Optical Zoom with High Ultra-Low Dispersion Lens Element
- Moving Subject Auto Tracking with Auto Zoom
- IP66 Rated & IK10 Vandal Resistant Enclosure
- 1.3 Megapixels High-Sensitivity CMOS Sensor with Exceptional Low-light Performance
- Advanced DIGIV DV III Image Processor to help maximise image quality
- Haze compensation, Smart Shade Control and Auto-Gain Control Limit
- Area-Specific Data Size Reduction (ADSR) to maintain video quality in important areas while reducing Bandwidth usage



Model: HLC-7BKQ Outdoor Bullet IP Camera

By: HUNT ELECTRONIC CO., Ltd

① www.hunt.com.tw

- 4 Megapixel IR Bullet Real Time IP Camera
- H.265/ H.264/ M-JPEG Compression
- ROI Function
- External Vari-focal Lens Adjustment
- Digital Noise Reduction
- Power over Ethernet
- IR LED Built-in 30M
- IP66



Model: Spectra Enhanced

By: Pelco by Schneider Electric

① www.pelco.com

- Full HD 1080p 60 fps with 130dB WDR
- Easy to drive, low latency PTZ
- Single cable installation (HPOE, PoE+)
- 32GB local recording via SD Card
- Vivid Imaging Mode
- Visibility Enhancement Mode
- 5 White Balance Modes
- ONVIF Profile-S and Profile-G Conformant





Model: Surveon NVR3308 Full HD RAID NVR

By: Surveon Technology, Inc.

① www.surveon.com

- Support 16 to 32 channel 1080P recording
- Support 8-bay SATA hard disks
- Support NAS and iSCSI storage expansion
- Built-in RAID 1, 5, 6 function for data protection
- Built-in enterprise VMS and advanced video analytics
- Built-in dual display for local live view
- Easy remote view with web client and mobile client
- Easy installation and configurations with wizard



Model: LONGSPAN VLS-1P-B & VLS-1P-C

By: Veracity UK Limited

① www.veracityglobal.com

- Long range point-to-point Ethernet over regular Cat 5 or Cat 6 cable
- Unrestricted 100Base-T with POE at over 800 metres
- POE version delivers full POE Plus power at 800 metres
- Ruggedised for high performance over extreme temperature range
- Fully automatic - no configuration required
- Smart power and diagnostic display for reliable installation
- Fully automatic, simple to install and maintenance-free



Model: YVS-PC01

By: Yudor Technology Co., Ltd

① www.yudor.com.tw

- Innovative integration for surveillance, human contour detection and tracking technology
- 2D real time image with 90 to 98 per cent counting accuracy
- Accurate bi-directional counting & reporting
- Synchronous updates for data statistics & analysis
- Combining data from multiple cameras in different entrances
- Support data streaming to client's database system
- Wider range installation from 2.1 to 5 metres

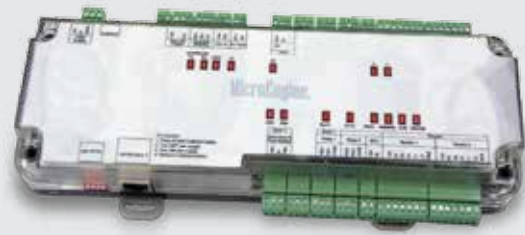


Model: GLS100 Encrypted IP DesFire 1 Door Controller

By: MicroEngine Technology Sdn Bhd

① www.microengine.net

- Next generation IP based access control solution
- 64 Bits Unique Card ID matching
- End-to-end security
- Triple des (3DES) & AES 128 encryption
- Plug & play easy system setup
- Not identification by serial number



Model: AX300

By: Axxess Identification Limited

① www.axxessid.com

- IP access control - 2 readers/doors per controller
- Environmental monitoring – 6 sensor ports (mix & match any combination of sensors)
- Built-in monitored power supply with 2 x 1.5Amp 12v DC lock outputs, 2 x 100mA timed outputs, 1 x 1 Amp 12v DC auxiliary output for 3rd party equipment
- Optional battery back up
- Single box solution
- Remote site monitoring – LAN/WAN support
- 4,000 cardholder capacity – expandable up to 32,000 per controller
- 9 inputs and 9 outputs



Model: BQT Miniguard BM682

By: BQT Solutions (SEA) Pte Ltd

① www.bqtsolutions.com

- 7 – 16 VDC regulated
- Power consumption of 45ma to 135ma
- Card read range: 20mm to 40mm
- Operating temperature: -25 degree Celsius to 65 degree Celsius
- Reader dimensions: 84.55mm (L) x 42.95mm (W) x 20.7mm (D)
- Internal and external buzzer control
- Colour finish: charcoal





Model: Primacy

By: Evolis Asia Pte Ltd

① www.evolis.com

- Specific model with an open output hopper for unattended counter operations such as event or loyalty management
- Low-card sensor to let you know when your feeder is almost empty.
- A UHF encoding option ideal for long-range access control, transportation or vehicle identification applications
- Extended memory size & printing resolutions for a sharper definition of images and texts
- New update verification wizard to allow the user to quickly verify if a driver of firmware update is available and to install it in a few clicks.
- Brand-new SDK, available free of charge, to facilitate and speed up the integration of the Primacy into IT systems, allowing remote supervision of the printer



Model: UL275-WR Electromagnetic Lock with Magnetic Contact

By: UWC Electirc (M) Sdn. Bhd.

① www.uwcelectric.com

- WR-Series Em Locks are integrated with Door Status Monitoring Function (DSMF). DSMF is providing door opened & closed signal
- With built-in Magnetic Contact on electronic panel to provide consistent performance
- Integrated Lock Status Monitoring feature (LSMF) with built-in bond sensor.
- Zero Residual Magnetism
- Dual Voltage Operation – 12Vdc / 24Vdc
- Ease of installation with low maintenance & low power consumption made it become a cost saving product





Model: F21

By: ZKTeco Limited

① www.zkteco.com

- 2.4 inch TFT colour screen
- SilkID fingerprint reader with living object detecting function
- Multiple verification modes
- Full access control features: anti-passback, access control interface for 3rd party electric lock, door sensor, exit button, alarm and doorbell
- Camera function: record photo and photo ID (optional)
- Built-in auxiliary input with enhanced flexibility to link with wired detector or emergency switch



Model: Metal Standalone Keypad Access Control K5

By: SIB Technology Co. Ltd

① <http://www.sib.net.cn/>

- Strong Zinc Alloy Electroplated anti-vandal case
- 2000 uses, supports Card and PIN
- Can be used as a standalone keypads, backlight keys
- WG26 output for connecting to a controller, input for connecting with a reader
- Very low power consumption (30mA)
- Fast operating speed, <20ms with 2000 users
- Lock output current short circuit protection
- Built in light dependent resistor (LDR) for anti-tamper



Model: SR500

By: Sun Castle Global Precision Technology Co., Ltd

① www.scglock.com

- Intelligent auto-locking function
- One card solution: 13.56MHz platform
- Adopt RFID Mifare encryption technology that raises security
- 2 unlocking methods: card and override key
- Card memory remains after battery replacement
- Passage mode function
- Battery low alert
- Standalone and wireless with easy installation





Model: FV Multibio

By: Dytronic

① www.dytronic.com

- The first Multimodal FingerPrint & FingerVein device in the world with the combination of multitouch screen for enhanced interactivity for time attendance and high security applications
- FV multibio can be loaded with unmatched combined functionalities including but not limited to built-in camera, microphone, speaker, 3G, WiFi, Bluetooth, lithium battery, RFID, USB flash, micro SD, IP 65 and PoE
- Anti-tamper & anti pulling switches to activate an automatic deletion of biometrics data linked to a small factor battery
- Server connecting to real IP of device and device connecting from within private networks back to the server
- Access controller functionality in small factor such as door sensors, scheduled release of doors, smart backup battery switching between secure or operation mode in case of power failure and no reported attacks
- Intercom with two-way communications using IP networks



Model: IXM TOUCH

By: Invixium

① www.invixium.com

- IP65 rated
- iCLASS, MiFARE, DESFire, DESFire EV1, HID & EM Prox card support
- Operating temp -20 degree Celsius to +60 degree Celsius
- 500 dpi Optical sensor
- Presence Detect proximity sensor
- In-built relay for Single Door Control (Max rating 1A @ 30VDC)
- Anti-Shock Vandal Protection
- Wiegand I/O with customisable formats up to 512-bits





Model: SSF100 Resilience Bollard

By: Avon Barrier Corporation Ltd

① www.avon-barrier.com

- Physically impact tested to IWA 14-1:2013
- Believed to be the world's first impact tested Super Shallow Foundation bollard with a foundation depth of just 100mm
- Unobtrusive in appearance therefore adaptable to surrounding aesthetics
- Alternative sleeve options
- Modular Design to accommodate uneven surfaces, inclines, right angles or curves in bollard lines
- Designed to provide standoff Hostile Vehicle protection for infrastructure without the need for deep foundations
- Manufactured from heavy gauge materials
- Avon Barrier has other bollard options available, both static and rising



Model: Intrusion Detection Device

By: Good Will Instrument Co. Ltd

www.instekdigital.com

- Wide range of tracking features, such as; intrusion, gate flow, area account, occupancy rate, hot zones, ATM, left object, stolen object, loitering, panic disorder, slip fall, counting, average speed, stationary vehicle, wrong way, smoke fire, face detection, LPR, skimmer detection, parking lot and thermal.
- State-of-the art image processing for automatic and real-time video
- Seamless integration with Instek Digital VMS Command Center
- Turning passive video into highly accurate discernible tool
- Latest video analysis algorithms and methods for the most performing results
- Ideal solution for prevention, tracking, information collection for surveillance and commercial needs





Model: Inferno Intenso

By: **INDUSEC AB**

📍 www.inferno.se



- It can function as both a sound barrier and as a traditional siren
- Works with all types of alarm systems
- Sabotage protected with battery back-up
- Directional or to protect a volume up to 150 cubic metres/5250 cubic feet
- It has a unique intolerable attention getting frequency pattern that clearly stands out from background noise
- Easily retrofitted to significantly upgrade the effectiveness of existing security systems
- It has a battery lifespan of 3 years
- Standby without charge for up to 1 month

Model: Enforcer 32-WE APP

By: **Pyronix Limited**

📍 www.pyronix.com

- Highly sensitive antenna enables superior 1.6km wireless range in open space
- Control and monitor your entire Enforcer 32-WE APP security system from anywhere in the world on your smart device via the PyronixCloud and HomeControl+ App infrastructure
- Receive and customise push notifications from your system
- View the system status of every sensor in real-time, including: alarm, CO and smoke detectors
- Utilise the full multi-award winning two-way wireless Enforcer range of peripherals, designed to provide the highest security reliably and safely
- Installation is made easy with signal strength indicators and one-push-to-learn features on every peripheral
- Highly secure 128-bit wireless protocol encryption ensures effective anti-code grabbing and multiple attempts at message delivery between the panel and the peripherals, while AES 256 encryption between the HomeControl+ App and PyronixCloud keeps communications safe
- By setting up an account on PyronixCloud, there is no need to set up static IP addresses or configure the network connection on site





Model: thewall. NEWYORK

By: **Proyteca Security**

① www.proyteca.net

- Exclusively designed structure and mesh folding to prevent sabotage and climbing
- Patented technology used for the anti-jump sensor, which minimises false alarms and provides consistent detection around the perimeter without requiring regular re-calibration
- Sensor devices and electronics integrated into the fence design to reduce installation and integration costs
- Sensor devices are camouflaged and hidden in the actual fence.
- No false alarms on intrusion detection
- High-density mesh ready to detect cuts or destruction
- All parts are galvanised and coated with enamel to protect them against corrosion and ensuring durability



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.



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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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Model: Multi-Service Ethernet Switch Series – AMG 9000 series

By: AMG System Ltd

📍 www.amgsystems.com

- Ruggedized Layer 2 Switch with additional functionality
- Transmits Gigabit Ethernet - Dual Speed SFP Combo (100 and 1000 Mbps) and supports Rapid Spanning Tree Protocol and IGMP Snooping
- Takes serial data (i.e. fence detection, contact closures, access control, general alarms)
- Has a built in encoder for analogue video via BNC input
- Single and Dual Fibre Operation - Redundant ring topology
- Supports 30W PoE+
- ONVIF Compliant and compliant with all IEEE 802.3 variants
- 'Plug-and-Play' installation, easy to maintain, extended operating temperature compared with industry equivalents -20 degree Celsius to +70 degree Celsius



Model: CRS15

By: Avon Protection

📍 www.avon-protection.com

- CRS15 pack provides equipment for comprehensive CBRN and HAZMAT personal protection and decontamination, all sealed within a small rucksack
- The system is an all-inclusive, convenient and discreet CBRN/TIC escape solution for major incidents, high profile visits, embassies, major events, emergency preparedness and VIP travel
- The CRS15 is suitable for corporate or organisation headquarters in areas of high CBRN/TIC threat
- CRS15 Contents:
 - Full respiratory and eye protection
 - Touch protection
 - Disposable coverall
 - Biological decontamination
 - Chemical/TIC decontamination
 - Instruction card
 - Disposal bags
- A simple to follow user guide is included with each CRS15 pack





Model: Copperline

By: ComNet

① www.comnet.net

- Extend signals over twisted pair or Coaxial beyond the 100 metre limitation
- Maintain 100Mbps network integrity
- Support PoE delivery to end unit
- Multicast, Unicast & Jumbo Frame support
- Point to point PoE af / at level
- 5 port switch
- SFP module
- Industrial grade
- Made In USA and Lifetime Warranty



Model: FLATSCAN15

By: Teledyne ICM

① www.teledyneicm.com

- Detect weapons, explosive and drugs
- Developed with and for EOD operators
- Differentiate organic and non-organic materials
- Flat & thin, lightweight (3.5Kg), reduced dead zone (5 mm), wireless, Battery operated
- Fast image capturev (5 seconds)
- Image enhancement software
- Multilingual software





Model: IP Controller

By: MARSS IP & SECURITY SRL

www.marss.eu

- IP Module based on the stand-alone TCP/IP technology
- The module allows to make 8 activations and to control the same number of status via web server embedded, and via iPhone and Android applications
- Available in the models at 8/4/2 outputs and inputs
- Management and programming via iPhone and Android, free downloadable from the reference Market
- Cloud based
- SSL Protocol
- Applications: convert any traditional alarm system into IP technology, Home Building Automation - Access Control
- Prepared to plug in the Wi-Fi module a
- Easy and innovative, user-friendly, within the reach of all



Model: Guardian 200

By: Crossmatch

www.crossmatch.com

- Illuminated pictograms
- Auto capture, FlexFlats and FlexRolls
- Superior wet and dry print capture without recalibration
- FBI Appendix F, Livescan and ID Flats
- USB 2.0 high speed interface
- Optional spoof detection



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Intersec 2016 Approaches Full Capacity As World's Security, Safety and Fire Protection Industries Zoom In On Middle East

The countdown has begun for the return of the world's largest security, safety and fire protection trade show located in Dubai, with 90 per cent of the exhibition space already booked about four months ahead of its grand opening for the 18th time.

More than 1,300 exhibitors from 52 countries are expected to participate at the Intersec 2016, which returns to the Dubai International Convention and Exhibition Centre with new features that reflect a constantly growing and evolving regional and international security landscape.

New developments at the three-day event, organised by Messe Frankfurt Middle East, include a Smart Home and Building Automation section, adding on to the five other core sections of Commercial Security, Information Security, Fire & Rescue, Safety & Health and Homeland Security Policing.

A Smart Home Live Demonstration are will take centre-stage at the brand new section, where industry leaders like ASSA ABLOY, Honeywell, Dahua CP Plus, WolfGuard, and TechCom, will showcase their latest home security, auto-controlling, energy management and multimedia technologies in a 100 square metres villa.



intersec



With a focus on technologies such as KNX, X10, Zigbee, En-Ocean, Bluetooth, and Z-Wave, Smart Home Live Demonstration arrives as the Middle East commands 10 per cent of the global smart home market, which is estimated to be worth US\$55.8 billion by 2020, according to KippReport.

Intersec 2016, which will take place from 17th to 19th January, will also feature several brand new pavilions, including an already sold-out Safety Design in Buildings Pavilion in the Fire & Rescue section, where the spotlight will be on building construction, fire protection, fire rated building materials, fire alarms and smoke ventilation systems.

A Jobs and Career Pavilion, bringing safety and security professionals in touch with the right career opportunities, and a Drones and Unmanned Aerial Surveillance Pavilion wrap up the series of new additions to what promises to be yet another standout year for Intersec.

Ahmed Pauwels, CEO of Messe Frankfurt Middle East, said, "Safety and security continues to be top priority issues across the globe, with governments and companies pulling out all stops to protect critical infrastructure, and create safe and secure environments in an increasingly challenging global scenario."

"Intersec's continued evolution and growth into new areas is in response to the clear direction in which the regional and international safety, security and fire protection industries are headed. We're looking forward to once again being the focal point of the latest technologies and innovations that will secure a safer future for all."

Information Security is the fastest-growing section at Intersec 2016, and will double the size next year, with more than 40 exhibitors showcasing solutions that protect government and private institutions alike from cyber-crimes such as electronic fraud, sabotage, intellectual property theft, and malware and data manipulation.





Meanwhile, Commercial Security will again be the largest section, with more than 600 exhibitors on board, including the world's top ten security solution providers. Dahua Technology and Axis Communications are amongst the world's top ten returning next year, and both have big growth plans in the Middle East and Africa. Dahua Technology will use Intersec 2016 to launch its latest Closed Circuit Television (CCTV) surveillance solutions targeting the three verticals of traffic, mobile, and smart buildings.

Xin Chen, the General Manager of Dahua Technology Middle East explained, "Our traffic solutions include radar devices, speed and red light enforcement, while our mobile solutions focus on public transportation, police vehicles and school buses. We will also demonstrate how our smart building systems can integrate CCTV, access control, video intercoms, and alarms into one platform.

"Currently, the Middle East is the biggest potential market for CCTV, and there are large demands from Africa as well," Chen adds. "As a professional security products manufacturer, we need to let people understand their life can be perfectly protected by demonstrating professional security knowledge in a simple and easy solution."





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Marwan Khoury, Marketing Manager for Axis Communications in the Middle East and Africa, says that Axis maintains the number one position for network video surveillance in the wider Middle East thanks to its ability to be first-to-market with innovative products, coupled with a customer-centric approach that designs tailor made solutions specific to varying industry requirements.

“The world is truly becoming global and we’re increasingly focusing on emerging markets – such as the Middle East and Africa – which represents about 27 per cent of our revenue now, and is still growing every year,” said Khoury. “In the Middle East and Africa, the total

network video surveillance market was worth about US\$420 million in 2014, and there’s going to be a very healthy increase until 2019.”

Returning features at Intersec 2016 include the GPEC (General Police Equipment Exhibition & Conference) Pavilion at the Homeland Security & Policing section, and the Techtexil Pavilion at the Safety & Health section, while three industry conferences held in cooperation with the Dubai Police and Dubai Civil Defence will also take place.

The strong international flavour of the annual showpiece will be underlined by 16 country pavilions from Canada, China, France,

Germany, Hong Kong, India, Italy, Korea, Pakistan, Singapore, Taiwan, UAE, UK, USA, and for the first time, Iran, and the Czech Republic.

Held under the patronage of His Highness Sheikh Mansoor bin Mohammed bin Rashid Al Maktoum, Intersec is the flagship event of Messe Frankfurt’s global network of security and safety exhibitions, which include Secutech India, Secutech Taiwan, Secutech Thailand, Intersec Buenos Aires, Secutech Vietnam and Seguriexpo Buenos Aires.

For more information, please visit: www.safety-security.messefrankfurt.com 

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