

# Security Solutions Today

September / October 2015



## HOMELAND SECURITY

**Cover Focus** Screening And Surveillance Systems For Both Tiered Airports

**Inside Look** Reinventing Airport ID Pass Management & More!

**In Focus** Interview With LogRhythm & More!

**Show Preview** CPSE 2015



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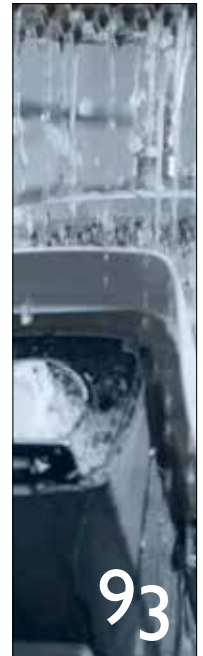
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# CONTENTS

September - October 2015



<b>CALENDAR OF EVENTS</b>	6
<b>EDITOR'S NOTE</b>	8

## IN THE NEWS

Around The World	10
Eye On Asia	24

## COVER FOCUS

Screening And Surveillance Systems For Both Tiered Airports	28
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## INSIDE LOOK

No More Flight Of Fancy	78
Reinventing Airport ID Pass Management	86
“Crunch Time” At Government Facilities For Vehicular Perimeter Security Systems	96

## CASE STUDIES

Homeland Security	36
General	60

## SECURITY FEATURE

Best Practices Provide Best Value When Implementing Key Control And Asset Management System	54
Dahua Elaborates On The Application Of H.265 Compression Standard	92

## IN FOCUS

An Interview With LogRhythm	76
An Interview With Palo Alto	84
An Interview With Siemens	100

<b>PRODUCT SPOTLIGHT</b>	104
<b>PRODUCT SHOWCASE</b>	112
<b>SHOW REVIEW</b>	130

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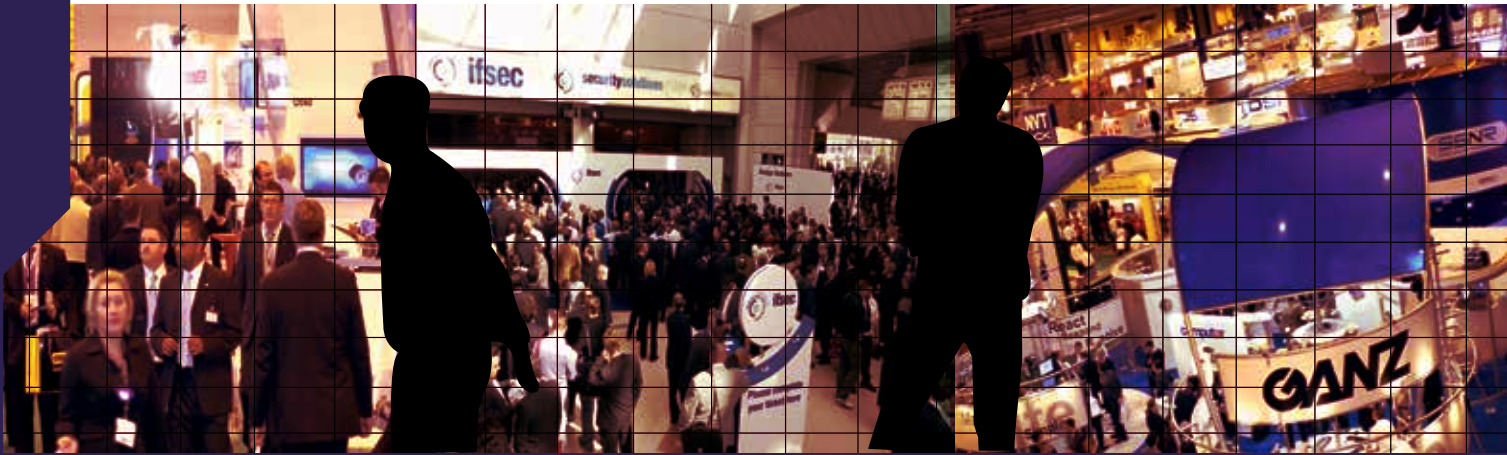


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### Secutech Vietnam 2015

Date: 18 – 20 August 2015  
Venue: Saigon Exhibition & Convention Center (SECC), Ho Chi Minh City, Vietnam  
Contact: Eva Tsai  
Organiser: Messe Frankfurt New Era Business Media Ltd  
Tel: (886) 2 2659 9080 ext. 668  
Email: stvn@newera.messefrankfurt.com  
Website: www.secutechvietnam.com

### IFSEC SEA 2015

Date: 2 – 4 September 2015  
Venue: Kuala Lumpur Convention Centre  
Contact: TJ Tan  
Organiser: UBM United Business Media Malaysia  
Tel: +6-03-2176 8788  
Email: TJ.Tan@ubm.com  
Website: www.ifsecsea.com

### Myanmar Security Expo 2015

Date: 30 September – 2 October 2015  
Venue: Tatmadaw Hall, Yangon  
Contact: Michael Ng  
Organiser: MP International (MPI) group  
Tel: +65 6393 0251  
Email: michaelng@mpinetwork.com  
Website: www.securityexpomyanmar.com

### Safety & Security Asia 2015

Date: 29 September – 1 October 2015  
Venue: Marina Bay Sands, Singapore  
Contact: Christine Sim  
Organiser: Conference & Exhibition Management Services Pte Ltd  
Tel: + 65 6278 8666  
Email: SSA@cems.com.sg  
Website: www.safetysecurityasia.com.sg

### Intersec Dubai 2016

Date: 17 – 19 January 2016  
Venue: Dubai International Convention and Exhibition Centre  
Organiser: Messe Frankfurt Middle East GmbH  
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Email: andreas.rex@uaemessefrankfurt.com  
Website: www.intersecexpo.com

### IFSEC International 2016

Date: 21 – 23 June 2016  
Venue: ExCel London One Western Gateway, Royal Victoria Dock  
Organiser: UBM EMEA  
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Fitting in the palm of your hand, the PKT-23 is easy to take anywhere your staff needs to go. At only 110 g, it can fit comfortably in an apron pocket or attached with the included belt clip. The front panel button layout makes the PKT-23 easy to operate.



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The PKT-23 offers 500 mWatts of power, providing a coverage area up to 8 km for direct radio-to-radio communication on the same frequency. The built-in 1,430 mAh lithium-ion battery provides up to 15 hours of use.

**Wide talk range**

The PKT-23 achieves a talk range of up to 8 km with a receiver circuit optimised for the high-performance stationary antenna.

**8 Channels with Voice Guide**

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**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 there treasured readers of Security Solutions Today!*

*How time surprises us all by creeping through our everyday and before you know it, we made it to more than halfway through 2015. As we greet the second portion of the year together, I warmly welcome the months ahead by assembling the intriguing SEP/OCT issue of SST.*

*In this issue, I usher you to the perimeters of the aviation industry. We will travel to a variation of airports around the world, showcasing the latest trends for aviation security in this millennium. Proceeding on, we will continue the journey with Bligher Surveillance Systems as they equip us with the knowledge on how to ensure holistic screening and surveillance systems for airports.*

*Further enriching our 'In Focus' section is Mr Bill Taylor, Vice President of LogRhythm, Asia Pacific & Japan and Mr Alfred Lee, Vice President of Product Management, Palo Alto Networks sharing with us their insights on the traits and trends of cyber security. Joining our fellow experts is Mr Renè Jungbluth, Head Solution and Service Portfolio, Building Technologies Division, Siemens as he engages us with his observation on the changing landscapes of the security industry.*

*Giving you an 'Inside Look' to 'Reinventing Airport ID Pass Management', we have Mr Ian Cushion, Marketing Manager of Human Recognition Systems enlightening us with ways airport ID management can be more secured.*

*Researching and preparing for the SEP/OCT issue has indeed been an educational road. I hope as much as it has been a learning journey for me, it will be just the same for you as the readers of Security Solutions Today, if not more.*

*I wish you all an insightful read!*

*Cheers,  
Ain Ebrahim  
Editor*



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\*Photo courtesy of VSL Infrastructure Protection, Installer



## Altronix Receives Coveted Superstar Award At PSA-TEC 2015 Along With Honours For Customer Service Excellence

**A**ltronix took home two awards at PSA-TEC in Colorado early this month. Altronix was awarded PSA's exclusive Superstar Award for being one of their most valuable vendors of the year, as well as PSA's Customer Service – Team Award. These accolades are determined by the PSA membership, and based on a range of factors such as ease of doing business, product quality, and customer service excellence.

"It continues to be a great honour to partner with the PSA team and their network of security professionals for over 20 years," said Alan Forman, President and CEO, Altronix. "We would like to thank PSA and its members for their hospitality and loyalty, as they reinforce that Altronix continues to deliver the technologies and customer experiences that provide solutions and create new revenue opportunities for them."

"Altronix consistently delivers high quality products and support to our integrators," said Bill Bozeman, President and CEO of PSA Security Network. "Their customer support is highly regarded among our integrators as one of the best, along with their reputation for on-time delivery. The awards simply confirm that they are in fact one of our best vendor partners."

For more information, please visit: [www.altronix.com](http://www.altronix.com) **SST**

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## The Ultimate Choice In A Hands-Free Long Range Identification Device

**T**he launch of the innovative and unique system for automatic vehicle verification with heavily metallised anti-solar film underscores another successful product milestone for COSELEC, the APAC subsidiary of top RFID German manufacturer, deister electronic GmbH.

COSELEC Pte Ltd is launching the new tranSpeed TAL700M at the IFSEC SEA 2015 Show at KLCC in September 2015. Before the official launch, the much awaited TAL700M system has already been successfully evaluated by some esteemed developers and system integrators. Several prestigious project references in Malaysia have already been installed with the TAL700M system.

tranSpeed TAL700M is a further innovation from the highly successful product line of tranSpeed TSG60DB, TSU25DB, TSU200 and TSU100. TAL700M was specially developed to meet the needs of some vehicles with heavy tinted solar film to allow for optimal rate of readability penetration of up to 7m without compromising on convenience and security.

Together with the TAL700M readers, are the active transponders TPA8014/8024/8034 available with single or dual-technology (mifare or EV1) for a "one-card solution". These transponders are aesthetically designed with sleek outlook and user-chargeable battery for great convenience. The TAL700M can be easily interfaced and integrated with any third party access control systems making it an ideal system for both vehicle verification and door access.

For more information, please email: [info@coselec.com.sg](mailto:info@coselec.com.sg) **SST**



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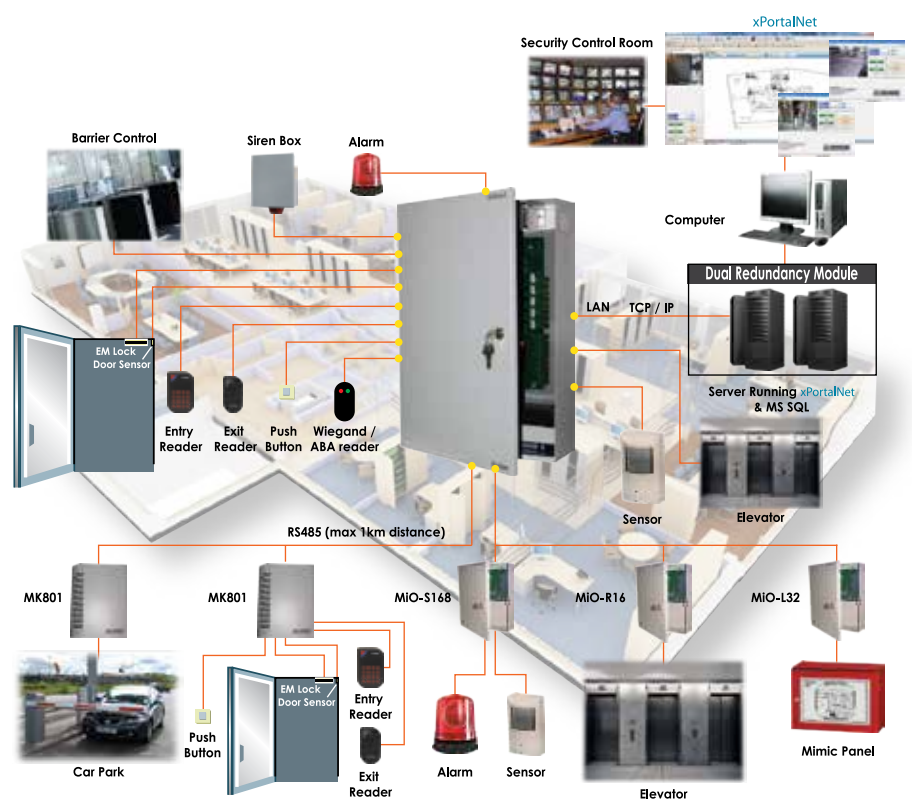
- ▶ 64 Bit Programmable Card ID
- ▶ Encrypted with 3DES
- ▶ Card ID Not by Serial Number

### P1000i PoE Controller



- ▶ PoE+ with Battery Charger
- ▶ AES128 Encrypted IP
- ▶ Support 1 Door/2 Readers

### Integrated Security System (With Redundancy)



### Projects



Commercial / Complex



Factory



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- ▶ OPC Integration Module
- ▶ DesFire Reader

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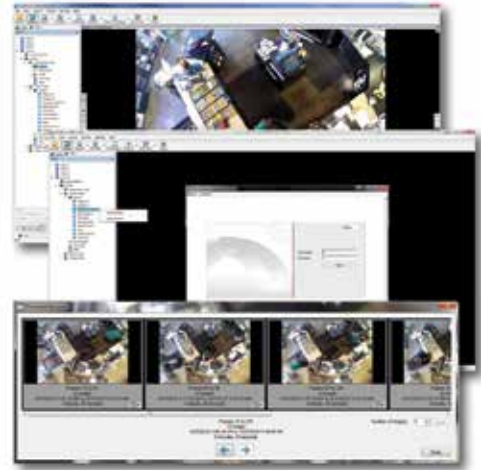




## 3XLOGIC Announces Newly-Updated VIGIL System 8.0

**V**IGIL Server is the core component of the VIGIL System software, upon which all other 3xLOGIC applications are built. One of the industry's easiest systems to deploy, VIGIL Server offers a convenient Installation Wizard to assist users in configuring their entire video recording and management system in just minutes. The Installation Wizard helps define the system network parameters, the system ID information, and camera profiles. A template is then created that can be saved, allowing users the ability to reproduce a complete system configuration in just minutes. These templates allow for standardisation across large rollouts, in addition to streamlining the installation.

VIGIL Client, also included as part of the System software package, offers unrivaled access to live and recorded video from any networked NVR. Advanced playback and intelligent SmartSearch functionality empowers the user to identify and review events of interest quickly and easily. The result is a more accurate and efficient investigation of incidents, coupled with the ability to export evidence material. Additional Application Modules are available and can be packaged with VIGIL System 8.0; such as, VIGIL POS, VIGIL Analytics, VIGIL Central Management (VCM) for centralised server management, and HD Viewer for public view monitors.



"By using the knowledge gained from thousands of installations, across multiple vertical market applications, we've enhanced VIGIL System 8.0 to respond to the market experiences of our end users; the new features will deliver surveillance results faster and more effectively," said Charlie Erickson, VP Product Management. "Overall, VIGIL 8.0 focuses on delivering more surveillance power and speed, without increasing bandwidth demand, while simultaneously laying the foundation for utilisation of the power of the cloud."

For more information, please visit: [www.3xlogic.com](http://www.3xlogic.com) **SST**

## S2 Security Launches S2 Network Node VR

**S**2 Security announced the introduction of S2 Network Node VR, an intelligent field panel that brings access control and video management to the network edge in a single, compact appliance. S2 Network Node VR provides an easy, cost-effective way for users of S2 access control systems with smaller, distributed locations to connect IP cameras, card readers and other physical security and monitoring devices to a centrally managed S2 system.

"S2 Network Node VR is a unique addition to our rich video products line," said John L. Moss, CEO, S2 Security. "Our large enterprise customers have been asking for an innovative way to bring video, access control, and monitoring to their smaller sites, and this product does exactly that. There's nothing else like it in our industry."

With support for up to eight IP cameras and up to eight access control portals, S2 Network Node VR system capabilities can be expanded and customised with up to four modular blades for access control, alarm inputs, relay outputs and temperature probes. The fan-less product design includes an option for solid-state storage, providing extended product longevity. This keeps servicing costs low and delivers an ideal solution for remote locations. S2 Security has a broad range of video products, including S2 NetBox VsR Quatro, which offers capabilities comparable to S2 Network Node VR with the addition of embedded security management software for stand-alone applications.

For more information, please visit: [www.s2sys.com](http://www.s2sys.com) **SST**

# MicroEngine®

## Integrated Security Systems

### selected projects

#### Commercial Centre + Government Department



Solution : Door Access + Time Attendance + Alarm Monitoring + CCTV Matrix Switch Interface  
Equipment : XP-GTR1200L, XP-CNET  
Software : xPortalNet / xPortal Web

- ▶ Instant e-mail notification - time attendance.
- ▶ One stop web based - time attendance for real time monitoring, reporting, viewing, and applications for attendance infringement.
- ▶ Integration with lift and time attendance database.
- ▶ Visitor card retrieval and automatic sign out upon exit.

#### Data Centre

Solution : Door Access + Car Park Access + Lift Access + High Level CCTV Integration  
Equipment : M2000i, XP-CPROL  
Software : xPortalNet

- ▶ Supports more than 350 doors.
- ▶ Complete IP based.
- ▶ Card Access + Guard Tour + Door Monitoring + Visitor Management System.
- ▶ Integration with DVR for live video streaming + video pop-up on alarm event + triggering for DVR recording.



#### Residential Condominium



Solution : 361 Inputs, 33 Outputs, 24 Doors  
Door + Lift + Car Park Access + Visitor Management + CCTV Integration  
Equipment : XP-CNET, XP-CPROL  
Software : xPortalNet / xPortal Web

- ▶ One stop solution for multiple security services.
- ▶ Integration with DVR for live footage pop-up upon alarm trigger.
- ▶ MyKad based visitor management system.

#### Hospital

Solution : Door Access + Car Park Access + Lift Access + CCTV Integration  
Equipment : XP-CPROA  
Software : xPortalNet

- ▶ Supports more than 600 doors.
- ▶ Multiple server for each ward with local operations and database.
- ▶ Central server for ease of backup, maintenance and administrative control.
- ▶ Comprehensive partitioning + dynamic floor plan capabilities.
- ▶ Integration with personnel duress tracking + CCTV Integration.



#### Factory



Solution : 200+ Door / Time Attendance + Visitor Management  
Equipment : XP-CNET - LAN / WAN  
Software : xPortalNet

- ▶ Real time export to factory's IT system database (SQL / Oracle).
- ▶ 20,000 users capacity.
- ▶ Complete IP based.
- ▶ API for integrating Visitor Management System.

[enquiry@microengine.net](mailto:enquiry@microengine.net)  
[www.microengine.net](http://www.microengine.net)



Our Office





## Aurora Launches FaceSentinel: Facial Recognition For Access Control, Powered by Deep Learning

**A**urora launched FaceSentinel, the world's first biometric access control authentication product powered by Deep Learning. Designed for integration with existing access control systems, the groundbreaking facial recognition system uses AI and infrared light to achieve unparalleled facial recognition speed, accuracy and reliability.

FaceSentinel works with existing high-security access control systems to authenticate pass holders: a registered user swipes his or her pass card or key fob and FaceSentinel simply confirms whether the person holding the credential is the same person registered within the organisation's access permissions system. This authentication happens in a second or less, thanks to the core technology behind FaceSentinel: Deep Learning.

Deep Learning is a pioneering technique used to create a highly optimised Artificial Intelligence. It works by first creating a blank "brain": an artificial neural network. This brain is then trained to recognise faces by presenting it with millions of face image examples, enabling it to become more experienced, faster and more accurate at the facial recognition task than any human or existing technology could be. Aurora's Deep Learning capacity is the result of work done by its R&D department - a team of six PhD facial recognition experts led by Head of Research, Dr Tom Heseltine.

The cutting edge technology behind FaceSentinel also includes the use of infrared cameras to overcome the inherent challenge presented to facial recognition by fluctuations in natural light.

Gary James, Aurora's Head of Sales and Customer Relations, says the development of FaceSentinel heralds a new era in biometric security technology.

"This is the first time the security industry has seen Deep Learning and Artificial intelligence harnessed to create a fast, powerful and truly reliable access control product," he says. "It's unobtrusive - the user doesn't need to present themselves to a finger or handprint scanner - and safe: only face templates are stored, not images of users. FaceSentinel is Wiegand and RS485 compliant and so can be added seamlessly to 90% of the world's access control systems. For high security sites it provides true authentication and peace of mind."

UK-based Aurora has impressive pedigree and experience in the world of airport passenger management, where its facial recognition products assist with matching travellers to boarding passes at Heathrow and Manchester airports. At Heathrow Terminals 2 and 5, over 15 million facial recognition events were processed in 2014. At Manchester, over 5 million people have used the system since its introduction in 2013.

"The technology is highly efficient and reliable," James says. "Now, with Deep Learning, it is amazingly accurate and consistent - and getting more so all the time." Aurora's first access control partner is Plan Access Control. Managing Director, Ray Phillips, says: "FaceSentinel is truly a huge evolutionary step for access control authentication. It's far and away the fastest, least invasive, biometric verification system we've worked with, and it makes a lot of sense for use in high-end access security applications."



Aurora is actively seeking additional new access partners to work alongside FaceSentinel and welcomes enquiries from manufacturers.

"We believe FaceSentinel provides a truly compelling case for the use of biometric verification in high security scenarios," James says. "It's the fastest, most accurate authentication available, and we'd love to hear from access control manufacturers who are interested in working with us."

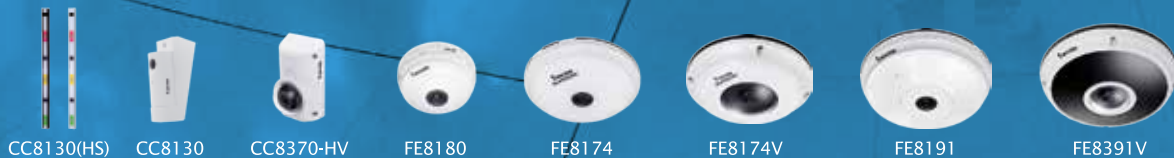
**For more information, please visit:**  
[www.facerec.com](http://www.facerec.com) **SST**



# Fisheye Network Camera Series

## Achieve 360° Views - Total Surveillance Coverage

VIVOTEK is firmly committed to the development of outstanding fisheye network cameras, providing 180° panoramic viewing (wall mount) or 360° surround viewing (ceiling/floor mount), featuring a range of megapixel fisheyes, camera dimensions and value-added functions in order to satisfy the needs of a diverse range of applications. VIVOTEK fisheye cameras allow the user to truly achieve unobstructed monitoring of wide open areas such as airports, shopping malls, retail stores, stations, transportations, offices and so on.



CC8130(HS)   CC8130   CC8370-HV   FE8180   FE8174   FE8174V   FE8191   FE8391V





## WatchNET XVi Enhanced HD-CVI 2.1MP Motorised Remote Zoom/Focus Cameras

**W**atchNET Inc. of Toronto, Canada introduces the new XVI-21IRBVM. Part of the XVi Enhanced HD-CVI lineup this newest release offers full 2.1MP 1080p HD video and features a built-in motorised vari-focal lens for remote zoom and focus.

The compact vandal-proof mini turret ball camera is compatible with all WatchNET EVi DVRs and Tribrid NDVRs (or HDCVI DVRs) allowing easy upgrade or retrofit of out-of-date analog systems to full HD using the existing coax cable or UTP. Designed using industry leading HD-CVI technology the motorised lens offers full zoom and focus capabilities locally or remotely using only the single coax cable or UTP without the need of additional cables.

With built-in IR illuminators and Smart IR Control the device can see up to 40m in complete darkness. Other features include Defog, D-WDR, 8X zoom, IP66 housing, 12VDC, and dual 2.1MP HD CVI or 960h output.

For more information, please visit: [www.watchnetinc.com](http://www.watchnetinc.com) **SST**



## Avigilon Launches The Avigilon Control Center (ACC) Edge Solution (ES) High Definition (HD) Recorder To Enhance Centralised Remote Site Monitoring

**A**vigilon Corporation announced the addition of the Avigilon Control Center (ACC) Edge Solution (ES) High Definition (HD) Recorder to its innovative product portfolio. The ACC ES HD Recorder delivers complete support for HD cameras up to 7K (30 MP) resolution, full performance of the Avigilon Control Center (ACC) software and powerful remote access capabilities in a compact design.

The ACC ES HD Recorder is ideal for centralised monitoring of critical infrastructure; it offers intelligent monitoring deployed onsite at the network edge, the ability to store high amounts of HD video data remotely and the ability to view live or recorded video from long distances upon demand. Locations such as upstream oil and gas pipelines, power substations and telecommunications towers are well-suited to use the ACC ES HD Recorder to record critical video and keep their people, property and assets safe.

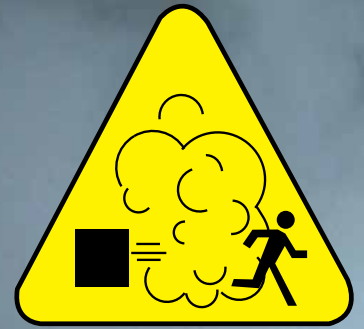
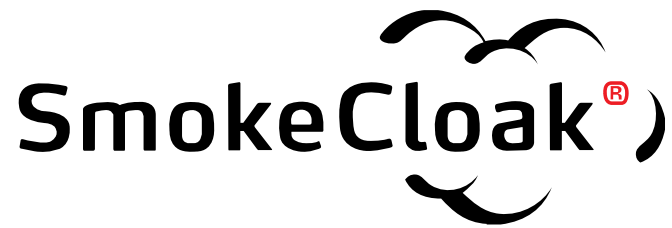
“Geographically-dispersed sites, especially critical infrastructure facilities, have traditionally been a challenge to monitor due to their remote location, reduced on-site staff and limited network capacity and bandwidth,” said

Avigilon’s Chief Technology Officer and Senior Vice President, Dr. Mahesh Saptharishi. “The ACC ES HD Recorder embeds Avigilon’s core technologies in a compact device, providing end users with a complete solution.”

The ACC ES HD Recorder features four Power over Ethernet (POE) network ports that support Avigilon’s full range of HD cameras, from 1 megapixel (MP) to 7K (30 MP) resolution. The appliance is available in 2 terabyte (TB) and 4 TB storage models. Multiple appliances can be combined as a single logical site to support larger installations.

The ACC ES HD Recorder is equipped with the ACC software featuring Avigilon’s patented High Definition Stream Management (HDSM) technology, which provides efficient bandwidth and storage management, enabling users to view even the highest resolution cameras over a remote connection. When paired with Avigilon’s HD cameras with self-learning video analytics, the solution offers rules and alarms to enable proactive incident response.

For more information, please visit: [www.avigilon.com](http://www.avigilon.com) **SST**



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## What is Smokecloak®?

The SmokeCloak® system from MSS Professional is designed to secure your premises and stock in the critical time gap between the alarm's activation and the response team's arrival at the scene.

Extremely powerful artificial fog generators sold under the Smokecloak® brand are constructed to work together seamlessly with existing alarm installations, providing physical protection at the moment of attack.



00:00 seconds

00:03 seconds

**00:05 seconds**



## HID Global Develops Innovative Biotechnology RFID Tag To Meet Vital Need In Cryopreservation

**H**ID Global announced its industry leading biotechnology radio frequency identification (RFID) tags designed to meet a critical need in the cryopreservation industry. The company has developed a cutting-edge solution for use at sub-zero temperatures setting it apart from other solutions that focus on harsh high-heat conditions. The unique tag is already redefining cryogenic storage, enabling facilities to enhance and streamline logistics, thereby maximising their value to the medical and scientific communities.

Through extensive research, testing and deployment, HID Global and Cryogatt Systems Ltd. partnered to develop viable tags for use at extremely low temperatures in fertility clinics, research laboratories and other storage facilities. The ruggedness of HID Global RFID survives the harshness of storage at temperatures of -196 degree Celsius to -321 degree Celsius. Cryogatt and HID Global coordinated testing with the National Institute of Biological Standards and Control (NIBSC). The result was over two million hours 'mean time between failures' (MTBF), and not a single recorded failure in the past two years.

"In close cooperation with Cryogatt and their customers, Cryogatt and HID Global engineers successfully designed the unique tags and readers for this innovative application," said Richard Aufreiter, Director Product Management, Identification Technologies with HID Global. It was an exciting challenge to work at the lower end of the temperature scale, where often materials and electronics behave differently than at room temperature."



Using a highly durable RFID tag designed for harsh environments, companies worked together to develop an RFID tagging system, which entails embedding containers with HID Global's tiny Glass and Piccolino tags using HID Vigo Direct Bonding technology. This patented technology allows for the creation of extremely compact and robust transponders with high memory and security features. Associated hardware includes patented Cryogatt readers that work at -196 degree Celsius and Cryogatt software to accurately locate, record and audit samples throughout the storage lifecycle.

NIBSC implemented the new RFID solution and is now able to accurately track, inventory and simplify the management of long-term samples. The solution delivers accurate data down to the precise vessel, thus optimising storage space. Pick lists are now simple to create, enabling an accurate pull of samples when needed, and retrieval is now, on average, two to five times faster while maintaining sample safety.

Additionally, access to detailed and accurate information has significantly enhanced quality system auditing.

"Traceability is accurate to satisfy regulatory standards and saves hours of searching," said Kirsty Stevenson, Manager Cold Storage in the Pathology Department of the Bristol Royal Infirmary, a teaching hospital. Other benefits of the HID Global and Cryogatt solution include improved accuracy, optimised storage space, a precise audit trail, enhanced sample safety, and saved time and costs.

"Deploying a solution capable of surviving a harsh and highly regulated cryogenic environment is critical to the success of laboratories, hospitals, fertility clinics and healthcare agencies worldwide, said Geoff Morris, Engineering Director, Cryogatt Systems LTD. "Our solution developed with HID Global also provides comfort that the data is accurate for that next compliance audit."

**For more information, please visit:**  
[www.hidglobal.com](http://www.hidglobal.com) **SST**



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## LILIN Merges The Power Of 360 Degrees Video Surveillance With The Affordability Of An Analog Dome Camera



LILIN has combined the cost-effectiveness of analog cameras with the powerful effectiveness of 360 degrees panoramic video surveillance in its new CMD2422 series HD two-megapixel sensor dome surveillance camera. Providing a sphere of 360 degrees coverage in 1600 x 1200 pixel HD resolution, the camera accurately monitors a scene up to 4,000 square-feet. Four independent views from a single camera reduces camera count, cabling, and the personnel needed to administer surveillance for lower cost-of-ownership without compromising situational awareness. This is how it works: Each of the four D1 resolution channels are independently operated and their video is "dewarped" to avoid the fisheye distortion common in other, lower quality panoramic cameras. Also, in the event of a criminal act, the CMD2422 series makes more video data available for post-incident analysis.

This new approach to 360 degrees analog full HD video monitoring means that no mechanical PTZ motor is needed to capture the full scene, further enhancing its ease of use and installation. Other winning features of the camera include an IR cut filter for true day and night imaging, RS-485 control interface, IP66 outdoor rating, and on-screen display setup for faster installation.

For more information, please visit: [www.meritlilin.com](http://www.meritlilin.com) SST

## L-3 Security & Detection Systems' MV3D Explosives Detection System Receives TSA Certification



L-3 Security & Detection Systems (L-3 SDS) announced that its MV3D explosives detection system (EDS) has been certified by the U.S. Transportation Security Administration (TSA). The MV3D incorporates a stationary gantry design and a large rectangular tunnel for high system availability, maximum throughput and cost-effective operation. The system is now both TSA - and EU Standard 3-approved.

"This new certification demonstrates the MV3D's ability to meet the highest levels of detection performance. Its revolutionary design generates the throughput and image quality of previous EU Standard 2 systems, while providing the detection performance required of EU Standard 3- and TSA-certified systems – all at a very high level of reliability," said Thomas M. Ripp, president of L-3 Security & Detection Systems. "This achievement is a direct outcome of L-3's ongoing partnership with the TSA and our investment in research to continuously improve our technologies and keep abreast of regulatory requirements and emerging threats."

Scanning up to 1,800 bags per hour (BPH) with a belt speed of 0.5 meters per second and featuring a rectangular 1-metre-wide by 80-centimetre-high tunnel, the MV3D is ideally suited for easy integration with high-speed baggage handling systems worldwide. The MV3D's fixed-source, dual-energy design delivers high-resolution 2-D and 3-D images, allowing operators to make faster, and higher-confidence decisions.

L-3 SDS offers customers the broadest range of TSA-certified and EU-approved EDS solutions for every throughput class, from its compact eXaminer SX (360 BPH) to the widely deployed eXaminer 3DX (540 BPH) to the high-speed, dual-energy eXaminer XLB (1,200 BPH). The MV3D enhances the EDS lineup, enabling L-3 to offer a 1,800 BPH solution for airports requiring the highest level of throughput.

For more information, please visit: [www.L-3.com](http://www.L-3.com) SST



## Southwest Microwave Introduces Advanced Outdoor Passive Infrared Sensor

**S**outhwest Microwave has announced the introduction of the advanced Model 420 Passive Infrared (PIR) Sensor for specialised outdoor intrusion detection applications.

With detection capability to 122 metres, Model 420 provides a four-zone, continuous and gap-free curtain-sensing pattern that detects intruders by identifying the temperature (heat radiation) difference between background scene and intruder. The pattern includes long, medium and short-range detection segments, plus a controllable Creep Field that protects the area surrounding the mounting pole.

The latest in detector and signal processing technology plus precision mirror optics enable Model 420 to operate in broad-ranging environmental conditions. The sensor offers Double Optical Filtering, Digital Signal Processing, Signal



Shape Analysis and Adaptive Threshold Decoding, each of which contributes to ensuring reliable operation under changing climatic conditions.

Reinforcing Model 420's performance reliability is the sensor's ease of operation. Set-up and adjustment are achieved via user-friendly installation software with flexible controls to

simplify alignment, signal check and routine maintenance.

Model 420 electronics and optics are housed in a rugged IP65 heavy-duty plastic enclosure. An internally regulated heater connected to sensor electronics and operating from the supply voltage prevents the unit's optical surface from fogging or frosting in cold weather.

**For more information, please visit:**  
[www.southwestmicrowave.com](http://www.southwestmicrowave.com) **SST**

## Oncam Appoints New Vice President Of Product Management

**O**ncam, the security division of Oncam Technologies announced the appointment of Justin Wheatley as Vice President of Product Management. In this role, Wheatley will ensure Oncam's products are clearly and strongly defined, understood and represented in the marketplace, as well as developed to meet the evolving needs of customers in a wide variety of markets. Wheatley brings more than 23 years of engineering, management, and product development and testing experience in the technology and IT fields to his new role with Oncam. He has extensive experience in the development of dewarping technology for 360-degree fisheye cameras.

"Oncam is developing cutting-edge technology that has real-world applications in a number of vertical markets. Its leadership role makes it uniquely positioned to take advantage of growth opportunities in the multidirectional camera market," Wheatley said. "I look forward to working closely with the research and development team to look for ways to improve our products further and ensure we are capitalizing on emerging innovations."

Wheatley joins Oncam from Wavestore, where he held the role of Director of Engineering. In this role, he led research and development, and certification of hardware and software solutions. Over the course of his career, he has held various senior-level roles including Managing Director of Happybug IT; Account Manager for Connect Systems; Systems Manager for Sundance Multiprocessor Technology; and Development Engineer for Domino Printing Sciences. Wheatley holds a Bachelor's Degree in Electronic Engineering from the University of Reading

"As Oncam continues to expand its technology portfolio, Justin will play an instrumental role in helping ensure our products are market-ready and designed to exceed customer expectations," said Adrian Marsh, COO, Oncam. "Justin's wealth of experience will help increase demand for 360 degree video technology, enabling us to increase our market share across the globe."

**For more information, please visit:**  
[www.oncamgrandeye.com](http://www.oncamgrandeye.com) **SST**



## Asahi Net And Milestone Systems Announce Service Provider Partnership For Cloud Solution



Milestone Systems, held a Signing Ceremony with Asahi Net at the Danish Embassy in Tokyo on June 23. The gathering of media, security associations, distributors and market research analysts witnessed the signing of the agreement for Asahi Net to become an official Milestone Service Provider Partner. Asahi Net will build and supply a cloud solution based on Milestone XProtect Corporate VMS in collaboration with Milestone IT Infrastructure Partner PROMISE Technology, manufacturer of data storage servers designed for flexible, reliable cloud services.

At the ceremony, Asahi Net President Jiro Hijikata and Milestone Systems VP Asia Pacific Japan Benjamin Low signed the partnership contract.

“Japan has one of the most advanced internet infrastructures in the world, and combined with Asahi Net’s long experience, deep expertise and extensive network, Milestone is confident we will build a cloud solution that will be attractive to even the most demanding Japanese customers. The Asahi Net cloud surveillance solution is based on our flagship software, XProtect Corporate. Besides the VMS, other critical components for success are network stability and bandwidth, which Asahi Net can deliver,” said Benjamin Low. “Milestone XProtect is running cloud solutions elsewhere in the world but this will be the first Milestone-based cloud solution in Japan. Both

Milestone and Asahi Net understand that customization and thorough testing are necessary, and that is why the implementation and release of this cloud service is divided into several phases leading to the general launch next year.”

In this new partnership, PROMISE Technology is responsible for providing the surveillance cloud platform, as well as customizing the XProtect Corporate VMS according to Asahi Net’s requirements. Milestone engineers will be involved providing Custom Development services, as well.

Asahi Net will provide the cloud service (including VMS licenses), network, and camera options through Milestone distributors and resellers. Milestone channel partners can add this new service to an already comprehensive on-premise XProtect product line as another flexible monitoring tool to serve varied customer needs.

Asahi Net is an independent Internet provider also offering cloud services through a communications environment allowing connection between web sites and networks globally. Their services are provided in partnership with major telecom carriers throughout Japan.

**For more information, please visit:**  
[www.milestonesys.com](http://www.milestonesys.com) 

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## New Artesyn 1000W Power Supplies Offer Cost-Competitive Reliability And Efficiency For Industrial And Medical Equipment

The latest addition to the popular LCM family ac-dc power supplies from Artesyn Embedded Technologies is the LCM1000 series, new 1000W models that continue the family reputation for high efficiency and reliability at a competitive cost for industrial and medical equipment. Cost per watt for the new series can be as low as \$0.14/0.13 in production volumes.

The new series includes models rated for nominal 12, 15, 24, 36 or 48 V single outputs, which can be adjusted by 10 per cent. An optional 5 V standby output enables OEM standby functions even when the equipment is nominally off. A sophisticated digital control loop optimises efficiency across a wide load range, giving the new LCM1000 series efficiency greater than 91 per cent at full load, a typical power factor of 0.99, and a power density of 7.7 watts per cubic inch. Digital control also enables the LCM family to be rapidly and cost-effectively modified to suit the exact needs of a customer application. Artesyn has invested in the manufacturing of the LCM family, including greater automation, to shorten lead times and lower the minimum order quantity for non-stock units.

Backed by a comprehensive set of industrial and medical safety approvals, Artesyn's LCM1000 series is ideal for industrial applications such as burn-in systems, test and measurement equipment, laser-carving machines, and factory automation; non-patient contact and non-patient



critical medical, dental and laboratory applications; as well as for telecom and datacom equipment.

The quality and reliability of the LCM series units are assured through careful component selection, automated production processes and sophisticated circuit design. Variable-speed 'Smart Speed' fans draw on software controls developed by Artesyn to match fan speed to the unit's cooling requirement and load current. Slowing the fan not only saves power but also reduces wear, thus extending its life.

The MTBF of the LCM1000 series is greater than 500,000 hours, and all models in the series carry a manufacturer's warranty of three years.

For more information, please visit: [www.artesyn.com](http://www.artesyn.com)

## Dallmeier Launches New Video Analysis Appliance DVS 800 IPS

The DVS 800 IPS completes Dallmeier's entry-level analysis portfolio. The video appliance supports the analysis of up to four IP video channels and the recording of up to eight IP video channels.

The DVS 800 IPS is a compact and versatile SEDOR® video analysis server appliance. The proven platform of VideoNetBox II is used as hardware. The SEDOR Analysis Server software for analysis as well as

the Smavia Recording Server software for recording are already installed. The DVS 800 IPS supports the analysis of up to four IP video channels and the recording of up to eight IP video channels.

Both the analysis and the recording software can be configured easily with a browser via Ethernet. The Smavia Viewing Client is available for evaluation of the recordings. In addition to the fast and intuitive

display of live views the client software supports sophisticated navigation functions for playback, numerous search functions for metadata, the Dallmeier SmartFinder for finding of sequences with movements and PRemote-HD for transmission in narrowband networks.

The analysis results can be output in real-time directly to the Smavia Viewing Client. In addition, they can be sent as a message in XML format

*continue on page 25*



or used for the control of external relays over Ethernet. They can also be output to the external management client PGuard advance. The results of counting applications can be represented graphically or in tabular form using the optional display and evaluation module SEDOR DiViStic over Ethernet with a browser.

The DVS 800 IPS has a compact housing and is perfectly suited for wall mountings.



For more information, please visit: [www.dallmeier.com](http://www.dallmeier.com) SST

## At Mobile World Congress Shanghai 2015, Gemalto Brings Trust To Consumers' Digital Lives

**G**emalto demonstrates at Mobile World Congress Shanghai how its Mobile Trust Net portfolio can help billions of people enjoy simple and convenient solutions, with superior trust and security. Across the globe, mobile devices are transforming the way consumers connect, transact, and access their services. From mobile payments and enterprise security to on-demand connectivity and smart wearables, mobile technology presents endless possibilities for people to improve their lives.

To support the acceleration of this mobile convergence, Gemalto showcased at the Mobile World Congress Shanghai its latest range of solutions for operators, banks, enterprises, OEMs and brands. Gemalto's offerings, reinforced by the recent integration of SafeNet, are at the forefront of securing a complete infrastructure – network, identities, data, and software applications, at the core and at the edge.

Guests at the Gemalto stand was able to experience trusted digital lives through demos and presentations of mCommerce and NFC, Mobile ID and Security, and the Internet of Things (IoT)

In mCommerce and NFC, the Trusted Service Hub (TSH) offers a simple one-stop pay-per-use solution to quickly deploy secure mobile contactless services to the broadest base of users, across a comprehensive portfolio of smartphones and mobile networks worldwide. Operators, device manufacturers, banks and other service providers hence now have more choices to solve the market fragmentation: with a single 'plug once' connection, they can maximise their market reach while avoiding the costly

integrations.

For mobile marketers, Gemalto presented its Mobile Engagement and Monetisation solution, and the interactive, location-based personalised messaging for better customer engagement and advertising.

Gemalto showcased mobile contactless transport ticketing for faster and seamless travel. An open solution that is ready for additional value-adding services, like the popular payment by SMS.

The Mobile ID and Security highlights SafeNet enterprise authentication and cloud security solutions to secure user access and data on cloud based and on-premises applications. Visitors will be able to experience the convenience of seamless authentication from a mobile, anytime and anywhere.

The Internet of Things displays a wide portfolio of smart products and solutions for seamless on-demand secure connectivity, optimised fleet management, and improved consumer experience. This stand will include consumer electronics such as the Limmex smart watch featuring an emergency call button, sophisticated automotive applications using On-Demand Connectivity, and smart delivery solutions with real-time data tracking capabilities. Gemalto speaker Benoît Jouffrey delivered a talk on Subscription Management, highlighting the current initiatives, learnings, and future landscape of the IoT ecosystem.

For more information, please visit: [www.gemalto.com/mobile\\_world\\_congress/](http://www.gemalto.com/mobile_world_congress/) SST



## iOmniscient And Ajilon Have Joined Forces To Make Our Cities Smarter, Safer And More Efficient

● iOmniscient, the leader in providing intelligent analytics solutions, is proud to announce our partnership with Ajilon, a leading Australian IT consultancy firm. iOmniscient's smart solutions are offered hand-in-hand with Ajilon's excellence in deployment of such solutions to ensure successful implementation of Smart Video, Sound and Smell Analytics Systems.

Supported by Microsoft, the organisations are working together to develop solutions for safer and smarter communities by utilising iOmniscient's unique, patented and comprehensive analytics (video, sound and smell) offerings and Ajilon's significant experience in this market, particularly their award-winning work in the law enforcement and justice, and public sector fields.

Nichole Whyte, Microsoft Australia's Public Safety & National Security Industry Market Development Manager said: "We were delighted to introduce these leading companies to each other with the unified mission of making Australian cities safer by improving public safety with their innovative solutions to reduce crime, decrease costs and improve operational effectiveness for our cities. Combining iOmniscient's proven analytics solutions with Ajilon's domain knowledge, expertise and agile delivery capability, provides a unique partnership to proactively address some of the everyday challenges faced by law enforcement and emergency responders in the Australian market to increase the safety of our citizens".

Managing Director at Ajilon, Ger Doyle, said "Our experience in developing systems that link multiple law enforcement and justice agencies to enhance their real-time communications and information sharing has shown us that utilising technology has a real and significant impact on the ability of frontline officers and first responders to do their jobs more effectively and efficiently. By placing more 'eyes' and 'ears' on the streets and better informing the public in times of crisis we will have the ability to greatly increase the effectiveness of our defence, law enforcement, justice and local government safety initiatives. Our work across the Australian law enforcement and justice system has given us a great insight into what this market needs and we are confident we have the right partners to deliver that."

For more information, please visit:  
[www.iomniscient.com](http://www.iomniscient.com) SST

## Barracuda Names Channel And Storage Industry Veteran Chris Ross As Senior Sales Vice President, Global Channels

Barracuda Networks announced that storage and channel veteran Chris Ross has joined the company as its senior sales vice president, global channels. Ross brings over 23 years of technology experience, 15 of those being in storage software, most recently as the vice president of worldwide sales at Arcserve.

At Barracuda, Ross will work with channel teams around the world to drive new strategies and accelerate implementation of Barracuda's recently strengthened partner program. Announced on April 6, 2015, the program updates include a focus on establishing global consistency across all levels of the partner program, expanded deal registration, increased discounts for certain products, and a new MSP program for qualifying partners.

"It's great to have Chris on board to help lead the global channel efforts at Barracuda," said Michael Hughes, SVP, worldwide sales, Barracuda. "Chris provides valuable channel experience, which will help execute the goals aligned with our updated partner program – his joining Barracuda further positions us to rapidly grow and strengthen our channel community across the globe."

Ross joins Barracuda from Arcserve, where he was vice president of worldwide sales. Prior to Arcserve he held a number of VP and GM roles at Bakbone Software, Symantec and PowerQuest Corporation where he worked to build channels, drive growth and develop sales and marketing teams.

"It's a great time to join Barracuda, and I am looking forward to helping establish even greater channel engagement and ensuring that we continue to expand our channels and drive recruitment campaigns for resellers," said Ross.

For more information, please visit:  
[www.barracuda.com](http://www.barracuda.com) SST



## EtherWAN Certified As A Network Solution Partner With Milestone

**E**therWAN Systems Inc., one of the leading manufacturer and provider of industrial network solutions, announces the endorsement of Solution Partner by Milestone Systems, the leader in open platform IP surveillance video management software (VMS). EtherWAN has proven success in network integration of IT infrastructure components, access control and Milestone VMS in the large-scale IP surveillance scenario.

In an IP surveillance project in South East Asia, EtherWAN's EX17242 24-port Power over Ethernet (PoE) switches has formed a steady IP network with CAT6 and fibre optic connections. As a result, the PoE cameras, SCADA and access control systems on site communicate seamlessly through EtherWAN's Ethernet transmission equipment. The surveillance data is collected and sent to the control centre for further event and alarm notifications processed by XProtect Professional, a comprehensive open platform VMS by Milestone. Such integration is made possible in consequence of the implementation of Milestone Integration Platform Software Development Kit (MIP SDK)

"EtherWAN is glad to join Milestone's Solution Partners in



light of shaping reliable network transmission, minimising installation and maintenance time of IP surveillance systems," states Ben Chiang, Business Development Manager of EtherWAN, "We will continue to accumulate and share outstanding integration experience with our global partners and distribution channels in order to provide the most reliable network solutions for both Milestone and EtherWAN users. In order to fulfill this mission, we will make long-term efforts to work with all partners from different application fields."

For more information, please visit:  
[www.etherwan.com](http://www.etherwan.com) **ESST**

## VIVOTEK Launches The CC8130 (HS), A New Height-Strip Network Camera For Reliable Facial Recognition

**V**IVOTEK announced the launch of a new height-strip network camera, the CC8130 (HS), featuring 1-Megapixel video resolution at 30 fps, a 180 degree wide-angle lens and height-strip housing design, allowing the camera to deliver clear images for reliable facial recognition with no dead angles. In addition, the plug-and-play design makes the CC8130 (HS) installation both simple and rapid. Combining low profile and high-level features, the CC8130 (HS) is ideal for discreet indoor applications, such as retail, banks, restaurants, and small businesses, particularly in cashier areas. The CC8130 (HS) opens up

new horizons for surveillance users who need a system that blends in, but want images that stand out.

"Capturing clear facial images is one of the most critical issues in surveillance. One solution is to mount the camera at eye-level, but this increases the risk of vandalism. VIVOTEK, the professional solution provider, is proud to release the CC8130 (HS) with discreet eye-level mounting, allowing capture of clearer facial images than ceiling-mounted cameras, even when subjects wear hats or hoods," said Tim Su, Director, Marketing Division at VIVOTEK. "Additionally, the

CC8130 (HS) offers graduated and colour-coded height measurements in both U.S. and Metric units to meet the needs of users all over the world."

To dramatically reduce file sizes and conserve valuable network bandwidth, the CC8130 (HS) supports the industry-standard H.264 compression technology. Combined with the ST7501 multi-lingual 32-channel recording software, users can quickly and easily set up an IP surveillance system that's simple to operate but hard to beat.

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# SCREENING AND SURVEILLANCE SYSTEMS FOR BOTH TIERED AIRPORTS



*An Article by Mr Mark Radford  
CEO of Blighter Surveillance Systems*



## Introduction

With continued targeting of aviation by terrorist groups worldwide, attention is turning from the strict levels of security employed for passenger screening to targeting 'backdoor' threats arising from relatively low levels of perimeter security at many of the world's tier one and tier two airports. Other threats include intrusion by political activists or intruders intent on criminal activity, sabotage or attempting to stow away on aircraft.

Hitherto, airports have employed large numbers of CCTV cameras and security personnel to monitor for perimeter intrusions. However, the flat, open nature of airports allows perimeter surveillance radars (PSRs) to be installed as the primary sensor for the detection of breaches of the airport perimeter.

But not all radar technologies are equal in meeting the specific circumstances and needs of airport operators. This article discusses and compares low cost mechanically scanned ground surveillance radars with sophisticated solid-state electronic scanning radar systems.

It briefly assesses active electronically scanned array (AESA) radar technology with the newer passive electronically scanned array (PESA) approach in the

context of installation and use.

## Benefits of long-range Electronic Scanning Doppler Radars

Recent developments in electronic-scanning (e-scan) radars have seen a move away from the expensive and power-hungry active electronically scanned array (AESA) military approach to the newer and much lower-cost passive electronically scanned array (PESA) radar technology. The lower entry point allows PESA security radars to be employed for both their traditional military force protection roles and for some more cost-sensitive applications in the homeland security market, such as securing critical infrastructure like airports and seaports.

Using PESA technology, man detection ranges of up to 3, 5 or 7.5 miles (5, 8 or 12 km) and ultra-wide elevation beams (up to 20 degrees) can be achieved. This allows the radars to stand off from the area to be monitored, mounted on top of existing airport buildings, for example, giving a clear line-of-sight to the airport perimeter, while still maintaining the full integrity of the radar coverage zone. Being able to mount the sensors on the existing airport buildings make for ease of connection to readily available sources of power and network connectivity.



Figure 1 – Aerial view of a typical large tier one airport



**Figure 2 – Typical installation of 180-degree e-scan Doppler radar at a large international airport in South America**

Fully e-scan radars are entirely solid-state with no moving parts and hence have no requirement for any routine maintenance. Such radars are said to be ‘zero maintenance’ with much lower associated through-life costs and a long in-service life of 10 years or more.

PESA radars usually include a fully integrated Doppler processing engine, unlike their counterparts, which often require external radar processing servers or PCs that have to be hosted in a remote server room at the airport. Doppler processing is essential for the cluttered airport environment. As colour is to CCTV images, Doppler is to radar detection. Doppler adds a third dimension to target detection, so not only are targets identified in Azimuth and Range, but they are also discriminated by Doppler velocity – the relative speed of each object. This allows valid targets to be discriminated and separated from the surrounding airport clutter.

Another benefit of e-scanning radars is that during the scanning process, the radar’s microwave beam is entirely stationary, allowing such systems to detect very small and slow-moving targets in extremely cluttered environments.

This improves their detection capabilities and reduces the false alarm rate. It also means that e-scan radars are able to detect wild animals within the airport perimeter, including coyotes, deer and wild dogs. This offers airport operators an unexpected benefit when installing such systems. Contrast this with mechanically rotating radars,

where the continuous rotational movement of the antenna always blurs the reflected signals received by the radar.

In summary, the benefits of PESA e-scan radars are clear, 24/7 persistent surveillance capability in all-weather with lower installation costs, lower through-life costs and lower false-alarm rates.

### **The shortcomings of low-cost short-range radars for aviation security**

Over the last five to ten years, many tier one airports have experimented with the installation of relatively low-cost short-range PSRs, usually as part of an integrated perimeter intrusion detection system. Such radars typically offer maximum man-detection ranges of between 400m and 1.6km. The relatively low capital outlay associated with these small, mechanically scanned radars is initially very attractive to the airport operators.

However, the short detection ranges offered by these radars means that they must be located close to the perimeters and/or boundaries being monitored; this also means that they must be installed close to the airport’s operational taxiways and runways. Short-range radars tend to use very high frequencies and have an inherently narrow elevation beamwidth. The combination of short range and narrow beamwidth makes it necessary to site the radars close to the ground in order to avoid a shadow area below the radar and close to the area to be monitored.



This can lead to a number of shortcomings:

- The view of the radar may be obstructed by the shape of the ground, buildings and other infrastructure, aircraft and vehicles, and leads to increased multipath effects
- Proximity to the fence raises installation costs, often necessitating groundwork to provide networking and power cables for the multiple short-range radar units needed to cover the areas and distances involved. This work is generally disruptive to normal airport operations and often has to be carried out overnight
- The detection capability of radars of this type is significantly reduced in rain and they tend to not to have rain filters either, further reducing their usability in poor conditions. Short-range radars are also often positioned at the limit of their range, leaving no room for less-than-perfect weather conditions and the possibility of gaps in coverage that are not apparent to either installer or operator.
- Low cost radars also tend to rely on plot extraction taking place on a server rather than within the radar. This requires high bandwidth communication from the radar to the server and a server capable of processing data from multiple radars before information can be presented to the operator. Low-cost radars very often have a basic, unintuitive user interface, which provides poor rendering of information relating to targets to the operator and few controls.

### **False alarms**

Short-range perimeter surveillance radars also suffer from high false alarm rates. It can be very difficult for these mechanically-scanned sensors to distinguish genuine targets of interest from the large clutter returns caused by radar reflections from terminal buildings, hangars, fences and other airport structures or objects. The airport apron will also have a large quantity of legitimate moving traffic of all shapes and sizes, from A380 aircraft to small ground support vehicles. The relatively crude filtering techniques used in non-Doppler radars have difficulty suppressing clutter and an inherent inability to distinguish unique targets.

Airport operators have also experienced problems with high false alarm rates during periods of inclement weather (high winds, rain, hail, snow, etc.). Without Doppler processing, short-range radars will have real difficulty in detecting small targets in the presence of larger targets at the same range. Non-Doppler radar technology is inherently troublesome in all but the simplest environments and airport operators have reported unacceptably high false alarm rates with these radars, to the extent that it has been anecdotally stated "poorly performing mechanically scanning radars are getting all radars a bad name in airport security".

### **Poor reliability**

Because of their mechanical operation, rotating radars offer poor reliability compared to solid-state technology. In a desktop PC, for example, it is the rotating hard disks and power supply cooling fans that are most likely to fail. The same is true of rotating radars. Regular routine maintenance of the drive belts and motors of the antenna turning gear is needed to avoid breakdowns. Because of the location of the radars, this maintenance has to be carried-out when the runways and taxiways are not in use. The overall inherent unreliability of mechanical systems leads to much higher through-life costs and longer periods of potential downtime for the security system.

### **Ideal radar characteristics for surveillance at airports**

An efficient and effective radar-based surveillance solution specifically for use at airports would have a number of attributes:

#### **Configurability**

As no two airports are the same, a radar system should be configurable in azimuth, elevation beamwidth, range and scan time to suit the particular topography, building and runway layout, traffic and infrastructure arrangements of each in order to optimise performance and efficiency.

Overloading operators with irrelevant information reduces their ability to detect intruders quickly and reliably, so it is highly desirable that there should be a facility to define zones of interest to maximise the possibility of detection of genuine targets and minimise disruption by unwanted information and false alarms. Zone controls may range from suppressing simple arc, rectangular or polygonal areas altogether or filtering results from these areas according to target size or velocity, to more sophisticated techniques in which different parameters are assigned to different areas based on likely activity and potential level of threat.

#### **Flexible installation and integration**

Radar designs with wide elevation beamwidth can be located high on existing terminal buildings to avoid blocking by objects at short range, the elevated position also allows the radar to 'see' over obstacles including aircraft and vehicles. These locations are more likely to be able to make use of existing power and network infrastructure, simplifying installation and radars with on board signal processing electronics reduce both the network bandwidth required for communication with and the processing burden on the host control station, reducing ancillary computer hardware costs.



**“Sophisticated electronic scanning PSRs are proving increasingly popular with international airports, as they provide highly reliable maintenance-free surveillance of airport perimeters and key airport zones in all weather and light conditions, as well as delivering improved intruder detection performance and considerable operational cost savings.”**

Integration with camera and other security systems allows audible alarms to be triggered and cameras to be directed automatically towards the target for visual inspection. Alarm trigger conditions might be based on a range of target attributes such as location, size, velocity or track. Many operators also find it useful to be able to see the raw plot in order to more accurately interpret alarm conditions.

**Detail and distance performance**

In the cluttered airport environment, it is important to be able to discern small, slow-moving targets such as intruders on foot from larger and faster objects such as taxiing aircraft or support vehicles. This requires Doppler processing capability. Adequate range is also essential

and ideally this will exceed the designated surveillance area by a comfortable margin in order to allow for degradation of capability in inclement weather.

**Blighter PESA e-scan radars and sensor systems**

The Blighter system already forms part of the perimeter security solution at major international airports in the UK, Europe, United States, South America and Africa. A typical Blighter airport configuration consists of the Blighter B400 series PESA radar, BlighterTrack Software, and slew-to-cue Pan-Tilt-Zoom (PTZ) thermal imaging surveillance systems. The BlighterView HMI 2 control system displays and records all the elements including additional sensors such as a perimeter intruder detection system (PIDS).

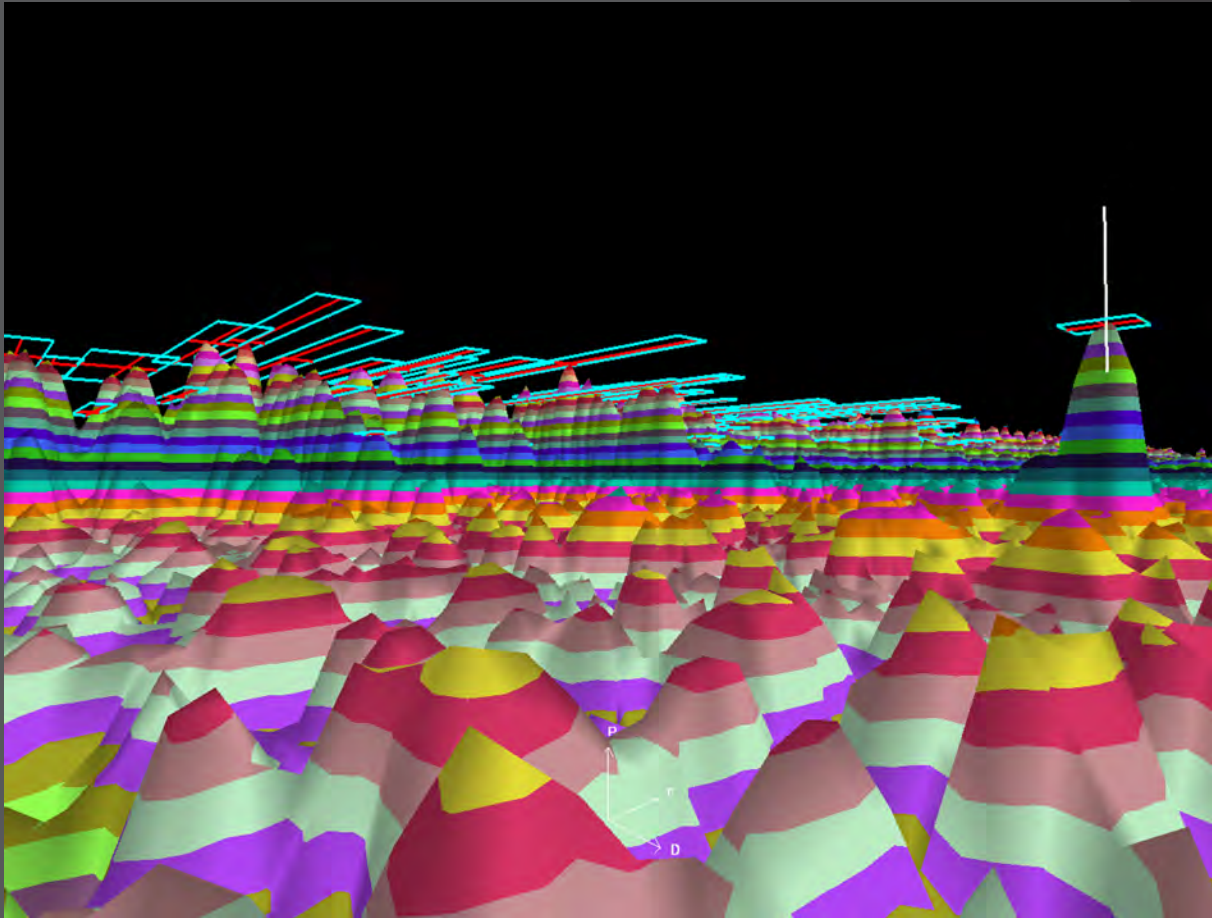
Blighter perimeter surveillance radars meet the unique requirements of airports. They are highly configurable radars that support azimuth from 90 degrees to 360 degrees, elevation beamwidth up to 20 degrees; ranges from 2 to 16 km and four scan rates. Due to their compact size and wide elevation beamwidth they can be mounted high on buildings or other existing infrastructure, gaining an unobstructed view and simplifying power and network access. Additionally because they are solid-state designs they are highly reliable and require near-zero maintenance, giving a low total cost of ownership.

Blighter’s PESA e-scan modules use a unique waveguide structure to achieve the azimuth beam steering, which requires just one efficient transmitter and one receiver unit per radar unit. This compact and simple architecture gives Blighter radars exceptionally low side lobe levels, which allows them to operate in complex and cluttered environments without detecting phantom targets from objects outside of the radar beam.

Blighter’s combination of technologies including PESA e-scan and Doppler, which are all controlled through sophisticated Digital Signal Processing (DSP) and Waveform Generation (WG) units, allows a wide diversity of radar waveforms and azimuth scan speeds. The Blighter radar allows both fast scanning simultaneous



**Figure 3 – 90 degree e-scan radar with co-mounted thermal camera system**



**Figure 4 - 3D Doppler view of detected target**

with Doppler velocity filtering using its 'Coactive Doppler fast-scan' capability. Traditional non-Doppler radar can scan fast, whereas traditional Doppler radars rotate slowly. Blighter achieves the best of both capabilities.

Blighter's advanced frequency modulated continuous wave (FMCW) transmission technology is an alternative to the traditional Magnetron pulse transmitters or solid-state pulse-compression transmitters used by older radars. Key attributes of FMCW include an enormous instantaneous dynamic range in the receiver channel, allowing small targets to still be detectable alongside large targets or clutter. FMCW is also very efficient allowing considerably less transmitter power to be required.

The FMCW transmission is like a whisper compared to the 'shout' from traditional rotating radar's high power pulsed transmitters. Blighter's low power FMCW transmission therefore cannot be detected on conventional 'radar speed trap warning detectors' meaning that intruders are not aware that they are being monitored. Also, given that the transmitter power for a standard power (SP) Blighter radar is just 1 Watt, the safe working distance (SWD)

from the front the antenna is typically only 3 meters. From behind, the radar unit is actually touch-safe, making it non-hazardous.

The Blighter radar unit contains an integrated Digital Signal Processing (DSP) unit that provides all the functions performed by a stand-alone radar-processing unit in traditional systems. The integrated DSP provides the FMCW, Doppler, CFAR, Plot Extraction and target filtering functions. The output from the Blighter radar is a low bandwidth digital data stream over a 10/100BASE-T/TX Ethernet interface.

#### **Radar and electro-optic sensors**

Almost every security radar system requires the interaction of a camera system in order to observe the object initially detected by the radar. Blighter is no exception, it provides early warning of intruders over long ranges and potentially thousands of square kilometres. Additionally it attempts to classify the target by assessing its key radar characteristics - the radar cross sectional area and Doppler velocity.



**Figure 5 – BlighterView HMI 2 (Cambridge International Airport, UK)**

BlighterView HMI 2 is PC-based control software that allows control of multiple radars and cameras with automatic slew-to-cue of cameras to target, and sophisticated control over alert and exclusion zones. Operators have a simple but highly configurable display that enables them to make decisions rapidly based on different representations of incoming data.

BlighterView HMI 2 includes an extensive long-range camera control panel with lots of functionality to provide automatic, semi-automatic and manually initiated cueing of the camera system to observe the target or targets of interest.

Typical 'cameras' include multi-sensor electro-optic camera systems including daylight colour, night-time thermal imager, often a wide field-of-view 'context' camera and sometimes a Laser Range Finder (LRF), though this is less necessary with the radar already providing accurate range measurement. Each alert zone can be configured to cue a selected camera either to a fixed point in the zone, the target position in that zone, or to initiate auto-tracking. Some camera systems include a video tracking capability, which BlighterView HMI 2 supports.

## Conclusion

Sophisticated electronic scanning PSRs are proving increasingly popular with international airports, as they provide highly reliable maintenance-free surveillance of airport perimeters and key airport zones in all weather and light conditions, as well as delivering improved intruder detection performance and considerable operational cost savings.

Integrated with cameras, the PSR platform combines the strengths of radar – wide area continuous surveillance for detection and location – with the strengths of cameras (recognition and identification of targets). These technologies also complement each other in other more subtle ways and the platform capability is generally greater than the sum of its component parts.

For more information, please visit: [www.blighter.com](http://www.blighter.com) **EST**

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# Suvarnabhumi Airport Equips Itself With DVTEL Solution

## Introduction

Bangkok's Suvarnabhumi Airport officially opened in September 2006 after years of planning and construction. The new \$4 billion airport was designed to handle 45 million passengers and three million tons of cargo a year, making it one of the region's busiest and most important aviation hub. Its seven-story terminal is one of the largest in the world, covering an area equal to 100 football fields. The airport was structured and spaced out to accommodate an increase in annual capacity up to 120 million passengers.

## Business challenges

Overall, Suvarnabhumi Airport was planned for maximum flexibility, scalability, and performance to serve passengers and accommodate future growth. Hence, all deployed systems, including security, had to meet the same exacting standards. Airport management sought out for a security technology that was 100 per cent IP-based and would only ever need upgrades and expansions. The planners envisioned an IP-based platform that would provide the highest levels of security, but also could integrate and manage across multiple systems and databases to provide greater operational efficiencies and even generate revenue streams.

## The DVTEL solution

The DVTEL Latitude platform was selected as the primary command and control management software and to provide IP network video surveillance for what would eventually number thousands of surveillance cameras located throughout the airport's passenger terminals, concourse buildings, parking areas, baggage inspection rooms, and baggage conveyor areas. Recently, the King Power duty-free operation with 180 individual stores also chose Latitude to manage over 500 cameras covering the 43,000 square feet of luxury duty-free shopping.

## Results

As the command and control centre, Latitude accesses and correlates data from 16 different integrated systems including access control, flight and gate information, fire alarms, building automation, HVAC, elevators and other data sources. For the King Power operation, Latitude enables management to conduct a central surveillance operation while each of their retail customers can also manage surveillance for their own store. This "layered management" approach ensures excellent coverage and response and redundant monitoring. Video is made available at command centres and on designated desktops, and also via wireless to official's hand-held devices anywhere in the airport complex.





In a near fully automated process, Latitude substantially increases operational efficiencies by accessing flight arrival and departure information to turn on and off lighting, HVAC, and other systems at the appropriate gate area. Once a plane departs, cameras sweep the gate area to confirm there are no passengers and personnel. Upon confirmation, Latitude shuts down all systems until the gate is needed for a new flight and it reactivates the systems.



Future plans include expanding the number of cameras: adding various video analytics capabilities, including DVTEL Scene Tracker video stitching software and integrating additional systems and data into this single command and control management system.

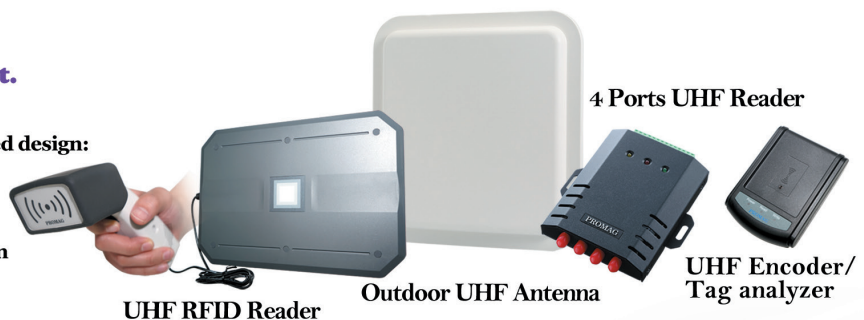
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# Christchurch International Airport Gears Up Security With Gallagher



## Introduction

Christchurch International Airport is situated on the east coast of New Zealand and receives around six million passengers and 70, 000 commercial flights per year. The airport is the main gateway for New Zealand's South Island and is a busy hub for passenger and freight movement. Originally opened in 1959, the airport terminal has undergone a number of expansions and upgrades over time. With passenger numbers continuing to grow, a new \$237 million terminal was designed and construction began in 2009.

As part of the new terminal design, the airport company, Christchurch International Airport Limited (CIAL) took the opportunity to review its security systems and look for new and innovative solutions that afforded greater system flexibility. The airport's previous security system was both analogue and digital and presented limitations on what a non-technical staff member could do within the system.

Operating technology that had essentially reached its limitation, particularly in supporting the analogue system, also drove CIAL to look at new solutions.

"To make changes, for example, add a door to the access control system, we had to get specialists in," said Ford Robertston, the airport's Manager of Quality and Security. "Ultimately, our wish list included a system our own staff could configure, hardware that overcame the reliability issues we faced with cards not reading, as well as an open platform with a high degree of flexibility and reporting capabilities."

In a legislation-driven airport environment, the airport is regulated by a number of Civil Aviation mandates and rules, which include the requirement to control and monitor all access to restricted landside and airside areas. In selecting Gallagher for the airport's security solution, CIAL found a vastly flexible system capable of withstanding extreme conditions when put to the test in



a real life emergency. “We followed a robust evaluation process and found the Gallagher product provided the best value for money and the best support structure for the airport,” justified Tim Morris, Manager of Operations and Asset Services.

Gallagher solutions now protect all primary areas of operation at the airport, including the terminal, airfield, support buildings and infrastructure. The security solution combines perimeter security, access control, and integrations with third-party systems such as CCTV and a unique customisation to create a multi-use airbridge system.

### Perimeter security

On the exterior, Gallagher’s perimeter security system provides monitored electric fencing for a small section of Christchurch Airport’s 16km fence line – which protects more than 300 hectares of land. The site’s perimeter security incorporates five vehicle auto-gates, which allow authorised vehicles access to the airfield. When drivers badge their access card at an auto gate, a photo of the cardholder appears on the operator’s screen, along with competency information. If the driver’s Civil Aviation ID, airside driving permit or another competency is due to expire, the operator is notified on screen and can advise the driver. The main auto-gate is manned 24 hours a day, seven days a week. If someone requests access at an unmanned auto-gate, their photo and competencies



are channelled to the operator at the main auto-gate, reducing after hours staff and running costs.

### Access control

Christchurch Airport is a multi-tenant site where several core organisations operate. A number of these organisations - including the national carrier, Air New Zealand – operates with independent Gallagher security-management platforms. Cardholder information can be enrolled between these platforms, enabling employees from each organisation to access multiple areas of the airport using a single access card. The multi-tenant functionality creates a flexible system that reduces the costs associated with issuing and managing multiple cards.

### Airbridge customisation

As a domestic and international airport, CIAL, Gallagher and security partner ECL Group, together developed a customisation that would enable CIAL staff to manage airbridge configuration via the security-management platform. This customisation provided the ability to move seamlessly between domestic and international airport operations. Using 14 fully-automated and motorised airbridges and access controlled doors, airport staff use workstations to configure the system and easily transition the airport from domestic to international operations - ensuring passengers are directed to secure zones including customs and immigration when appropriate. All doors are operated with an access card and once an area of the airport has been “sealed” for security (for example, an international departure lounge), access to these areas is automatically denied and they become accessible only via a security clearance entryway.

The Gallagher system was effectively put to the test during the 2010 and 2011 Christchurch earthquakes, which caused widespread damage across the city. During the second major earthquake, the airport lost network power and the site was functioning on generator supply.

The Gallagher security solution continued operating faultlessly, with controllers running on automatic battery back-up until mains communication was restored. “The system continued doing what it was supposed to under some pretty challenging circumstances” said Ford Robertson. “It was a clear indicator to us of the fully-tested, uncompromised quality and standard of the Gallagher product.”

For more information, please visit:  
[www.security.gallagher.com](http://www.security.gallagher.com) 



# China's First Airport To Be Designed And Built On The Hub Concept

## Introduction

Formerly known as Canton Airport, the Guangzhou Baiyun International Airport is one of main gateways to China. It is the largest airport in the southern part of the country, and serves as the operational base for China Southern Airlines. The airport is currently the second busiest in China based on passenger flow, and the third largest based on cargo movement. The new airport, which demanded the relocation of 20,000 people to make way for the new buildings, will handle more than 75 million passengers and 2.17 million tons of cargo annually.

## Challenge

The schedule for this ambitious project began in early 2000 with the first phase completed in 2002 when the new airport was up and running. The total project however, was not completed until 2010. The first phase encompassed design of a 3,500,000 square foot central passenger terminal complex, two runways and associated roadways and parking facilities. The second phase includes designs for an additional runway and expansion of the terminal, and the third phase includes another central ticketing terminal and 50 additional gates. Given the volatile international environment, security at airports is critical, with access control being a key factor. Access points to air traffic control operations, maintenance,



crew lounges, baggage handling, concessions, and catering requires strong control.

An airport is a logistical environment, and the system needs to be monitored to allow airport security to respond to priorities immediately with detailed, real time visual and factual information, particularly for key areas and gates.

## Solution

Requirements of the site included access control and alarm functionality, with a record of events and movements for full traceability. The Gallagher security integration platform was selected as the central management system for access

control and intruder alarms, and is extended with integration involving CCTV, alarms, fire and elevator control.

Residing on the existing Wide Area Network, using TCP/IP, the Gallagher system features peer-to-peer communication therefore if communications with the head end needs to be taken down, those on the airport using the system are not affected. This means should the airport experience network communications problems, security and access control of the site will not be compromised. Multiple workstations access the database to manage cardholders, events, check on the status of doors, override doors, and trace activity. System



division is used to enable the airport to be divided for management and monitoring purposes.

With over 20,000 cardholders, cardholder management has to be efficient and allow for changes to be applied easily to groups of cardholders. The Gallagher system manages cardholders by groups for cardholders who share the same access requirements. A cardholder may belong to one or more access groups to get their full access privileges. The system controls over 320 doors, and includes 108 boarding gates to aircrafts, 130 gates for employees, 12 doors to aircraft hangars, and elevator control.

A Gallagher Intelligent Door Terminal (IDT), using Philips Semiconductors contactless Mifare Standard technology is on each door. The IDT is a card plus PIN reader, and has a backlit dot-matrix LCD, enabling prompts, time and date, and feedback to be displayed

on the screen. Intruder alarms can be set and unset by authorised cardholders using the IDT.

Superior data protection is provided by the Gallagher proprietary format through data encryption and unique encoding on the card. Encoding issue levels and region codes in the Gallagher format ensures that even across global card databases, the card data is unique. Mifare technology allows for multiple applications to reside on a single card.


Layers of security are achieved and extend from card, PIN, and PhotoID. In certain areas voice recognition is required, which is achieved with the digital intercom integrated into the IDT. There are 13 'Gallagher Challenge' workstations, used to double-check the identity of cardholders passing through a nominated door via visual comparison of a cardholder image against a live image from a third party system.

Exit readers have also been installed to facilitate anti-passback. The anti-passback feature prevents a cardholder from re-entering an Access Zone if they have not made a valid exit from that zone. In addition to the extensive features within the Gallagher Command Centre, software and other attributes were scrutinised, which involved mainly the technology behind the system, and the life and credibility of the system. For the life of the system to be inline with expectations, it had to be proven in other large sites of market leaders, and scalable for anticipated growth of the airport. Future expansion could see the system grow to be in the vicinity of 200,000 cardholders, and 2,000 doors.

## Conclusion

The Gallagher system has been designed as a premium system for large sites as they grow to multinational enterprises spanning the globe. It is capable of supporting an unlimited number of cardholders and access-controlled doors. An unlimited number of workstations can also be established for operators to access the system according to their privileges and system division.

With the scalability, technology, encryption, and credibility demanded by airports, the Gallagher system has been duly applied to this dynamic industry, with Guangzhou Baiyun International Airport being a key example.

For more information, please visit: [www.security.gallagher.com](http://www.security.gallagher.com) 





# Mexico's International Airport Reinforces Its Security System

## Introduction

As a tourist and commercial gateway to the country, Mexico City's International Airport plays a significant role in the development of the Mexico's economy, ensuring the prosperity and global accessibility of this burgeoning nation.

It is Latin America's busiest airport, and one of the world's 30 most active airports in terms of passengers, operations and cargo. Located six miles east of Mexico City, the airport is the country's primary international and domestic hub, with direct flights to more than 300 worldwide destinations. The airport boasts an impressive array of modern facilities including restaurants, shops, hotel reservation desks, tourist information, ATMs, banks, foreign exchange, business facilities and a post office.

Further increasing the complexity of Mexico's international airport's operations – it is in the midst of undergoing a major reconstruction work, including building new concourses and a new terminal (Terminal 2). Once built, the new facilities are expected to increase airport passenger capacity by nearly 50 per cent. This will enable the airport to handle an additional 16 million passengers per year, up from the current 32 million travellers who pass through.

However, with so many activities going on, the issue of access control is a key consideration. With

nearly 340, 000 flights in a year, and about 20, 000 staff on site, the airport has significant access control requirements. As a regional leader, Mexico international airport's management turned to HID Global to help address its needs.

## Layers of security

Wanting to prevent terrorist attacks and protecting the domestic and global transportation network, transportation security is a critical mission for any airport. One of the ways airports has effectively provided traveller security is by setting up layers of security to protect

airline passengers. These layers of security measures include airport checkpoints, canine searches, air marshals, luggage inspection and explosive material detection. Each layer of protection, on its own, is capable of preventing terrorist attacks and if altogether, its security value is exponentially higher, creating a much stronger overall security system.

Another omnipresent layer of airport security is access control. Controlling access to key airport functions is a critical security task. Given the size, amenities and complexity of the international airport, controlling access to areas can be a huge task.





## The iClass solution

1. Significant authentication capabilities needed at the credential level
2. Scalable credential issuance procedure for future expansion
3. Biometric solution allows precise access control to restricted areas, virtually the possibility of counterfeiting

## The airport's access control needs

When the time came for Mexico City's international airport to consider a system upgrade, Manager of Airport Identification, Enrique De la Mora, a member of the airport's security staff worked alongside integrator Ernesto Ibarra from IR Systems S.A. de C.V. to define the access control needs. In evaluating various offerings, the airport's security was dependent on the following considerations:

- **Size and Complexity:** With AICM's size, amenities and complexity, controlling access to restricted areas would be a massive undertaking.
- **Multi-factor Authentication:** Concerned with vandalism and identity theft, the airport identified that it would need some type of multi-factor authentication to maintain strict access control to restricted areas like VIP rooms and operations areas. AICM management had to ensure that the "right" people would get in, but the "wrong" people would be kept out.
- **Secure Credentials:** Significant authentication capabilities were needed at the credential level. The credentials chosen by the airport would need to be counterfeit proof, ensuring the integrity of the card issuance process.
- **Scalable Solution:** Credential issuance would also need to be a fluid, yet secure process. The credential issuance procedure would have to be scalable to address new locations and employee status. With the expected opening of a new terminal, AICM management wanted to ensure that it would only need to provide badges for each employee once, for all facilities.
- **Latest Technology:** The international airport has been using an integrated 125 kHz proximity-based access control system, powered by HID cards and readers, since 1998 and both De la Mora and the airport management were ready to upgrade to the latest technology.

After determining those needs, to address its mission-



critical requirements, the airport management decided that HID Global's innovative applications of technology and expertise on cards and readers were still the best-fitted solution.

## Putting the new solution in place

Already having customer-based history with HID Global products, the airport management felt assured and comfortable when purchasing access control hardware. The airport management set up a new access control system centred on the V-Smart iCLASS access control readers and 16k bit (2k Byte) contactless smart cards.

The equipment, supplied by Bioscrypt and HID, requires biometric authentication in addition to identity verification for card carriers to gain access to restricted areas. The fingerprint readers include HID iCLASS 13.56 MHz read or write contactless smart card technology, to manage access to restricted sites within the airport, like VIP rooms and operations areas. Combining biometric read capability (using Bioscrypt's fingerprint authentication) with a HID iClass contactless smart card read/write module, the single unit reader represents optimal dual factor authentication for high security at this vital site.

"With V-Smart iCLASS, the identity verification process is doubled. If someone wants to go through a controlled door, he must first identify himself by presenting his access control card. Upon accurate reading and verification of the card, the cardholder then places his finger on the biometric reader to prove that the person carrying the credential really is the person the credential is issued to. This way, it is practically impossible to enter with a card that does not belong to the card holder," De La Mora emphasised.



## How HID Global solution addressed the airport's needs?

Given the number of airport staff and potential intruders, De la Mora suggests that efficient operations surrounding identity verification and clearance to the airport's restricted areas would truly present a logistical challenge without the V-Smart iCLASS reader electronic access control system. The airport's large card user base, including employees, airline staff, cleaning and maintenance staff, and luggage transporters, suited the use of a biometric solution for access control.

### 1. Multi-factor Authentication

For high security at this vital site, users of the new access control system will have to present an identity credential to the reader, and then have their fingerprint read by the Bioscrypt device to authenticate the cardholder's identity. This makes it nearly "impossible for a person to enter the restricted areas with someone else's card," affirmed Enrique De la Mora, Manager of Airport Identification department.

### 2. Secure Credentials

The credentials chosen by the airport employ the latest security features, including extra secure printing features. Credentials feature a colour photograph of the user, his/her name, title, employer, personal date of use and other data printed on the card. The card also includes a colour code that identifies the card carrier's functional area, with a holographic over-laminate for increased security.

### 3. Scalable Solution

In current state, the Airport's Identification Management issues between 25 to 50 permanent credentials and about 200 temporary credentials on a daily basis. Card issuance is expected to increase when Terminal 2 operations begin.

Current cardholders can use the same identity credential to go from the airport's Terminal 1 to the new Terminal 2. The administration will purchase an additional 51 VSmart iCLASS readers to manage access control when the new terminal comes online.

### 4. Latest Technology

Fingerprint biometric readers have proven to be a reliable and mature solution, making it a primary technology for airport deployment around the world. The V-Smart iCLASS reader provides dual authentication security by ensuring "what you

have" and "who you are". With strong compatibility between iCLASS and the access control system, the Bioscrypt V-Smart iCLASS system can be seamlessly and cost effectively integrated to meet the airport requirements. The biometric verification occurs locally at the V-Smart iCLASS reader and not remotely at a server. Storing the biometric template securely on the iCLASS contactless smart card eliminates the added cost of having to install a separate hard-wired network for template management.

In addition to these features, the airport management was swayed by HID's entire standard service offering that comes with its products, ensuring a successful security integration. One feature of HID's service offering is its Corporate 1000 program, which offers a custom-created, 35-bit card format exclusive for the end-user, establishing a "Single Card Solution." Under this program, more than one million individual card numbers are available to the airport, tracked during manufacturing to ensure no duplicate card numbers. The Corporate 1000 program also guarantees that the airport's authorised integrator, IR Systems, is the only entity able to purchase cards from HID Global on the airport's behalf.

## Conclusion

Through its people, processes and technologies, airport patrons (whether tourists, business travellers, or freight transporters) can continue to rely on the airport's massive international network of commerce, generating enormous opportunities for Mexico's economy. A secure international airport enables the country to participate more fully in the social and economic benefits of the North American Free Trade Agreement (NAFTA) as well as access to global trading partners.

HID Global aims to provide the ideal solution for transportation security. Occupying the access control "layer" of security, IACM is seeing the benefits of HID and Bioscrypt's advanced fingerprint technology solution as it implements counter terrorism security measures.

For more information, please visit:  
[www.hidglobal.com](http://www.hidglobal.com) 



# Myrtle Beach International Airport Upgrades To AMAG's Symmetry SMS



## Introduction

Myrtle Beach International Airport serves over 1.5 million travellers each year to and from one of the most popular golfing destinations in the United States. To accommodate the growth the area has experienced, the airport replaced its legacy security system, which was no longer servicing its needs with AMAG Technology's Symmetry Enterprise Security Management System (SMS), intelligent field hardware and smart card readers with bi-directional encryption.

Based on scalability, ease of use and operation, along with the lower cost of maintaining the system, they chose AMAG's Symmetry SMS, integrated with NetDVMS digital video recording platform from On-Net Surveillance Systems, Inc. (OnSSI) to provide a powerful IP-centric solution. Airport officials highlighted how secure the system was from end to end and the enhanced video integration that the new system offered. They replaced their old analogue video system with a digital system that is seamlessly integrated to Symmetry at a high level through the software. The IP security solution is one of the first all digital security systems in the South Eastern United States.

## Identity verification

Myrtle Beach implemented an extensive identity verification

system to confirm a person's identity before allowing them onto the airport ramp. When a person swipes their access credential at a gate, a camera automatically turns and locks onto the face of that person. The person's face appears on the SMS screen in the command center where a security operator can compare the camera view with the picture captured in the Symmetry software. If it matches, the security operator allows the person to enter his or her PIN and grant access through the gate.

The AMAG system has approximately 100 smartcard readers with PIN to control access to the security identification display area (SIDA), which includes the baggage belts, bag make-up, all perimeter gates, general aviation area and access to the fuel farm.

## Command centre monitoring and control

The airport's command center contains two security stations with 14, 24" monitors and two 50" LD displays to provide a clear view of its 80+ cameras. If a door goes into alarm, the system displays an image of the door and its cause for alarm at the security station. If the alarm is determined to be false, it's acknowledged and terminated. If it's a valid alarm, the security operator will call the airport police and investigate promptly.

There are three screens in each security station. Alarms are displayed in Symmetry's virtual matrix on the third



screen, which is active all the time. The virtual matrix allows the security operators to customise their views. When an alarm sounds, the camera screen reporting in that alarm can pop up into a larger view, making it easy to identify what is happening, and security operators can make instant decisions.

Cameras are posted throughout the concourse and ticketing area in case there is an issue with people purchasing tickets or checking-in (or in case there are issues at the passenger check-in location). Cameras monitor the bags going through the bag make-up area and baggage claim to prohibit anyone from crawling through a door and causing a liability. Cameras also monitor escalators and steps for liability reasons, as well as all entrances to the jet bridges. Outside, cameras are located at every gate around the airfield exterior and every jet bridge.

### AMAG and OnSSI's integration

Myrtle Beach built their IP-centric solution by integrating AMAG's Symmetry SMS with OnSSI's NetDVMS digital video recording platform, which features extensive live video, archive and event management, powerful investigation tools and multiple video clients to assure the delivery of video from any camera, wired or wireless, to any user. The integration makes the system readily and easily expandable, as NetDVMS supports IP cameras and encoders by leading manufacturers in formats including HD/Megapixel, 360-degree and specialty cameras.

"When we want to add a camera, the only purchase required is the camera and license," said Myrtle Beach International Airport, I.T. Director of Airports, Scott Van Moppes. "The camera can then plug into any available network port, which unlike an analog system, is generally

very close to the new camera location."

Doors and cameras are powered from centralised locations and are on battery back up. In the event of a power failure, the battery back up allows the system to remain functioning until the generator kicks on.

"Running all power from a centralised location is one nice feature of having a fully digital solution," said Mr. Van Moppes.

Myrtle Beach Airport's more than 80 cameras constantly recorded activity. They installed an OnSSI video server with approximately 22 terabytes of video storage to accommodate 30 days of video storage. Storage is easily expandable with the addition of a cost-efficient server.

"The video server provides us with all the storage we need," said Mr. Van Moppes. "We like using a computer with attached storage rather than having to buy additional hardware equipment to accommodate our storage needs."

### Threat level manager

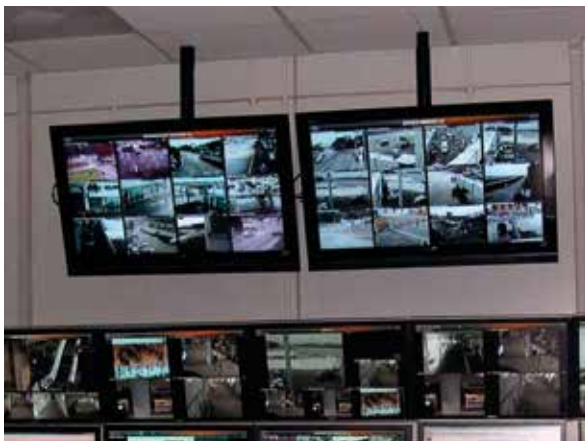
The airport also installed the Symmetry Threat Level Manager module. Threat Level Manager provides a simple way to change the security level of the airport, in accordance with the current threat level issued by the Office of Homeland Security, and lock down a specific set of doors with the click of a button.

"The threat level advisory is currently set at code orange," said Mr. Van Moppes. "If the threat level changes, we simply change the threat level within Symmetry." Threat Level Manager provides a fast way to isolate a bomb threat, for example, if there is a threat in terminal B, the entire terminal can be instantly locked down. Unattended luggage could also be isolated using threat level manager.

### Biometrics

Being an all-digital security system, it is no surprise the airport was interested in biometric technology to add an additional layer of security to critical areas. Mr. Van Moppes wanted to test a biometric reader out before installing them throughout the airport, and installed a fingerprint reader to gain access into the Operations Centre.

"We wanted to make sure they worked and they work great," said Mr. Van Moppes. "We plan to use them





for access to the administration offices and jet bridges. The jet bridge is your last secured door between the airplane and sterile area, therefore it's the last point of defense before someone enters an airplane."

**Unforeseen Benefits**

- Symmetry's copy feature allowed them to add a door or gate quickly. Just copy and paste an existing gate, edit a few text boxes and you instantly add another door in five minutes. In their old system, it would have taken 90 minutes to add one door.
- The bulk amendment feature allows them to add or delete an entire group quickly. Easily add or subtract a door or permissions to customize.
- Symmetry is a true Window's based system. This makes it easy to navigate.

**Johnson controls**

Johnson Controls installed AMAG's Symmetry SMS at the airport. Johnson Controls integrates technologies, products, and services to create smart environments that protect people and secure assets. They responded thoroughly to the RFP developed by The Burnes Group, who worked closely with Myrtle Beach Airport to develop a comprehensive security solution featuring advanced technologies that delivered simplicity of operation, enhanced effectiveness and cost-effective protection.

"We are thrilled with the level of service that we received throughout the installation process from Johnson Controls," said Mr. Van Moppes.

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# Multi-Security Layers Secure Columbus Regional Airport



## Introduction

Columbus Regional Airport Authority (CRAA) oversees the operations of Port Columbus International Airport, Rickenbacker International Airport and Bolton Field Airport. To effectively comply with the Transportation Security Administration's guidelines and secure its buildings, employees, passengers and assets, the CRAA conducted a top to bottom risk vulnerability assessment. Through that assessment, the CRAA became concerned about the reliability and serviceability of its existing access control system. Government regulations required access control in airports, and the CRAA enlisted the help of Security Risk Management Consultants, Inc. (SRMC) to find a new security management system.

Airport officials created a committee to assess different manufacturers and their products. After meeting with each manufacturer and evaluating their software, the committee selected AMAG Technology's Symmetry Homeland Security Management System (SMS).

Working with Ingersoll Rand, SRMC inventoried the entire existing security system, down to each door. Ingersoll Rand inventoried door hardware while SRMC tested the door to see if it was working properly. As part of the new access control system design, a door hardware schedule was included for the upgrade to more contemporary electrified door hardware, removing electro-magnetic

locks and strikes and to assure non-functional devices were repaired or replaced.

According to MaryJo Holtzapfel, Lead Security Technician, Public Safety/Columbus Regional Airport Authority, the CRAA facility created a huge security challenge that required a cohesive multi-layered solution, which addressed the different needs of passenger terminal and aircraft movement areas.

## Solution

AMAG's Symmetry Homeland SMS integrates with AlPhone's intercom and Verint's hybrid video system.

An Airport Communication Centre (ACC) that is staffed by a public safety dispatching crew monitors the interior of the airport and all runways via the Symmetry Homeland SMS and Verint video system.

Symmetry is integrated with Verint's video and when an alarm sounds and is associated with a door or area with a Bosch high resolution colour camera, the video appears on the monitor. Public Safety Dispatchers assess the situation and dispatch Police Officers if appropriate. A clickable icon within Symmetry allows the security officers to launch all video associated with the alarm, including before and after the alarm event.



Approximately 423 cameras are online to help the Public Safety Dispatchers view all areas of the airports. All video recordings are IP based and streamed into encoders. As a result, video playback is a better recording and can be sent to a flash drive or DVD drive to play on a media player.

“The integration of the security systems with video surveillance allows us to effectively deter, detect and apprehend perpetrators before they can damage property or threaten the security of the airport and those people within the airport community,” said Holtzapfel.

Microwaves on the runways transmit signals and trigger alarms through Symmetry if anything reaches its pathway. The alarm notifies the Public Safety Dispatchers who can see what triggered the alarm to determine if it is authorized to be on the runway. Monitoring alarm inputs via Symmetry Homeland SMS alleviates the need to post police officers throughout the concourses and runways.

Symmetry’s mapping feature allows CRAA to map out the airport’s floor plan. When an alarm sounds, Symmetry launches a map of the area triggering the alarm. The Public Safety Dispatchers can see where the alarm is occurring on the map, as well as a live view on the camera screen. This provides fast identification so dispatchers can respond quickly if necessary.

Employees receive their badges at one of two badging stations. An employee’s information is entered into the Symmetry system where it is uploaded via the Central Card Handler and sent across the region. Columbus Airport created custom scripts files to allow them to upload a cardholder’s information across the region. The custom script allows security officials to enter badging information at the head office and then it is pushed to the regions.

“If an associate who has access to all regions within the airport gets fired, the associate’s access must be immediately restricted across the board,” said Miller. “It doesn’t matter where they make that change, it immediately gets pushed to all regions and it’s instantaneous.”

### Meeting government requirements

CRAA also installed Symmetry S843 Smartcard readers with keypad throughout the airport. The reader is on the Government Approved Products Lists, meeting the necessary requirements imposed by the government.

“The Symmetry Homeland SMS is a physical access control system that allows video integration, therefore providing



the most secure and cost effective way for the airport to comply with existing regulations, while allowing us the flexibility to address new regulations and mandates,” said Holtzapfel.

### Threat level manager

CRAA implemented Symmetry’s Threat Level Management module to help control access. Threat Level Manager allows security to be enhanced when there is an increased threat, such as when someone from the no-fly list is trying to board a plane.

At CRAA international flights are dispatched to the Rickenbacker airport where a governing entity takes control of the security. Controlling access is governed by TSA and Homeland Security. Access levels are dependent on the current threat level imposed by the Department of Homeland Security.

If someone comes up on the no-fly list, the Symmetry SMS along with the security staff assists TSA to make sure the person doesn’t get on a flight or in a specific area of the airport. Threat Level Manager can instantly change the level of security where a no-fly individual may be and isolate them.

### Conclusion

Symmetry allows Holtzapfel and her staff to create custom reports needed to meet TSA and other government requirements. Reports are easy to create and distribute, and provide a wealth of knowledge when it’s critical to know who was where and when.

**For more information, please visit:**  
[www.amag.com](http://www.amag.com) **SST**



# Singapore Airlines' Top-Most Priority: Customers' Safety And Security



Photo courtesy of Singapore Air

## Introduction

Singapore Airlines is reportedly one of the world's leading carriers with 16 million passengers per year, flying its top-ranked gateway spanning through five continents and 59 cities. Widely recognised as a symbol of service excellence, the airline carrier is committed to providing customers with the best flying experience through an innovative service offering.

## First class security

Safety and security is seen by Singapore Airlines as a top priority. To achieve its highest level of commitment together with a security policy of "zero lapses", Singapore Airlines chose to embark on a security journey CEM Systems. They decided upon the advanced CEM AC2000 Standard Edition (SE) access control system to secure its operations at multiple sites throughout Changi Airport, Singapore. Hundreds of CEM S600s intelligent card readers supporting DESFire smartcard and fingerprint biometrics were installed to provide a high level of sophisticated security.

## Integration

Going beyond access control, CEM provided Singapore Airlines with a reliable and fully integrated Building Security System that included links to the Human Resource SAP system, an interface with the existing Visitor system and digital CCTV/DVR systems integration. As a further means of integration, CEM also provided the ability to personalise DESFire



smart cards on behalf of the client, creating a “one card” solution for various applications including access control.

### All security links secured

To ensure high security at every link in the security chain, the building security system featured distributed intelligence at all layers of the system design, from sub-system level using CEM S9020 controllers, right down to intelligence at the door, using the S600s reader with an onboard database and embedded DESFire technology.

The S600s reader proved ideal for Singapore Airlines with its ability to support multiple card technologies. With the airline using existing MiFare cards and looking to introduce DESFire cards gradually, the S600s allowed both technologies to be used simultaneously, providing a convenient upgrade path for the migration to high speed, high security DESFire technology.

Creating a fourth level of security and eradicating the risk of weak links at card level, CEM also conducted hardware development to embed the DESFire encryption code into the S600s readers directly, with diversified keys unique to both the card and the client. With the introduction of a smart card solution, Singapore Airlines has embraced the Singapore National Authentication Infrastructure (NAI) platform in their endeavour towards a common biometrics identification programme. As such, fingerprint biometrics will continue to be rolled out throughout sites with the future goal of encrypted fingerprint and data secure on card.

As an added guarantee of “zero lapses”, Singapore Airlines also chose failover dual redundant servers.

### CCTV and DVR integration

CEM provided integration with multiple Digital Video Recording (DVR) systems installed throughout Singapore Airline’s sites at Changi Airport, including integration with Pelco digital DVR. Using the CEM Alarm Event Display (AED) application as an interface, integration was achieved using access control alarms to automatically trigger DVR recording; with live and/or pre-recorded CCTV/DVR coverage instantly available to security personnel from a single graphical interface.

### Visitor and SAP Interface

CEM conducted software development to create interface links to both Singapore Airlines existing Lotus Notes Visitor application and the SAP Human Resource

system. Seamlessly integrating with existing application infrastructure, CEM developed batch file interfaces to transfer data from these existing systems onto the AC2000 SE server.

For visitor integration, CEM created a VNS software link, with batch files of visitor data (including visitor name and Singapore NRIC identity/passport number) transferring to the access control server at regular intervals. As a more enhanced, comprehensive approach to visitor management, Singapore Airlines also chose the CEM AC2000 Visitors module with customised screen designs, which building on the Lotus Notes application data offers features such as temporary visitor ID badging, assigned card wizard, allocated escort/approver department record and many more.

For SAP Human Resource integration, CEM developed a similar interface to that of visitors, with batch files of personnel information automatically networking to the AC2000 server daily. As ID cards for new staff are required quickly, a real time polled interface was also developed with CEM designing a new XML application to query and poll “real time” personnel information from SAP for immediate card issue. Acting as an instantaneous link between SAP and AC2000, the XML application allows ID staff to issue cards 24/7 via the AC2000 personnel application. Co-sharing data and networking with SAP, the access system is also programmed to transfer daily all personnel images captured that day; resulting in the extraction and co-sharing of data via one operational process.

As a further enhancement, the CEM batch interface builds the complex Machine Readable Zone (MRZ) strings commonly used on passports and stores them in the AC2000 database so that they can be easily printed on Singapore Airline passport style ID cards. Using several card formats such as temporary, term or contractor passes and with thousands of employees, Singapore Airlines has different badge design permutations with personnel card privileges and expiry date predetermined by a personnel crew indicator; Non-Flying Staff, flight Crew and Cabin Crew.

### Thinking global, acting local

As a continuation from the AC2000 SE system at Changi Airport sites, Singapore Airlines now has future plans to roll out the system on a worldwide basis.

**For more information, please visit:**

[www.tyco.com](http://www.tyco.com) 



# Indira Gandhi International Airport - The Travelling Platform For 22.84 Million Passengers Annually

## Introduction

With around 22.84 million passengers travelling through its terminals each year, Indira Gandhi International Airport is easily one of the busiest in the world. As part of a \$2.6 billion, 20-year phased development program, Delhi International Airport Ltd (DIAL) added an additional passenger terminal building (Terminal 3) to the Indira Gandhi Airport. The Terminal 3 site spans 500, 000 square metres and features more than 160 check-in counters with a capacity of 34 million passengers per annum.





To secure Terminal 3, DIAL and Bureau of Civil Aviation Security India (BCAS) required a proven access control solution, which could utilise IP technology and be fully integrated with other systems in the terminal. The aim of the project was to deliver a flagship airport solution for India.

“The Indira Gandhi Terminal 3 project represents a landmark development in the aviation sector within India and both ADT India and CEM Systems are delighted to be involved,” said Ramesh Jayaraman, Managing Director, ADT India. Employing over 130 engineers onsite, ADT India installed the industry’s leading CEM AC2000 system to secure the Terminal. The system offers a fully integrated IP based access control and video solution.

### System integration

The AC2000 system installed at Indira Gandhi has been integrated with several other sub-systems to provide a central security management system (SMS) providing the client with one user-friendly command and control graphical interface. Using the CEM AC2000 Alarm Event Display (AED) application, AC2000 can manage IndigoVision NVR alarms from 2600 cameras with video analytics from the common front end. This means that when an alarm is triggered on the access control system, an administrator can simply view both live and recorded video footage. All of the systems will be monitored via the AC2000 AED application.

### IP card readers

Over 3500 CEM IP card readers were installed throughout the terminal, making the installation one of the biggest IP based access control systems in the region. CEM S610e IP card readers utilised existing Ethernet connectivity installed at the airport. These readers feature a large internal database for offline card validation ensuring zero system downtime. The reader also comes with a graphical LCD display, which allows meaningful messages such as ‘Card Expiring’ or ‘Wrong Time Zone’ to be displayed.

In addition to securing doors, S610e readers have also been used to secure 74 Passenger Boarding Bridges at Terminal 3. Before an ‘airbridge’ can be activated, a valid card must be swiped on an S610e card reader to enable the controls. As cabling had to be kept to a minimum at Airbridges, the CEM readers were powered using Power over Ethernet (PoE) technology.

S610e readers also control 168 check-in desks at the

airport. Desks are enabled by utilising ‘Equipment Enable’ door mode on the S610e reader. This offers the benefit of allowing the airport to report on the usage of check-in desks by each airline.

### Door modes

A Passenger mode on the S610e readers will allow efficient use of Gaterooms where by airline staff can put a door into ‘Passenger Mode’ with extended door open time for arriving or departing passengers.

To secure equipment rooms and critical points on the Airside or Landside boundary, Delhi Airport chose the CEM S610f fingerprint readers. This provides highly sensitive areas with three layers of security – PIN, Card and Biometric verification. Fingerprint templates are captured at the same time as ID cardholders are enrolled on the system.

### Portable access control

The airport has also opted for CEM’s industry leading S3020 Portable Readers. These handheld units are designed for ID card validation at remote sites or temporary entrances, which have no power and will be used to monitor staff movements and non-access controlled points along the Airside or Landside boundary.

### AC2000 Software

In addition to the AC2000 AED application, the AC2000 system features a number of operational applications that will benefit the airport. AC2000 Visual Imaging and Pass Production System (VIPPS) allows security personnel in the ID unit to capture personnel images, logos and signatures and incorporate these into professionally designed passes. The Terminal 3 installation features five enrolment stations, allowing multiple users to be enrolled at any one time.

Offering a fully integrated biometric access control solution, the enrolment stations can also be used to capture fingerprint biometrics when cardholder profiles are being originally setup.

AC2000 also offers Delhi Airport Terminal 3 a host of other management applications including ‘Visitor Management’, ‘Time & Attendance’ and ‘Vehicle Management’.

For more information, please visit: [www.tyco.com](http://www.tyco.com) 

**>>** *SECURITY FEATURE | BEST PRACTICES PROVIDE BEST VALUE WHEN IMPLEMENTING KEY CONTROL AND ASSET MANAGEMENT SYSTEM*





# BEST PRACTICES PROVIDE BEST VALUE WHEN IMPLEMENTING KEY CONTROL AND ASSET MANAGEMENT SYSTEM

**K**ey control and asset management technology is seeing significant growth across a broad range of applications, and for good reason. It is a reliable and cost effective method to improve building security by ensuring that facility keys are properly managed with regard to access, storage and tracking. Key management systems can reinforce access control policies that are already in place and can also help to reduce the costs associated with lost keys or unmanaged access.

The effective implementation of a key control and asset management system can be achieved through best practices to realise decreased operational and financial risk and provide the best value from the application. This article presents several best practices for deploying key control and asset management solutions.

## What you need to know about technology

Key control and management systems are defined as an orderly and secure solution for addressing controlled usage and safekeeping of mechanical keys. The tamper-proof systems are designed so that only authorised users – using pre-programmed PIN codes, access cards or biometrics – can access keys, while on-board advanced technology automatically records all access activity.

A basic system typically consists of a computerised key storage cabinet, a key locking mechanism and a tracking system. From this basic package, several options and design variations can be added to customise the solution and help protect the investment as needs grow and change. For networked installations, management software can also be included in the system. Permission levels can be established for each user and data can be monitored from any desktop connected to the network. Additionally, the software can run activity reports, sort based on different criteria and view and print reports, among other uses.

Vital documents, cash, employee badging/access control cards, data drives and even small electronic gear can also be controlled and secured using asset management lockers or keycard modules that can be integrated into a key control system. Asset locker systems are identical in function to key control systems; users can access items only from the lockers/modules for which they have been pre-authorised and any activity such as removing or returning items or opening lockers/modules is automatically recorded in an audit trail.

Today's key control and management systems have become a higher-level management tool for effectively addressing the safety and security of



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

building occupants and the security of the building assets. Knowing the identity of authorised key holders, which keys they have in their possession or have access to and when they were used are all essential pieces of information needed to help ensure a safe and secure environment. Further, technological developments and open protocols have made it possible to integrate key control with access control and other security systems as part of a facility's networked security system. Now, a user who has taken a specific key can be denied egress from the facility until the key is returned – and selected management can be alerted via email if a key has not been returned on time.

Key management systems have become an operational necessity in environments such as correctional institutions, hospitals, car dealerships, property management, casinos and educational facilities, to name just a few examples. Key management is also a critical function for anyone overseeing security at conference centres, government agencies, control rooms, automotive businesses and corporate buildings. However, key control can and should also be applied to businesses of all sizes because of the measurable benefits of enhanced security and convenience, as well as increased staff productivity and accountability.

### Getting started

Implementing a key control and management system is a straightforward process that involves a few basic steps: take inventory of the facility to identify all access points and installed locks, ascertain the operational needs of employees as well as of others who may need access to the facility (e.g. service repair or cleaning crew), and establish a policy with easy to follow procedures for effective key control and management.

The first step is to catalogue every access point and every piece of door hardware. This process is followed by management assessing which individuals have keys, which keys they have and which doors they access. Without this preliminary audit, it is almost impossible to know what size and type of key cabinets will best fit your needs and where the key control systems should be located.

System growth should also be factored in at this stage of planning. What may seem adequate today may become insufficient in a year or two. The ability to add on the exact components you need, or change modules where and when you need, helps protect your investment. This way you will avoid having to rip and replace an entire key control and asset management system because the current system cannot accommodate lockers for securing cell phones or other valuable items, or does not integrate with a new access control system.

Next, review operational needs to understand how the facility works on a day-to-day basis, so that use of a key control and management system is efficiently optimised and daily operations are disrupted as little as possible. Whether the facility is a hospital, dormitory, hotel or an office building, having a comprehensive grasp of daily activity will help in implementing a key control system and will also help in minimising the trade-off between security and convenience.

If a networked key control system is planned, a review of the network topology will reveal any configuration and

**“Today’s key control and management systems have become a higher-level management tool for effectively addressing the safety and security of building occupants and the security of the building assets.”**

performance alterations that may need to be applied. Compatibility with other security systems should also be reviewed to maximise interoperability for more comprehensive integrated operations.

A simple but strong set of guidelines for administration and use of the key control system will help to define areas of responsibility and enable better control of the keys.

### Designing and customising the system

Configuring a key control solution is as easy as identifying needs and then building the system with modular components that meet those needs. Users select a cabinet size, and if more than one cabinet is required, the arrangement can be linear (side by side) or stacked. Cabinet doors may be solid steel or they may be see-through polycarbonate designs.

Choices for modules to fill the cabinets may include a selection of key storage modules, credit card modules or simply blank modules (to be filled at a later time). The combination of modules is entirely up to the user, providing the ability to customise and also change the system to meet growth or other specific needs.

Custom modules and lockers that can accommodate plastic card keys or other valuable items may also be included in the system. Lockers, available in various configurations, can be used for storing credit cards, small firearms, cell phones, two-way radios, laptop computers, tablets, cash trays and so on, and can be managed as efficiently as keys in key control systems. Items can be returned to any open locker for convenience, and systems can be set up as personal storage spaces for one or multiple users.

Key control and asset management systems can also be configured with additional security features to help enhance the integrity of the system. For example, where protection of asset lockers itself is mission-critical, installation of a remote access device provides an additional layer of protection by enabling the locker system to be placed



in a secure room. A second individual's PIN input and verification are then required in order for an authorised employee to access the contents of a locker.

Access to the key and asset cabinets can also be customised, with options including a built-in keypad, biometrics such as a fingerprint reader and a magnetic or proximity card reader. Systems that integrate card readers for access can often utilise the access control cards that are already in use throughout the organisation, making the system implementation easier and more convenient.

Changes to an individual's access authorisation can be made instantly by program administrators. The optional user interfaces can be integrated directly into the cabinet for easy accessibility or they may be separate. In either design, users can access only the stored items that they have been authorised to remove or return.

### System integration

A key control and asset management solution can usually be integrated with the existing physical security system without costly upgrades or overhauls. For example, asset control systems featuring alarm and relay inputs/outputs can be integrated with existing video surveillance systems for additional security. Ethernet and USB capability help to ensure system compatibility and integration. Key management systems can also integrate with a facility's existing identification cards.

The compatibility with other security systems and network access offer an added richness and usability and integration with existing databases saves time and money. Ethernet or TCP/IP communications ports allow ease of use for direct connectivity to printers or other devices, or networked connectivity via Ethernet.

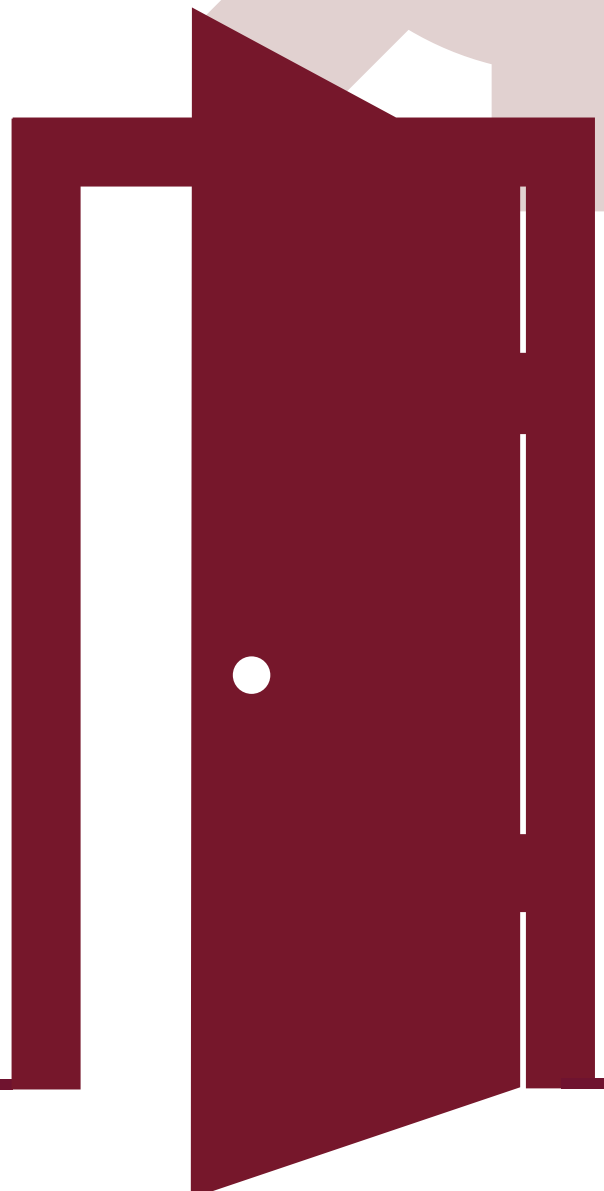
### Software add-ons

One of the enabling factors for successful key control implementation is the ability to manage all programming, remote functions and reports for the system with a software-driven solution. Similar in concept to popular access control systems, the PC-based package of key management software helps make day-to-day operations and activities easier and more fluid. Users can be added from a global list and all specific settings (added or modified) will be automatically synchronised across the system. Profiles can be assigned for improved user control, and administrative access levels have various options to be tailored to specific needs such as reports only or alarms only.

Built-in schedulers can be programmed to automatically

download all data to a secure PC as required by the user. With this capability, management can better sort and analyse information to maintain maximum control of access and security issues.

Scheduled email reports, detailing what keys are in or out and who has/had them, keeps security management informed and up to date. If an incident occurs, management can query the system for specific details, such as a listing of all transactions between certain times; and when doing a follow up investigation, management can request a report for the hour preceding the incident. Or, immediately following an incident, a report can be generated showing which keys are back in the system and which keys are still out and who last accessed them. Together with the audit data from an access control system, a key control system's reporting system provides a strong evidence trail.





## Mobile applications

Advanced communication capabilities also enable key control systems to be monitored and administered remotely from PDAs or smartphones as well as from the desktop. Apps for automated key control systems enable users to maintain control of keys no matter their location. At any time, an authorised user can see real time transactions and information about keys that are in use and any keys that are overdue, as well as about where and when alarms may have been triggered or overall system status. For investigative purposes, managers can even review key usage to determine who may have last accessed a key for a vehicle that was found damaged. Having this information available on a mobile device is like having a remote office.

Notifications and events are automatically sent to authorised personnel, allowing them complete control of the system. They can cancel an alarm and even, if necessary, remotely disable user privileges. These features, along with multiple others, provide the mobile user with a greater level of convenience and control when it comes to key control management.

Mobile applications are quickly becoming a preferred platform for security managers accessing key control data and even to perform transactions. The result is improved safety and integrity of the facility.

## Application examples

### Educational facilities

A robust key control and management system can provide an additional layer of security and information for first responders in an educational environment. For example, badges can be pre-configured and distributed to designated first responders and, in the event of an incident, when they reach the scene they simply scan the badge

into the system and the critical emergency keys will be released. It's also important to remember that in addition to traditional first responders such as fire, law enforcement and EMS (emergency medical services) personnel, there is a wider circle of school staff and departments that play an integral role in emergency situations. Key control systems that are strategically located, networked and easy to use/manage add to an individual's ability to efficiently cope with an emergency.

Many schools (both public and private) today at all levels are battling budget cuts to their operational expenditures, and key control systems may help reduce costs. For example, services by janitorial or maintenance staff can be shared among several schools in a district rather than be dedicated to a single school, or teaching/support staff may be assigned to more than one school.

In these instances, instead of issuing duplicate sets of keys to several employees (and potentially creating a security vulnerability), a single set of keys can be stored in a key control system that is located in the building for which the keys are used. Using their pre-authorised PIN codes, visiting staff can quickly and easily access needed keys without having to go looking for them or interrupt another individual to dispense the needed key. All access activity is recorded and any changes to authorisations can be made quickly and easily by the system administrator.

## Conclusion

By following these best practices for key control and asset management systems, users may experience decreased operational and financial risk and achieve best value from the application. The guesswork is removed and the technology can be implemented with measurably higher levels of success.

**For more information, please visit:**

**[www.morsewatchmans.com](http://www.morsewatchmans.com) SST**

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# Clustered RAID Storage And Enterprise CMS Protect Capital Of Mongolia

## Introduction

City surveillance plays an important role in crime prevention and criminal prosecution. For a mission-critical project like this, it calls for not only high performance and reliable solutions, but the capability to handle the harsh outdoor environment and large data storage for 24/7 non-stop recording for 90 days. "With Surveon's end to end solutions, from 3 megapixel IP66 cameras, hardware RAID NVR, clustered storage, to enterprise VMS, we are now better equipped to monitor the entire district and protect the community against illegal activities," said the Sükhbaatar district police officer.

The Sükhbaatar District is situated in the capital Ulaanbaatar in Mongolia. With 18 sub-districts and a population of more than 112,000, this area is the center of the city with major government buildings, embassies, banks, and universities. "With all the residents and visitors, this district needed an advanced and professional video surveillance system to provide additional support for the police force," the officer pointed out.

## Challenges

Located in the coldest national capital in the world, the Sükhbaatar District features brief, warm summers and long, bitterly cold and dry winters, with extreme temperatures ranging from -49 degree Celsius to 38.6 degree Celsius in the year. The harsh weather conditions challenge outdoor cameras to function properly and record clear images day and night.

With all the political and financial activities taking place in the large territory, the police department required a surveillance system that would allow them to remotely monitor the entire area and quickly respond to events



in different sections of the district. An advanced TV-matrix wall functionality to see everything around this neighborhood at a glance was the key demand in the implementation.

A reliable storage system that supports 24/7 continuous megapixel recording for 90 days is also necessary in city surveillance projects. The Sükhbaatar police department wanted to install enterprise-grade data storage to ensure long data retention period with no video loss.



## Solutions

### **3 Megapixel 30 FPS HDR outdoor cameras for extreme weathers**

Surveon CAM3471 provides 2048 x 1536 resolution at 30fps, true High Dynamic Range (HDR), IP66-rated weatherproof housing, and wide temperature to combat the harsh conditions. Installed atop streetlight poles, Surveon CAM3471 cameras enable police to monitor the downtown areas, tourist destinations, main roads, busy intersections, and the city's most violent neighbourhoods.

With the smart image optimisers, Surveon cameras can analyze lighting changes and automatically adjust the image functions to ensure clarity can be obtained under different lightings. The Smart Auto HDR can be automatically activated or deactivated according to the lighting, refraining images from being too bright or too dark. The Smart Shutter can capture precise images of fast-moving objects by adjusting the shutter speed automatically to avoid captured images going blurry or dragging.

In addition, the Smart Auto Exposure automatically adjusts the exposure based on a targeted area to bring out the proper exposure for the overall image, and the Smart Auto Focus allows users to apply auto focus on a targeted area, showing the clear image of the region that really matters. Surveon cameras also offer ROI (Region of Interest). Users can create up to eight independent regions, each with different video quality and frame rate, saving up to 30 percent of the network bandwidth.

### **Enterprise video solutions for centralised management**

For a mission-critical project, an enterprise-grade video

management solution is the ultimate choice. Surveon's intuitive VMS provides enterprise-level features such as real-time analytics, live view, instant playback, multiple clients, video bookmarking, remote monitoring, and centralised domain management. The software adopts PIP, fisheye, back-forward and frame-by-frame in live view and playback modes, offering partners the powerful yet easy to use solutions for professional surveillance.

Based on the client-server architecture, the Surveon Control Centre (SCC) works on a simple yet compelling platform. With a single login from any PC/client at any remote location to the SCC central domain server, the SCC can take controls of monitoring, playback, configurations, and log management of all connected appliances, including cameras, NVRs, monitors, and I/O devices to ease the complications of configuration and maintenance.

The SCC supports the advanced TV-matrix wall that allows the police to know what is happening in the district in a glimpse inside the control room. In addition, the central alarm monitors not only events but also overall hardware and software system status from one single platform to control operations, ease maintenance and shorten response time.

### **Premium-level storage for data recording**

Supporting up to 64 channels of full High Definition (HD) video recording, the Surveon NVR 2100 with subsystem storage was chosen to provide large capacities up to 488 TB for longer video retention periods, overall stability and zero video loss.

The EonStor RAID storage is an advanced data storage system designed for server, PC and NVR. The controller-based system with a dedicated "RAID controller" provides



the highest performance and reliability with all data protected and backed up. Surveon's NVR2100 also comes with the SANwatch storage monitoring suite which helps the police easily manage and monitor the status of the storage, ensuring the high availability of recorded video.

## Results

### **End-to-end solutions for mission-critical projects**

Surveon provides proven, fully integrated solutions for large-scale projects. From megapixel cameras, NVRs to storage systems, the solutions are based on the same VMS framework, allowing partners to keep the investment on existing projects for future expansions.

### **Ready for harsh environment**

"Surveon's cameras are designed and manufactured in house with industrial-grade components to ensure the lowest failure rate for the 24/7 operations," said Casper Wu, product manager of Surveon. The IP66 standard, vandal proof design and in-house high quality control production process allow Surveon cameras to perform well in the extreme outdoor conditions. The advanced image functions, such as Smart Auto HDR and Smart Shutter, ensure quality images even in the light changing situations.

### **Secured data storage and easy video management**

Surveon's NVR2100 with RAID storage ensures non-stop recording with stability and reliability. Paired with Surveon's scalable enterprise VMS, the solution not only improves safety and security, but provides robust prevention, preparedness, detection, and quick response measures for the police department.

With the SCC remote monitoring and centralised management, operations become easier and surveillance costs can be reduced. The TV-matrix wall allows the police to notice incidents quickly and thus shorten the response time. The best of all is the SCC is scalable, making it possible to expand to unlimited numbers of cameras, NVRs, storage, and devices.

"We can view the footage in real-time to determine what resources are needed before dispatching the team. The result is faster and more effective crime prevention and security management. We are pleased to have deployed



Surveon's end to end professional solutions," said the Sühbaatar district police officer.

**For more information, please visit:**  
[www.surveon.com](http://www.surveon.com) SST



# Arecont Vision Megapixel Cameras Monitor Crowds At Hsing Tian Kong Temple In Taiwan

## Introduction

Hsing Tian Kong Temple in Taipei is devoted to Kuan Yu, the patron god of businessmen. The popular Taoist temple is relatively new in origin – it was constructed in 1967 and is located on a street corner near the centre of the country's capital city, occupying more than 7,000 square metres. Sculptures of dragons adorn the Hsing Tian Kong Temple's ornate design, which has become a popular attraction in the city.

## Challenge

The temple's huge number of visitors suggested the need to enhance an existing analog video surveillance system installed at the large facility. Specifically, visitors to the temple tended to leave their handbags under the table as they prayed, and the bags were often stolen. The previous analog system provided insufficient image detail to identify the thieves. Given that the temple is a preserved cultural site, installation of the system had to be simple and as non-invasive as possible to preserve the building's beautiful architectural design elements. Any enhancement of the existing video surveillance system also had to preserve the previous investment made in the

analog video surveillance system.

These parameters established two primary design objectives for the new system enhancement project: 1) increase the video coverage capabilities of the system while minimising alterations to the existing architecture/construction, and 2) complement the existing analog system to capitalize on previous investments in video surveillance.

## Megapixel solution

To update video surveillance, the Hsing Tian Kong Temple turned to Alpha Pricing, a leading network surveillance solutions provider in Taipei that serves the government sector, institutions and businesses nationwide.

An early adopter of IP-based video surveillance, Alpha Pricing developed a partnership with Milestone Systems in the year 2000 and became Milestone's primary distributor in the Greater China region. Today, Alpha Pricing is a leading IP surveillance solution provider and has forged partnerships with some of the industry's top companies, including Arecont Vision, manufacturer of a wide range of megapixel network video cameras. Along with a local



reseller, Alpha Pricing designed the video system for Hsing Tian Kong Temple and performed the installation.

Alpha Pricing created a centrally monitored system using Milestone's Xprotect Professional video management software. Other system components include a Longstor Storage Server, the EverFocus ECOR 264 (H.264-based) digital video recorder, and Edge-corE ES3528M and ES4308-PoE network switches. Power-over-Ethernet provides electricity to Arecont Vision's megapixel video cameras along the network without requiring a separate power connection, which simplified installation. The use of digital video encoders enabled the system to preserve the temple's previous investment in analog cameras, which are now tied into the networked system.

"Arecont Vision cameras are a great addition to boost the effectiveness of an IP-based system, and the cameras integrate easily with other system components while lowering overall system costs," said Steven Chen, Vice President of Alpha Pricing. "The enhanced details of megapixel images are a big improvement over analog images, and details can be critical to some applications."

Arecont Vision 5 megapixel cameras with 4.5 - 10 mm vari-focal lenses and 2 megapixel cameras with 4.5 - 10 mm and 8 - 16 mm vari-focal lenses provide clear, high-quality imaging for the temple. The 5 megapixel AV5105DN is a day and night camera that provides 2, 592 x 1, 944 pixel images at 9 frames-per-second (fps). The camera uses H.264 MPEG compression to minimise system bandwidth and storage needs, and can also be used at lower resolutions and various frame rates.

The AV5105DN provides full-motion progressive-scan 1280 x 1024 video at 30 fps, 1600x1200-pixel video at 24 fps or 2048 x 1536 at 15 fps, and incorporates Arecont Vision's MegaVideo image processing at 80 billion operations per second. Features include forensic

zooming, motion detection and image cropping.

Also used at the temple is the day and night version of Arecont Vision Model AV2105, a 2-megapixel H.264 IP camera that provides 24 frames-per-second of 1600x1200-pixel video. The 2-megapixel cameras also incorporate MegaVideo image processing and have features similar to the 5-megapixel model, including H.264 compression to minimise bandwidth and storage needs.

### Megapixel benefit

The video quality and overall cost-efficiency of the Arecont Vision cameras were the deciding factors for this project. Additionally, the integrator noted the cameras' ease of installation, which was a critical factor, given the nature of the installation and the customer's design objectives. The IP-based network video solution lets Hsing Tian Kong Temple enjoy the advantages of digital surveillance without giving up the investment in its existing analog video surveillance system. Now, superior image quality is readily available when necessary, and the monthly cost for relevant equipment maintenance is 15 percent lower. The centralised video system has significantly streamlined management.





The picture quality and digital zoom capabilities of Arecont Vision cameras far exceed analog technology and allow the Hsing Tian Kong Temple to capture and retrieve usable video over large coverage areas. More detailed video now provides clear evidence of the handbag thefts and also enables identification of the thieves.

An attribute of the Arecont Vision camera line is the ability to install fewer cameras while capturing video from larger areas. Combined with recent cost reductions in NVR storage and network switches, the use of fewer cameras allows the temple to transition to high-quality video at a minimum increase in cost.

“Megapixel imaging represents a significant upgrade in system functionality compared to standard-resolution cameras,” said Becky Zhou, Asia Pacific Sales Director, Arecont Vision. “The Hsing Tian Kong Temple application clearly demonstrates the benefits of higher-resolution

megapixel imaging to boost system effectiveness even at sites with existing analog systems.”

In addition to lower bandwidth and storage requirements, use of megapixel cameras dramatically decreases costs related to other elements of a system, such as fewer software licenses, fewer lenses and a decrease in man-hours needed to bring it all together.

Arecont Vision collaborates with more than 100 video recording suppliers such as Milestone Systems to ensure smooth integration of Arecont Vision megapixel cameras. Arecont Vision also works with technology partners for tighter integration with complementary products, including servers, storage and other systems, which makes the integrator’s job even easier.

**For more information, please visit:**  
[www.arecontvision.com](http://www.arecontvision.com) **SST**



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# Luxury Resort Community Goes High Tech With Morse Watchmans Key Management System

## Introduction

With approximately 300 sunny days per year and an annual average temperature of 72 degrees, the greater Phoenix area attracts visitors from all over the country and the globe. Along with the City of Phoenix, the surrounding communities of Scottsdale, Chandler and Mesa offer an attractive winter alternative to the snow and cold of the northern climates, while the resort communities appeal to a wide range of winter residents.

One of the premier living communities in the area is Gainey Ranch, situated in the heart of Scottsdale. More than 1000 homes are located in the walled and gated resort community, with manned entrance gates leading to the residential neighborhood. Within the community, security personnel are on duty 24/7 and each residence contains an alarm system for protection against intrusion and to alert fire, police or medical services.

## Key control moves from manual to automated

Gainey Ranch is continually renovating its facilities and upgrading technology to maintain their reputation as a luxury resort community, and to ensure the ongoing safety

and security of its residents. Most recently an automated key control and management system from Morse Watchmans was installed to provide an additional layer of security for the residents as well as an added level of convenience. Now, residents no longer need to leave a spare key with site operations to be stored in a folder and possibly lost. Instead, the homeowner's key is secured to a locking device and held in the KeyWatcher tamper-proof, locked cabinet. The system's automatic tracking of key access activity provides important accountability.

Keys in the system may be used if management or emergency services need to enter a resident's premises in the event of fire, medical emergencies or other suspicious activity. Residents also often hire the services of outside contractors and require that, in their absence, a key be provided to a contractor for on-site works.

The KeyWatcher system from Morse Watchmans meets all of the community's security and convenience needs and more, according to Jim Funk, Executive Director at Gainey Ranch.

"The previous system of manually storing keys was a huge liability for Gainey Ranch because of the potential for misplaced or lost keys," says Funk. "We had no reliable



way of tracking the keys or even securing them. The KeyWatcher system removes that liability by ensuring that all keys are securely stored in the cabinet and are easily accounted for.”

### High tech solution

Access to the key cabinet is controlled by Funk’s security department. Security staff and other authorized users can only remove keys through biometric fingerprint recognition. If the criteria entered matches the information stored in the system database, the key cabinet will unlock and the necessary key can be removed or returned. The time, date and identity of the individual accessing the cabinet are all logged, as well as any notes added by the user, and the data is available to Funk with a few key strokes using key control data management software.

In addition to the improved security and accountability, Funk explains that the key management system provides significant benefits to the homeowners as well as to Gainey Ranch operations. As an example, if a resident is not going to be at home when an air conditioning service is scheduled, they can easily make reservations to have the key released to the contractor by simply going to the Gainey Ranch web portal and simply entering the information (who, when duration, etc.) in their account. When the contractor arrives at the gate, security verifies the request from the information submitted by the homeowner. If the request matches the reservation, the guard enters the individual’s name and the phone number into the notes field for that key and then releases the key to the contractor.


The system is programmed to notify the homeowner by email or text that the key has been released. If it is not returned as scheduled, security follows up with the contractor, and both the homeowner and Funk’s department are advised of the situation.

“The feedback from homeowners on the key management system has been extremely positive,” adds Funk. “They’re all quite tech savvy and they like the convenience of making arrangements through the website for key reservations and how it triggers notifications and follow up control.”

He goes on to say that because of the improvement in securing the keys with the KeyWatcher system, many more of the residents are willing to participate in the voluntary program. Several of the commercial properties in Gainey Ranch have also indicated an interest in storing emergency keys in the KeyWatcher cabinet.



“Whatever we decide, it’s good to know we can configure the system to our exact needs or expand it as more participants sign up,” concludes Funk.

**For more information, please visit:**  
[www.morsewatchmans.com](http://www.morsewatchmans.com) 



# Santa Cruz Beach Boardwalk Installing Boon Edam Entrances

## Introduction

The Santa Cruz Beach Boardwalk is the only major seaside amusement park remaining on the US West Coast. The Boardwalk is located along a scenic, mile-long public beach bordering the Monterey Bay National Marine Sanctuary. The entertainment complex features 36 rides and attractions, 26 midway games, 2 large video game arcade, an 18-hole indoor mini-golf course, a laser tag arena, 31 restaurant and food outlets and much more.

## Challenge

There was a need to implement a new turnstile system that would provide confirmation of customer payment, as well as serve as a better means of controlling access to certain areas.

## Solution

Prior to deciding on Boon Edam for an upgrade, the Boardwalk has installed standard turnstiles at some of their rides to automate the count of customers taking the rides. As the facility improved its technology to a cashless card system, the opportunity arose to improve ride entrance technology as well.





“We needed to have confirmation that each of our customers has paid in order to enjoy a ride or attraction,” explained Monty Matteson, Senior Supervisor of Revenue Systems Technology. “We now use stored value cards for our arcades, the midway, and all of our rides.”

Matteson continued, “For some of the rides, we needed to better control access, and we looked to Boon Edam since they provide a product with more intelligent, effective control.” Thus far, the Santa Cruz Beach Boardwalk has purchased 21 Trilock 60 turnstiles, some are installed on rides, some are held in reserve for future use, and one is used as a test model.

The next phase of installation will be on some of the Boardwalk’s attractions, like Laser Tag. “When paying for

an attraction such as Laser Tag, each customer gets a receipt,” said Matteson. “But now we need one employee to take the money and a second employee to confirm the receipt. With the Boon Edam turnstile, we need only one employee, so we’re able to cut costs and reduce shrinkage from revenue loss.” Matteson plans to install Boon Edam turnstiles at four attractions—Laser Tag, Lazer Maze, Mini Golf, and Fright Walk.

“We’re always looking for new, future deployments, as we switch out rides. Our overall experience has been that this is a great product,” said Matteson.

“It’s well built and because of a number of unique installations we’ve had to do I know first-hand the quality of construction and how well Boon Edam’s customer service has performed. We’re achieving the desired level of throughput and we’ve had zero operational issues. We have one unit that is out in the salt air 24/7 and after a year in that harsh environment you know whether something is built well. I’m impressed.”

## Benefits

Following the upgrade with Boon Edam, the benefits were proven with automated and accurate customer counting, improved crowd management and exceptional customer service. Additionally, they are able to meet high throughput needs and reallocation of staff allowed for cost cuts and reduction in shrinkage.

For more information, please visit:  
[www.boonedam.us](http://www.boonedam.us) 





## Vivotek Provides Security For The Turkish Soil And Water Conservation Bureau, Day And Night

### Protecting Turkey's Most Precious Resources

The Turkish playwright and novelist, Mehmet Murat ildan once said "Sand is for fun; soil is for life." Well, Mehmet's respect for the natural resources of Turkey is shared by people of the Turkish Soil and Water Conservation Bureau, who work tirelessly to protect and preserve these vital natural treasures for future generations of Turkish people. The Bureau's

work is considered fundamental to the health and security of the great country of Turkey, as well as important for its ongoing development as a nation.

### The Challenge

In 2015 the Turkish Soil and Water Conservation Bureau realised the need to provide surveillance and thus security to its office site. To fulfill this important task, the bureau decided to establish a

purpose-built central monitoring office from which the entire area could be monitored and secured. The central monitoring office would face a serious challenge however as the office site broad open spaces not only needed to be covered in wide angle views, but individual areas of interest would also need to be studied closely and in fine detail. To make the challenge even greater, the office site outdoor areas were subjected to high contrast lighting conditions during



the day and very low light at night. With these requirements in hand, the Bureau reached out to system integrators Fibercom and distributors ONCU to help them find the perfect surveillance system for their office site.

### The solution

Fibercom and ONCU had a simple answer to this complex challenge. Having years of experience dealing with diverse surveillance demands, VIVOTEK has developed an impressive toolkit for any challenge. To provide both wide coverage and close detail, VIVOTEK developed the Panoramic PTZ solution, combining the wide range of fisheye network camera and the high-speed zoom and fine detail of a speed dome network camera. Panoramic PTZ combines these two unique cameras into one powerful, all seeing surveillance system.

At the monitoring station, this synergy was realised through the combination of the VIVOTEK FE8174V 5MP fisheye network camera and the VIVOTEK speed

dome network camera SD 8364E. Working in tandem, the two cameras allow users to simultaneously monitor an area overview from a fisheye model while providing the capability for a detailed regional view from a speed dome. The VIVOTEK megapixel fisheye camera provides 360 degrees surround view without blind spots, while the VIVOTEK speed dome provides fast, precise pan/tilt/zoom movement through its robust design and captures details with precise quality from extreme distances. With this perfect pairing of hi-tech cameras, every inch of the office site could be tightly monitored and recorded.

### Securing Turkey's Water Conservation is a 24/7 task

Not only did the office site's grounds need to be monitored both broadly and in fine detail, they also needed to be protected no matter what the lighting conditions, day or night. To provide superb image quality in any light, Fibercom and ONCU reached for VIVOTEK's IP8365H Bullet Network Camera.

The IP8365H features Wide Dynamic Range (WDR) technology, which improves a camera's image quality under high-contrast lighting conditions where both dimly and brightly lit areas are present in the field of view. It enables the camera to capture details clearly in both the poorly and strongly illuminated areas of the video. Thus WDR allowed the monitoring office to view clear and vivid imagery even in the harshest glaring light.

When the sun goes down on the plant, the IP8365H keeps working. A professional day/night camera, the IP8365H is armed with 30 metre IR and Smart IR technology which prevents overexposure by adjusting the IR lighting intensity instantaneously based on the changes of light in the ambient environment. To add to this, the camera is also equipped with 3D Noise Reduction Technology, which enables the IP8365H to capture clear, polished video under low-light conditions and reduce bandwidth from sensor noise.

Finally, tying the whole system together, VAST - VIVOTEK's professional video / central management software - manages all 100 VIVOTEK IP surveillance cameras installed at the office site. VAST's intuitive operating system allows the team at the monitoring station to seamlessly manage both the Panoramic PTZ system and the IP8365H and perform remote management of all of the cameras. Of course, to the security staff monitoring the office site for the people of Turkey, all of these details simply mean crystal clear images, all day, all night.

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# MOUAWAD



## A Gem Of A Security Asset For Kuala Lumpur's Exclusive Jeweller

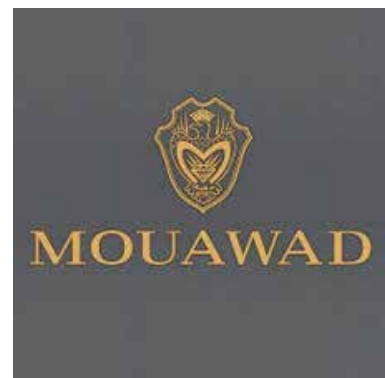
### Introduction

Nestled in Starhill Gallery, Kuala Lumpur's finest luxury retail mall in the heart of the city's golden triangle, Mouawad jewellery boutique epitomises exclusivity and fashion. Established in 1890 and one of the world's leading jewellers, the Mouawad group spans luxury outlets across the world including Jordan, Kuwait, Lebanon, Malaysia, Oman, Qatar, Saudi Arabia, Singapore, Switzerland, Thailand, UAE and USA.

For over a century, Mouawad has been creating spectacular jewellery destined for its exclusive clientele made of royalty, the wealthy elite

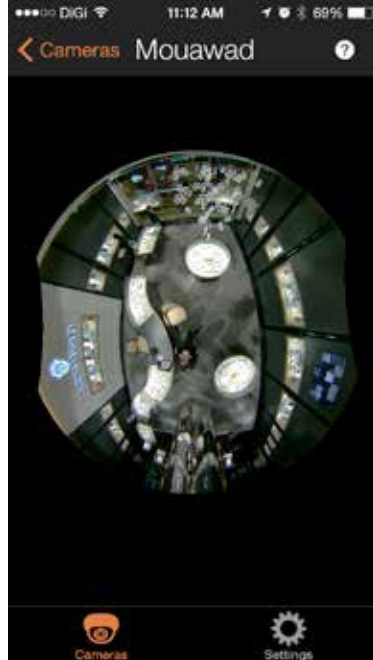
and celebrities. Adorning the likes of Jennifer Lopez, Eva Longoria, Naomi Campbell, Paris Hilton, Uma Thurman and many more, Mouawad masterpieces hold several Guinness world records like the most expensive single-pear shaped diamond (1990), the most valuable necklace (2013), the most valuable handbag (2010) and the most luxurious lingerie (2003).

Mouawad is a world-renowned luxury jeweller catering to royalty and world celebrities. The local distributor Bakhache Luxuries Sdn Bhd is a fast growing group, which also manages established brands like Christoffe, Truefitt & Hill, Maison



Francis Kurkdjian and Castania.

Antoine Bakhache, Managing Director of Bakhache Luxuries, helms the Malaysian operations



of Mouawad. A nephew of the third-generation family business leader Robert Mouawad, Antoine is a certified gemologist from the prestigious Gemological Institute in America.

Besides Mouawad, Bakhache also represents and manages renowned French silverware manufacturer Christofle and the world's oldest barbershop Truefitt & Hill.

**Challenge**

The owner, Bakhache wanted a surveillance solution covering the entire boutique floor that is user friendly to operate and also be accessible from his smart phone.

**Complete situational awareness**

Managing well over a dozen outlets around Kuala Lumpur is no easy job. Always on the move, Bakhache installed eight cameras in his flagship Mouawad boutique in Starhill. Yet, he was not fully satisfied with the

resolution, the fragmented viewing and limited remote accessibility offered. "Through the previous CCTV system, I was having difficulty being able to get a bird's eye view of my store, especially when away."

When introduced to the product by Stratel (Malaysia) Sdn Bhd, the

authorised distributor for Oncam in the region, Bakhache was amazed. "I was literally taken in by the technology and ease of use offered on the mobile app and immediately knew it was the right technology for my business."

Two weeks later, Bakhache invested in Oncam's 360 degrees technology and the system was installed by professional integrator Viva Network Sdn Bhd. "With Oncam, I can quickly check any part of my store effortlessly, zoom in and rotate the view as much as I want – live and recorded. I never miss a thing," Bakhache justified.

Using a QNAP NVR, the surveillance solution meets all of Bakhache's requirements. Hardly noticeable, the concealed device blends nicely with the refined surrounding and despite the presence of a huge column in the middle of the boutique, there is no blind spot in the field of view.

Planning ahead, Bakhache is already thinking of placing Oncam's products for his upcoming businesses.

**For more information, please visit: [www.stratel.com.my](http://www.stratel.com.my) SST**





# Dahua Delivers IP Solution For SANASA Development Bank

## Introduction

Founded in 1997, SANASA Development Bank (SDB) is a unique financial institution, committed to raising the standard of living for low-income Sri Lankan families with its range of microfinance activities. SDB is a national cooperative bank, with over 82 branches covering all of Sri Lanka. A large proportion of the bank's clientele consists of farmers, fishermen, labourers and small vendors and business owners, making it truly a bank dedicated to the people it serves, focusing on their improvement and development. Due to the fact that its business has been growing consistently, SDB decided it needed to upgrade its security system.

## Solution

After examining SDB's unique requirements and concerns, Dahua provided the bank with a cost-effective, customised, high-definition (HD) IP security solution, designed for stability and reliability. The new system includes surveillance cameras and DVRs, as well as intelligent security software. A number of different camera models were chosen to cover all areas of the bank, including offices, counters and ATM kiosks.

The majority of cameras used in the SDB system are Dahua's small IR dome network cameras. These feature a 1/4 - inch 1-Megapixel

CMOS sensor which outputs clear, crisp 720p images at 25/30 frames per second, and supports multiple network monitoring options, including web viewer, video management software (including Dahua's DSS or PSS) and DMSS remote viewing. The domes also feature infrared sensors with a range of up to 30 metres – excellent for monitoring the bank during the dark hours of night. IP66 - rated weather proofing and dust proofing ensures the cameras can withstand even the harshest weather conditions, and IK10-rated vandal proofing effectively prevents violent attacks on the domes. All of these factors meant that Dahua's small IR dome network camera made an ideal choice for SDB's interior and exterior monitoring.

To record the video images provided by the small IR network domes, Dahua provided its 5000 series NVRs. These 8, 16 or 32 channel network video recorders can receive up to 160Mbps of footage, and support HD resolution of up to 5MP for camera input, record, live view and playback. Crucially, Dahua's 5000 series NVR offers Power over Ethernet (PoE), which allows the cameras to be powered via data cables rather than necessitating the installation of additional power cables.

For its video management, SDB uses Dahua's Smart Pro Surveillance System software, which supports



video wall control and is easily connected to smart IP cameras. The Smart PSS provides a host of functions, including device management, real-time viewing, video recording, remote search and playback, and much more.

SDB is the first bank in Sri Lanka to adopt a fully IP solution for its entire security system, and Dahua's IP solution is helping to improve both security levels and operational efficiency for the bank. As the world-leader in advanced video surveillance solutions, Dahua offers a complete range of high-level banking security systems and equipment, for both large financial institutions like SDB and for smaller credit unions.

For more information, please visit: [www.dahuasecurity.com](http://www.dahuasecurity.com) **SST**

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# ProTrans Improves Safety, Security And Productivity With Integrated Video And Access Control Solution

## Introduction

“Due to the fact that we have more than 250, 000 square feet and handle so many valuable pieces and parts, we wanted both high definition cameras and synchronisation between the video and the access control. The systems integrator I worked with introduced us to Milestone and ISONAS, and together we deployed a solution with two technologies integrated that offers us much better information, which we use to operate more efficiently,” said Justin Batton, Network Infrastructure Manager, ProTrans.

## Challenge

ProTrans provides transportation and third-party logistics services that meet the shipping needs for manufacturers

throughout the U.S., Mexico and Canada. Its recently opened facility in Laredo, Texas, is used to store parts, widgets, pieces, returned products and other accessories that customers rely on ProTrans to package and ship to manufacturing facilities on both sides of the U.S.-Mexico border. The company wanted a single solution to provide high-resolution video images as well as the ability to monitor, verify and restrict access to the facility in order to better manage employee time and attendance while also reducing theft and misplacement of inventory.

## Solution

Using its Laredo facility as a prototype for several buildings it plans to equip with similar technology in the future, ProTrans worked with Ascending

Technologies IT and ABP Technology to integrate the ISONAS network-based PowerNet reader controller with Milestone XProtect video management software (VMS). The video data comes from MOBOTIX cameras, and is configured and archived via the Milestone VMS in a storage server from App-Techs and two servers to grant or deny access and monitor and record activity in and out of 15 doors.

## Advantages

In just a few short months, ProTrans has realised considerable benefits from integrating the Milestone open platform VMS with “Pure IP” access control technology from ISONAS, the primary one being that within a single interface ProTrans now has synchronised data from the



access control technology with high-resolution video images. This has enabled the company to dramatically reduce the amount of time required to locate missing items. The solution also provides ProTrans with an easily accessible record of when employees as well as shipments arrive and depart the facility and has been praised for the ease with which it can be learned and used.

### A clear view

The biggest benefit of the solution, according to Batton, is that he now has the ability to synchronise who is managing the facility with very clear, high-definition images.

"I can obviously see a card swipe, but it used to be hard to see if someone came in behind them or if someone left the door open," he says. "But because the two systems are synchronised, I can go to any point within the access system, see who came in and view it with the synchronised video at any given time. The door system tells me who it was, but I can also use the video from the same zone to verify that the person who used his access card was

in fact the only one to come through the door."

### Better inventory management

In addition to providing a way to monitor and control people's access to the facility, the solution is a powerful inventory management tool.

On its own, the access control technology enforces ProTrans' rules governing who can enter which parts of the facility. Working together, however, the synchronised video solution goes a lot further and begins delivering benefits the moment a truck arrives. Having high-resolution video showing the inventory entering the building with clear images of those who brought it in, synchronised with data from the access control technology, automatically creates a record that can be used if inventory is lost or stolen.

The availability of high-resolution video along with a stringent access control system also helps ProTrans reduce theft - not so much of freight, Batton says, but of company property such as laptops and wireless scanners, which he says, were often popular items to steal when doors were left open.

"Before we deployed our synchronised VMS and access control solution, it was difficult to stay on top of who was going in and out of the building," Batton says. "That meant we had to try to resolve things like damaged freight, injuries, damage to equipment and theft (which is a major issue in the border region) with fragmented, usually incomplete information. But today we're able to resolve incidents much more quickly and accurately thanks to having our access control synchronised with high-resolution video."

### Tracking employees' time and attendance

Finally, by integrating the access control and VMS technologies that generate high-resolution video images, ProTrans has an indisputable record of who is in the facility and at what time.

"Thanks to this solution we are able to better track employee time: we not only know when the employee punches in but we can also visually verify that it is actually that employee punching in," Batton says. "That means it's no longer possible to have someone scan in for you, or enter the facility using someone else's credentials."

### Ready for expansion

Batton says the deployment of the Milestone and ISONAS solution at the Laredo facility is only the beginning for ProTrans. While there is no official timeline, Batton says the solution will definitely be expanded to other locations.

"In just a few short months since installing this solution, we've seen a tremendous amount of benefits," he says. "We currently have 13 to 16 facilities throughout the United States that we plan to integrate with the solution so we can manage all access control and video surveillance from one centralized location and realize the benefits we've experienced here in Laredo on a much broader scale."

**For more information, please visit: [www.milestonesys.com](http://www.milestonesys.com) **SST****



# No More Flight Of Fancy

Article courtesy of SITA

## Opportunity knocks

What if your passengers could stream videos or hold conference calls during the flight? Or your cabin crew could validate credit card transaction in real-time, reducing the level of fraud? What if maintenance staff at your outstations already knew which parts needed repairing before the aircraft landed or pilots could receive real-time weather reports from aircraft flying ahead of them?

Some of this can be done with low bandwidth systems in place today, but what if passengers, pilots and cabin crew could all be doing their thing simultaneously? It would provide passengers with a richer infotainment and interactive experience, boost aircraft utilisation, enhance safety and increase operational efficiency.

The vision of truly connected aircraft has been talked about for a long time, but it is only over the next few years that the pieces of the puzzle will be sufficiently matured to make the vision a realistic proposition.



### **Next generation aircraft**

Today, there are only around 300 new generation aircraft, equipped with advanced sensor technology and connectivity capabilities, in service. But over the next decade this will increase rapidly to over 10,000 aircraft, including the Airbus A350 and Boeing B787 Dreamliner. By 2022, approximately 35 per cent of the global fleet will be flying data centres.

Each aircraft has the potential to generate a huge amount of data for every flight with estimates putting the figure at up to several terabytes on a single transatlantic trip. The ability to process this data in real-time, both in the aircraft and on the ground is going to open up a wide array of new applications.

### **Consumer trends**

Another defining trend is the increasing expectation of passengers to have access to the same mobile experience in the air that they get on the ground. In many cases, that means unlimited downloading and a growing expectation of free Wi-Fi, similar to what they receive in coffee shops, restaurants and at many airports.

The gradual loosening of regulatory restrictions on the use of personal electronic devices (PEDs) during take-off and landing is raising passenger expectations further.

It is putting airlines under tremendous pressure to make high-speed, in-flight connectivity a standard feature of the flying experience.



### **Broadband satellite connectivity**

Currently, most ground communication with aircraft takes place with satellites using the radio frequency L-band. It is both expensive and has low bandwidth making it unsuitable for large numbers of passengers to surf the web or for communicating the huge data sets produced by the latest generation of aircrafts.

However, a number of new generation satellite technologies are due to come on-stream in the next few years that will transform the availability and cost of in-flight communications. It is eagerly anticipated, with 73 percent of airlines expecting to have on-board connectivity by the end of 2017, according to SITA's latest Airline IT Trends Survey.

### **Connectivity brings 'Nose-To-Tail' benefits**

When you take trends and start connecting them together, there are some huge opportunities for airlines from having a richer information exchange with passengers and crew through to automating routine processes in and around the aircraft.

### **In the cabin**

Almost every person travels with a mobile device and for the vast majority it is a smartphone, tablet or laptop loaded with apps and entertainment. SITA's 2014 Passenger IT Survey puts the figure at 97 percent with 18 percent passengers carrying all three.

It is a leading pent-up demand from passengers for in-flight connectivity, putting pressure on airlines to deliver faster and cheaper connectivity solutions.

Connected aircraft can significantly improve passenger's in-flight experience by allowing digital travellers to use their own devices to access entertainment of their choice, such as films and games, and stay in continual contact with life on the ground.

Continual in-flight connectivity will also open up more opportunities for cabin crew to interact with passengers, personalising the service. By 2017, 81 percent of airlines plan to deploy or trial wireless tablets for their cabin staff, according to the 2014 Airline IT Trends Survey.

With the tablets connected to back-office systems there will be three benefits for airlines.

First, cabin crew will be able to provide passengers with



up-to-date information concerning their travel, such as baggage status or connecting flight status, and even re-book passengers if necessary.

A second benefit is the ability to digitalise paper processes, such as form filling, in areas like onboard inventory or fault reporting. This provides actionable information to ground staff preparing for the aircraft arrival, speeding up turnaround times.

Wireless tablets will also give cabin crew the opportunity to offer new services to passenger that can generate ancillary revenues. This could include providing access to premium IFE content or even making onward travel reservations. With credit card authorisations possible in real-time rather than post flight, the incidence of fraudulent transactions should also decrease.

### **In the cockpit**

Moves to digitalise the cockpit have been going on for a number of years since Electronic Flight Bags (EFBs) first started replacing a caseload of paper flight manuals and other documentation at the turn of the century.

Today, pilots can access pre-loaded flight documentation on a lightweight tablet costing just a few hundred dollars.



With the latest generation of aircraft, these simple Class I EFB solutions will become far more sophisticated by becoming an integrated, always connected node on the airline's IT system.

This will help pilots make smart decisions by giving them real-time access to critical data, both generated by the aircraft while flying and from ground-based systems. It will improve both operational efficiency and save fuel from better route planning. In addition, maintenance staff will be able to access the data from the pilot's logbook while the aircraft is in flight, to update planning schedules, leading to faster turnarounds.

### **Maintenance and aircraft well being**

New generation aircraft are fitted with large numbers of sensors and built-in health monitoring systems. For instance, the Airbus A350 measures 440,000 parameters. The onboard IT system can relay information on the condition and performance of aircraft parts to ground-based maintenance staff, as well as monitor the software elements that keep the plane operational.

Receiving advance notification of a defect on an incoming aircraft can allow the ground crew to have the replacement ready by the time it lands. This ability to perform automatic fault detection and diagnostics can drive efficiencies in maintenance schedules, keeping aircraft in the air longer where they generate revenue.

Ultimately airlines will be able to use the data from the aircraft to build predictive models on the lifecycle of parts and take action to replace them before a problem occurs. This type of predictive maintenance will cut aircraft downtime by reducing unnecessary preventative maintenance and increasing the efficiency of MRO operations.

### **E-Aircraft requires a new mindset**

While technology advances are laying the foundations to exploit new generation aircraft, airlines will struggle to do so without fundamental changes to the way they manage their fleet.

### **A holistic approach**

Airlines need to adapt the way they take decisions on equipping each aircraft across their fleet. Current practices often mean passenger and cockpit operations are owned by different stakeholders within the airline. The result is IT

**“The vision of truly connected aircraft has been talked about for a long time, but it is only over the next few years that the pieces of the puzzle will be sufficiently matured to make the vision a realistic proposition.”**

projects without regard to the wider economies of scale and re-usability of IT components. This approach encourages inefficiency through a low degree commonality in the design and integration of technologies.

### **Access to reliable IT infrastructure**

If airlines are to extract the full benefit of their investment in connected aircraft, they will need to integrate the aircraft into the airline's IT environment, in particular back-office systems. To do this the airline will need either to deploy or have access to reliable and secure IT infrastructure, not just at hub airports, but also at outstations.

Today, most data exchanges with the aircraft, whether enroute or on the ground, involve using a variety of different communication infrastructure. There are multiple groundbased “last-mile” connectivity options, including hard-wired IP, as well as wireless based options such as Gatelink, Wi-Fi and cellular. Given the country-to-country differences of costs, bandwidth, coverage and political/legal factors, this is going to require a great deal of careful management.

### **Handling a massive increase in data**

Dealing with the sheer volume of data from aircraft and making sense of it is going to present a challenge and one that will multiply as more new generation aircraft enter service. Today, airlines handle the issue by offloading only a subset of critical performance data for OEMs from onboard systems, but this limits the potential benefits.

For most airlines a scalable cloud-based solution will provide the most efficient approach for processing and storing the data, but it will also need new tools to filter and perform predictive analytics on that data, as well as overcoming the challenge of getting the right data to the right place and the right people at the right time.



### **Increased complexity of Loadable Software Aircraft Parts (LSAPs)**

The advanced capabilities of new generation aircraft necessitate the need for more software applications to manage them. In turns this requires significantly higher and more complex software changes to IT systems on the aircraft. The Boeing 787, for example, has more than 280 LSAPs with more than 1400 instances, some of which require updating on a monthly basis. While the benefit of these e-aircraft is that these software updates can be distributed remotely through secure wireless connectivity, it will require an increased IT capability, including network connections to third-party software providers and integration of new applications, than is needed with legacy aircraft.

In particular, different airframers have unique data models and cloud storage services for hosting their aircraft data and applications making it difficult for an airline with mixed fleet to get the full picture across their fleet without complex integration.

### **A common approach will cut risks and cost**

Managing the different technologies and data exchange with aircraft across a route network and a mixed fleet is going to present airlines with significant challenges in executing their aircraft digitalisation strategy. In addition there are likely to be multiple stakeholders to engage and collaborate with.

While there is not a single technology solution to solve the 'nose-to-tail' needs of connected aircraft at airports globally, there is a degree of commonality that makes it possible to design a set of connectivity and e-service capabilities that span the cockpit, cabin and aircraft

maintenance, which can be delivered through a single IT platform.

Such an approach could address mixed fleets in a neutral and scalable way using industry standards, best practices and the well-established advantages of shared infrastructure.

### **Wide-ranging benefits**

A common IT platform approach provides a strong value proposition not only for airlines, but also for the air framers and OEMs, by delivering a number of benefits:

- Managing the different communications technologies required for data exchange with the aircraft, both on the ground and en-route, leveraging shared infrastructure, including VHF/VDL, satellite, wireless and Gatelink footprint, as well as 3G/4G and WAN connectivity.
- Providing a set of integrated application services, covering the cockpit, cabin and aircraft well being, allowing airlines to securely and cost effectively manage content between aircraft systems or crew devices, and ground applications.
- The platform could standardise, process, filter and deliver the data flows to and from the aircraft based on the different needs of each stakeholder, whether an airline, air framer, OEM, air traffic management or even supplier of charts and weather data for EFBs.
- Offer a clear way forward for airlines starting their aircraft digitalization journey in terms of cost effectiveness, flexibility, security, and scalability. An approach that can be ramped-up both globally and across a multi-fleet environment.
- A neutral industry platform would allow air framers and OEMs to serve the needs of airlines with new value added services.



- Airlines and OEMs would no longer need to embark on complex individual IT projects, dealing with regulatory constraints, multiple aircraft types and different airports.

### **Cyber security will be critical**

Connected aircraft will put the spotlight on the need for increased cyber security in aviation. Data integrity is essential, but there is concern that some next generation aircraft may have network vulnerabilities. In 2013, Boeing implemented additional security measures on its 777 series of aircraft to prevent onboard hacking of critical computer systems.



Each airline, aircraft manufacturers and OEM will need to ensure they eliminate the risk of uploading viruses or malware when they transfer data from back-end systems to the aircraft. There are already moves to mitigate the threat, with efforts to segregate the passenger, crew and maintenance networks, as well as deploys other isolation techniques already common on military aircraft.

A major advantage of a common approach will be to ensure the highest security standards can be implemented across the global fleet and make oversight of that security far easier than dealing with hundreds of different airlines.

### The bottom line

The introduction of new generation aircraft and retrofitting of older aircraft over the next decade provides a compelling value proposition for fully integrating them into the airline's ground IT infrastructure. It will bring a step change in process efficiencies from routing to maintenance to turnaround and open the door for new value-added services that will become as critical for generating ancillary revenues as the airline website. However, airlines are only just beginning to wake up to the full implications and potential of continuous data exchange with the aircraft in flight and on the ground. It requires significant cost considerations

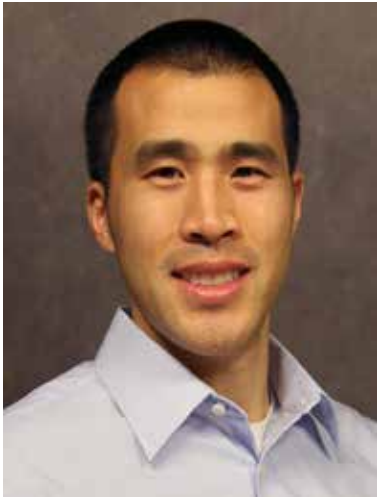
and changes to the processes and IT environment around the aircraft. Not least will be ensuring secure, reliable and affordable IP connectivity in-flight and at each touch point on a global route network.

De-risking these challenges can best be performed at the industry level through best practices and shared infrastructure. Those that successfully overcome the obstacles and execute their aircraft digitalisation strategy will create competitive advantage by maximising aircraft availability and improving the passenger experience.

**For more information, please visit:**  
[www.sita.aero](http://www.sita.aero) **SST**



# AN INTERVIEW WITH



## ALFRED LEE, VICE PRESIDENT OF PRODUCT MANAGEMENT, PALO ALTO NETWORKS

### What are your current cyber security solutions for enterprises?

Palo Alto Networks is the leader in enterprise security. We offer a complete Enterprise Security Platform that comprises a Next-Generation Firewall, Threat Intelligence Cloud, and Advanced Endpoint Protection. The integrated platform streamlines operations for our customers and offers protection from the mobile to the core of a cloud-enabled data centre. We recently introduced AutoFocus cyber threat intelligence service, giving security practitioners instant access to data intelligence from our file analysis artefacts. We also announced an expansion of our strategic partnership with VMware this year. With AirWatch by VMware Enterprise Mobility Management platform, our customers have a unique combination of mobile device management with advanced threat prevention for secure enterprise Bring-Your-Own-Device support.

### What are your targeted demographics for these solutions?

Our customers are governments, enterprises and service providers across the globe. Healthcare, retail, education, financial services and telecoms are key industries for us in Asia, however we have customers across most verticals.

### What is the one most common thing that enterprises do not know about cyber threats?

Most people are not aware that prevention of cyberattacks is possible. There is still an overreliance on older legacy systems that aim to remediate, rather than detect at the very first possible point of infiltration. The cyber threat landscape has changed dramatically over the past years and it has become clear that legacy technologies, which were developed some 15-20 years ago, are simply no longer able to protect against the increasingly sophisticated level of attacks we are seeing today. Enterprises need to realise that a "detect and remediate" security posture is no longer applicable, and in order to protect data, it's crucial to migrate to a "detect and prevent" architecture that will allow an analytical and automated response to both known and unknown threats. This means no

longer having security products with a disjointed security architecture, as this creates loopholes that are easily exploited by attackers.

### As cyber threats continue to evolve, what role does newer technology play? Is it a help or a hindrance?

The emergence of new technologies, particularly in light of more devices coming online such as the Internet of Things, poses new challenges for cybersecurity working to open up new threat vectors via previously inanimate objects. Secondly, technology is also being developed so quickly that security often comes as an afterthought. In order to stay ahead of the curve and remain relevant, it becomes increasingly important to innovate and offer solutions which meet the security needs of enterprises. This enables them to embrace new technologies which benefit their business, without fear of being vulnerable to attack.

### What do you think are the deeply held fundamental beliefs that will drive enterprises to use your products?

Various cyberattacks on high profile organisations and brands across the region, including Malaysian Airlines, M1 and KBox, have highlighted cybersecurity as a real



issue for businesses keen to protect their assets and reputations, and graduated conversations around solutions and policies to the boardroom level.

We are seeing a shift in enterprises moving away from the traditional 'bolt-on' approach to cybersecurity that is associated with older legacy products. More enterprises are realizing that these solutions are not only expensive but also slow the network, while being incapable of providing prevention against today's more sophisticated cyber hacker.

### **How can these deeply held fundamental beliefs be used to harness sales?**

Enterprises are aware that cybercrime is a global problem, which continues to evolve, seeing demand for innovative solutions that are both cost effective, while offering full proof prevention against attack. This is where we come in.

### **What is Palo Alto Networks main aim since it has been established in the market?**

Palo Alto Networks was established in Asia Pacific in 2012 in Singapore, with the aim of helping governments, enterprises and service providers across the region protect their assets against attack. Our solutions have been well received, and we have continued to aggressively grow our market share and sustain our status as the fastest growing security company in history.

We were recently named as a leader in the Gartner's Magic Quadrant for Enterprise Firewalls 2015. We

are committed to innovating our solutions to stay one step ahead of would-be attackers.

### **A decade from now, how will the cybersecurity industry evolve and what are the kinds of cyber threats that can be predicted?**

It goes without saying that hackers will continue to be better funded and more sophisticated in their approaches as organised crime continue to move online. Cybercrime is now a multi-billion dollar black market industry and we expect this trend to continue. We also expect motivations around cyber espionage, cyber hacktivism, cyber terrorism and cyber warfare to continue to grow, with scammers upping their game by adopting tried and true cyber-crime techniques.

### **How can enterprises become more aware and change their behaviours in order to better defend against cyberattacks?**

Cyber education is crucial for enterprises to fully understand the dangers that can be posed to them via the Internet. People are any enterprise or organisations' first line of defence, so this must happen at all levels, being backed up by clear policies and protocols that aim to highlight where and how threats might originate in an organisation.

Establishing strong industry collaboration initiatives can also be useful in changing attitudes and behaviour around cybersecurity, especially when it comes to information sharing and best practices in the workplace.

### **How does Palo Alto Networks maintain its competitive advantage among so many other enterprise solution providers?**

Our unique solution natively brings together all network security functions so that each performs better using the information and actions provided by the other functions. The next-generation firewall removes the methods that threats use to hide from security through completely analysing all traffic on all ports, regardless of evasion, tunnelling or circumvention techniques. It then leverages multiple threat prevention disciplines, including IPS, antivirus, URL filtering and DNS inspection, to control known threats. Finally, our WildFire solution identifies unknown malware, zero-day exploits, and Advanced Persistent Threats in a cloud-based virtual malware analysis environment. This scalable service automatically develops and shares protections worldwide in as little as 15 minutes. In this approach, our customers have full visibility into their company's network traffic, with no compromises in their security posture. Our customers' consistent feedback is that they are more secure when using our platform than they were with their previous legacy architecture and, as a side benefit, they are spending less on our integrated platform than they used to by cobbling together disparate and point product solutions.

**For more information, please visit:**  
[www.paloaltonetworks.com](http://www.paloaltonetworks.com) **ESST**



# Reinventing Airport ID Pass Management

Article by Ian Cushion, Marketing Manager,  
Human Recognition Systems.

## Introduction

If you have ever applied for an Airport ID Pass, you know what a painful process it can be. All staff working either airside or landside (be it permanently or temporary) at an airport are required to have a valid ID Pass issued by the Airport they are working in. Whilst the rules underpinned by regulation have evolved or rather been added to, extended and further complicated, over 25 years, all except one of the UK's Airports still use the same paper based processes.

This article will examine the issues facing the current pass process and how new technology can help remove these issues ensuring a better process for all stakeholders.

## The problem

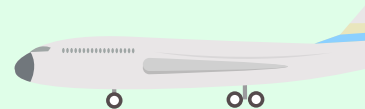
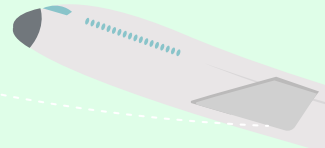
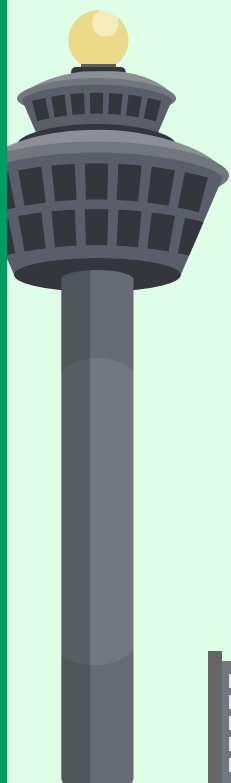
It is a confusing process for the companies applying passes for their staff. Application rejection rates for permanent ID Pass applications of

between 15 per cent and 80 per cent at Airports we work with confirm this. When the minutiae of rules (even to the extent of acceptability of certain letterheads or the colour of the ink used) differs from site to site this creates a further administrative effort for companies whose staff work at multiple sites.

This detracts from the serious security process at hand, focusing energy on the administrative overhead, rather than mitigating an ever present insider threat.

## For authorised signatories

Companies have to appoint an "authorised signatory" to legally undertake the Airport ID pass application process within their business. This person is then responsible for ensuring that relevant and correct information about ID pass-holders or applicants is passed to the Airport ID Centre and is kept up to date. For new applications they have a responsibility for obtaining





Gatwick Airport image courtesy of MAILONLINE

references and other documents, for example, criminal record checks, which in themselves are only valid on the day they are printed. They are also responsible for verifying aspects of each application. In practice the process is undertaken by existing roles within the organisation (Security, HR, Line Managers etc.), but increasingly it is outsourced at some cost to avoid the complexity.

The application process is not only complicated, it is slow. The end-to-end average lead-time to obtain an Airport ID pass can be up to 9 weeks, costing the UK Aviation industry in excess of £2 million per annum in lost productivity alone.

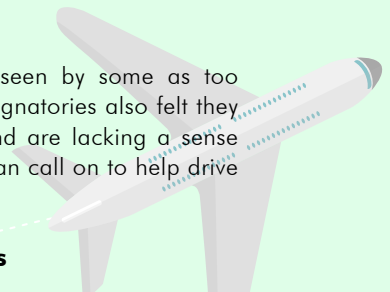
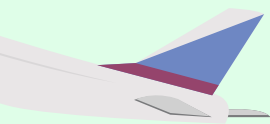
Despite all this, on-airport companies can be afraid to complain. Identity Centres at UK Airports are professional and have to balance security and customer service at the front line. Nevertheless, they are the gateway to the Airports and therefore

making a complaint is seen by some as too high a risk. Authorised Signatories also felt they were operating alone and are lacking a sense of community that they can call on to help drive any change.

**For airport ID centres**

However, this is not one-sided. The Airports too suffer from the process. One of the UK's largest and most respected Airports rejected between 20 to 25 per cent of initial applications due to administrative errors by the applicants and authorised signatories. Reports show numbers as high as 80 per cent in other leading Airports.

The lack of visibility for each pass application leads to more calls to the ID Centre, further taking their time away from their true job – to vet pass applications and ensure security at the airport.





### Why has it not changed?

There are a number of reasons why the process has not changed. Firstly there is no single owner. It is a federated process - a distributed process where different people control the different parts of the process. This means that pass processes have evolved differently at different Airports creating a lack of standardisation across the industry.

Secondly, due to the federated process, costs are hidden and distributed across all stakeholders. No-one organisation, be it an airport or an on-airport company, has a full handle on the costs across the whole process. Additionally most of the costs are associated to waste and inefficiencies within the process, they become difficult to quantify.

### The solution

#### Is automation the answer?

Technology has moved on – look at tax self-assessment. Even in this most rigorous, rule driven, government process taxpayers expect to submit their tax returns on line, ensuring more accurate returns, fewer errors and for any administrative errors to be spotted and corrected before the return is submitted.

Whilst the existing process is confusing for the applicants, frustrating for the Airports and feels overly complex for both, products currently in the marketplace to help improve the process are primarily aimed at just semi-automating the existing vetting process through proprietary software - normally to lock customers into specific vetting companies.

#### Re-engineering not just automating

The semi-automation of the vetting process, however, is only one element of the end-to-end process. This approach does not really embrace the overall waste in the existing Background Checking, Vetting, Verification and Airport ID Pass Application and Management processes.

Automation of a poor existing process does not make the process better. The process can only be improved through end-to-end change and re-engineering.

#### Cloud-based software as a service

By creating an online, cloud-based SaaS solution to handle the application, vetting and issuance of Airport ID passes, Airports open a raft of potential benefits.

Software as a Service (SaaS) is defined as software that is



Gatwick Airport image courtesy of MAILONLINE

deployed over the internet. With SaaS, a provider (such as Human Recognition Systems) licenses an application (for example, MTrust) to customers as a service on demand, through a subscription, in a “pay-as-you-go” model.

#### Flexibility and scalability

SaaS and Cloud solutions offer true flexibility and scalability and should give you confidence that the solution will be able to meet both your airport’s current and future demands. For example, during an airport’s busy summer or Christmas periods or large construction works that increase volumes for a period of time, a SaaS/Cloud solution such as MTrust requires no changes to the core system. It is simply scaled up to cope with the additional demand.

In fact, this flexibility is so crucial that 65% of businesses stated that it was an important reason to move to the cloud.

#### Automatic software updates, with improved support and maintenance

With SaaS solutions new functionality is available on demand and can be automatically updated with no intervention by the end user, nor any need to update servers, saving on average 18 man days a month. This minimises any potential disruption to an airport.

Additionally software support teams have instant access to your airport’s installation enabling faster resolution to cases and less downtime.

#### Disaster recovery

When Airports move to the cloud, they no longer need complex IT disaster recovery plans. Cloud providers take care of most issues, and they do it faster, meaning one less



job for an IT department and saving costs for the airport.

SaaS solutions provide enterprise level redundancy rather than reliance on tape backups and on average resolve failures 4 times faster than non-SaaS solutions.

**Cap-ex free**

With SaaS solutions, there is no upfront investment in software licensing, as services, such as MTrust, are typically pay as you go, so there’s no need for capital expenditure at all. As cloud and SaaS solutions are much faster to deploy, Airports have minimal project start-up costs, with predictable on-going operating costs.

**Work from anywhere**

All of our solutions are available from anywhere with an internet connection, enabling employees to complete an application for an airport ID pass whilst on the move. As long as employees have internet access, they can work from anywhere. This in turn leads to higher adoption rates amongst end users.

**Security**

With SaaS, no data is stored client side. Some 800,000

laptops are lost per year in Airports alone, but when everything is stored in the cloud, data can still be accessed no matter what happens to a machine. This security is extended to the cloud servers, with the level of data encryption provided by systems such as MTrust means that even if a server or disk is stolen, the data cannot be accessed.

The importance of such security should not be underestimated. In July 2014, the ICO (information Commissioner’s Office) fined the NHS, £325,000 after hospital hard drives containing sensitive patient data were sold on eBay.

Over and above the direct financial implications of fines, the reputational damage of a security breach can have a significant detrimental impact to a company, especially in today’s social media society.

**Copying with growing demand**

As Airports continue to grow in size and take on more staff, it is clear that the existing paper based processes will not be able to cope with the extra demand. This will lead to delays in staff getting on to the airport and further disruption to on-airport works and a decline in customer service.



Gatwick Airport image courtesy of MAILONLINE



Systems hosted in the cloud have the ability to be scaled up or down based on demand. And coupled with the pay as you go element, Airports can benefit from significant savings by using this scaling flexibility.

### Combatting the Insider Threat

Amid concerns about terrorists training in Syria and then returning to Europe or the United States, airport security officials remain focused on threats posed by “insiders” i.e. airport employees who could use their access to airport facilities to carry out a terrorist attack. This threat could come from any airline or airport employee with access to restricted or airside areas within the airfield, but what can Airports do to mitigate against insider threats?

The CPNI Insider Data Collection Study looked into the personality types, behaviours and organisational settings associated with insider activity. The CNPI believe there is a “clear link between an insider act taking place and exploitable weaknesses in an employer’s protective security and management processes.”

We believe that Airport ID Pass management systems, whilst not offering an all-encompassing panacea for solving the insider threat, can help Airports address the key weaknesses identified by the CNPI:

#### 1. Poor management practices and a lack of awareness of people risk at a senior level/ inadequate corporate governance:

With the best of breed processes embedded, Airport Pass Management Systems overcome any existing poor practice. Employing these systems allows a cultural shift in how we manage insider threat to aviation, from the top down.

#### 2. Poor use of auditing functions:

The new systems offer traceability and auditing at their heart. For example, a user Audit that tracks every action performed by all users in detail.

#### 3. Poor security culture

The new way of issuing an Airport ID Pass alleviates attention to administrative functions in the ID pass process. The old paper based processes bogged down vetting agents in the paperwork. Removing this means agents concentrate on security and identifying risks, rather than typos.

#### 4. Lack of adequate, role-based, personnel security, risk assessment

Systems hosted in the cloud allow a better classification of roles. Allowing different users to perform different actions, based on their roles.

#### 5. Poor pre-employment screening

An online system can ensure that Airport ID Passes cannot progress without the required criteria being met e.g.:

- 5 years history must be covered by references
- A valid GSAT certificate has been provided
- A valid Security Clearance reference (e.g. Basic Disclosure, CTC) has been provided

#### 6. Poor communication between business areas

Online systems enable online communications and communities within the system design. This ensures that communication is carried out both within and across organisations involved in countering the threat to aviation to ensure best practices across the industry.

### Our solution: MTrust

MTrust is a revolutionary Airport ID Pass Application vetting and issuance solution, hosted in the Cloud. It provides streamlined Airport ID Pass management with absolute certainty of identity.

MTrust automatically checks all applications before they are submitted, reducing rejections by greater than 90% and allowing your vetting agents to concentrate on the important things. MTrust also gives Authorised Signatories total visibility of application status, allowing your agents to focus on security and not on incoming phone calls.

The key innovation of MTrust is that Airport workers become Members in the system, allowing them to store their profile in perpetuity. When they leave one company to work for another whether at the same or another Airport, they simply resubmit their profile and MTrust automatically completes their Application only alerting them to gaps. This innovation coupled with the ability to allow Authorised Signatories and individual applicants to check the status of their pass at any time brings a new level of customer service into the ID Centre service.

Developed with London Gatwick Airport, MTrust has created a thriving community of airlines, Airports and



on-airport companies, including 2,500 Authorised Signatories. As more Airports select MTrust, with London Luton the latest, Authorised Signatories will already be registered, with employee information ready to submit. This will lead to greater information sharing across Airports, standardisations of the ID pass process and through reduced wastage and greater operational efficiencies it will create annual savings to the UK aviation industry of millions of pounds.

**London Gatwick Airport**

As Gatwick look towards 45 million passengers and a second runway, it is important for them to be ready for growth and a significant increase in the number of staff that will require an airport pass.

Gatwick appointed HRS to deploy MTrust to transform its ID Centre. MTrust is a revolutionary Airport ID Pass Application vetting and issuance solution, hosted in the Cloud. It provides streamlined ID Pass management with absolute certainty of identity and powerful tools to transform

the Airport ID Centre performance.

In January 2015, Gatwick became the first airport to have a paperless process for issuing its Airport ID Passes and MTrust remains the only live system proven at scale across multiple airports.

To date MTrust has delivered the following results:

- Over 35,000 applications processed to date at an average rate of 8,500 passes per month.
- 93 per cent approved with just 1.4 per cent rejected and the rest in progress.
- 35 per cent proven ID Centre efficiency gains.
- All application types have been processed; company, vehicle, people.
- 71% of people within MTrust have profiles that can be used again in the future.
- Gatwick have been able to reduce their SLA for responding to initial pass applications from 2 days to just 45 minutes.
- Happy ID Community – 95 per cent

of the 2,500 Authorised Signatories say MTrust will give them better visibility of pass applications, reduce calls to the IDC and enhance security.

- Over 20,000 people belong to the MTrust community.

MTrust has created a community of Airports, Authorised Signatories and Employees who are able to transfer and share information between them for mutual advantage. Over 800 companies have processed a pass application including leading on-airport companies such as British Airways, Emirates, SSP, Boots, Costa Coffee, Swissport, NATS and World Duty Free.

MTrust is also TUPE & Transfer Ready. Employees can apply to register their employment at multiple companies simultaneously, facilitating distributed workloads for quick, simple TUPE transfers and eliminating duplication of data where employees work for more than one employer.

**For more information, please visit:**  
[www.hrsid.com](http://www.hrsid.com) **SST**



# DAHUA ELABORATES ON THE APPLICATION OF H.265 COMPRESSION STANDARD

Article courtesy of Dahua Technology

## Introduction

Driven by the constantly growing market demand for high-definition (HD) and the development of image processing, 4K is a popular term in the industry. It has started to play an increasingly vital role in video surveillance, especially for applications such as, safe city, parking lot, harbor, plaza and anywhere else that is large scaled and has a strong demand for detail capturing. Seeing a future in this area, Dahua Technology has began introducing and developing the H.265 compression process, which brings about extensive possibilities and optimism to the industry by addressing problems such as shortage of bandwidth, improving transmission efficiency and delivering other benefits.

## Benefits of H.265

High Efficiency Video Coding (HEVC), also known as H.265, is a proposed video compression standard, a successor to H.264/MPEG-4 AVC (Advanced Video Coding), currently under joint development by the ISO/IEC Moving Picture Experts Group (MPEG) and ITU-T Video Coding Experts Group (VCEG).

In comparison to the current mainstream AVC standard H.264, H.265 is said to be capable of further reducing 50 percent of the data rate requested for high quality video coding. Bitrate is acclaimed to have around 40 percent to 50 percent reduction at 1080p while rendering superb image quality.



In summary, firstly, the H.265 can downsize a video footage to a great extent while playing fairly smooth video with low bandwidth, and all these benefits further drives market demand on 4K/Ultra HD and secondly, with the fast development of 4G and mobile technology, the integration between the two industries will bring about amazing possibilities.

### Dahua's H.265 product line-up

Despite all of its benefits, the current of H.265 compression standard is still new to video surveillance industry and will take some time to be adopted and implemented. Dahua Technology has

been charmed by its prospects that plans are already in tow to make the H.265 a reality.

In eagerness of its outlook, Dahua has adopted H.265 in its latest product portfolio, including network camera, NVRs, transmission devices as well





as video-wall systems. To kick start the plans, Dahua has released its latest 5.0 Megapixel ultra-smart network camera that uses H.265/H.264 dual codec that allows over 40 percent lesser bandwidth usage while acquiring outstanding image quality. Moreover, with its functions that include ultra defog, RoI, and intelligent detections, the camera can make surveillance clearer, smarter and smoother. Through this, Dahua Technology can foresee more H.265 cameras in different resolution to enter the market.

When it comes to back-end devices, Dahua was the first in industry to introduce a comprehensive H.265 4K NVR product lineup, which covers various demands, including small-to-medium as well as large-scaled applications. These NVRs are up to 12.0-Megapixel decoding capability, supporting 1080P @ 60fps and H.265 preview and playback; 4 channel 4K real-time live view and playback; meanwhile, its intelligence functions including behavioural analysis, facial detection and more are also supported. Additionally, the R&D team has put energy consumption into consideration at planning phase to make the product eco-friendly.

Dahua also introduced a control platform M70 with H.265 standard, the platform can decode multiple channels of H.265 videos at the same time; and thanks to modular design, M70 can maximise to handle up to 40-channel UHD video outputs with each supporting H.265 decoding; furthermore, these HD output videos can be presented as an integrated image by combining HD outputs.

### H.265 brings more possibilities

“Obviously, H.265 is one of the major compression standard that allows us to implement UHD solutions, such as 4K or even 8K, which is definitely the trend of video surveillance.” said James Wang, Product Director of Dahua Technology.



“The benefits H.265 brings are not limited to the above,” Wang continued, “just like a magician hat, you can expect much more from it, for example, our R&D has carried out some great performances on bitrate control, image quality balance as well as intelligent analytics and tracking.”

“For me, I always feel thrilled towards new things and technologies as they have the potential to nourish many new possibilities, to bring products, industry, even the society to a better shape,” Wang added. “H.265 is just the right example, we are confident that we are able to tap on the potential of this compression standard and make full use of it, so my advice is keep yourselves up to date with Dahua Technology and the latest trends.”

**For more information, please visit:**  
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# AN INTERVIEW WITH



## BILL TAYLOR, VICE PRESIDENT OF LOGRHYTHM ASIA PACIFIC AND JAPAN

### How has cyber crimes evolved throughout the ever-changing phases of technology?

Ten years ago, traditionally, we have the anti-spam and anti-virus types of software on your computer at home and similar sort of things being deployed in enterprises or larger companies. Then there are things like firewall to try and protect servers and networks. So it really has evolved into more of a security intelligent solution because having too many of those boxes and pieces of software to protect your environment and also your people becomes a little too hard. This is because of the different manufactures, which results in you having 5 different boxes to protect just one environment and that is a real challenge. Today, we are looking at analytic tools – monitoring of every device within one network including mobile phones and understanding all of the information there to know what is currently being deployed. If there is anything outside the ordinary or the usual information, you will be alerted.

60 per cent of all the breaches are internal and generally comprised credentials. This means stealing of other people’s username and password or using their own username and password for illicit gain or wrongdoing.

### How do we actually build a safe cyber world?

There are areas of strategic perspective as to how we make a safe city as opposed to a smart city. For example in Singapore, looking at things such as information sharing; the more information you share between organisations, the more exposed the threats become and therefore the more people will be working on them and trying to fix them and this is actually one of the key areas.

Second area is having intelligence that can be very meaningful to you. As you are monitoring your company network, you keep getting prompters that inform you that, “this thing keeps coming up” or “that user is doing this” or “this IP address keeps doing this”. These are things that could be a concern for you as a company therefore having that regular intelligence and being able to share that with the directors, chairman or various people of leadership in the organisation so they can take the necessary actions and make decisions effectively and efficiently.

One thing that has been missing is an effective model to measure and manage ‘Mean Time to Detect’ and

‘Mean Time to Respond.’ A recent survey shows that there are about 7 months between detection and how long that malware or that breach has been in the system for. We need to close that gap between the detection and response time.

### What are the signs to detect a potential hacker?

One very prominent example is going to areas where you would normally not be associated with – if you were from the marketing department and going into the finance server. The main purpose of this is hackers wanting to steal credentials that would allow access to important information or data. This is the reason why some companies have restrictions on where you, as an employee, can go or what you can do.

There will be tell tale signs to get one to notice that this user, for instance, from this particular IP address is actually trying to hack into a closed network or system.

### What are latest methods in countering cyber crimes?

The first method is behavioural analytics: looking at pattern recognition, profile recognition and profiling of behaviour. All these need to be observed and followed closely to know if there are any loopholes somewhere. If patterns change, there is a need to record and track changes. Each device can generate thousands



of logs and for a big company there could be hundreds of millions of logs. This makes it almost impossible to find a particular hacker, which is the method that has been used for the last ten years.

In current technological climate, what can be done is to analyse 97 per cent of the data using machine analytics. The machine scans everything in real-time to see if there is something to be concerned about. This method saves time on picking out users that stir suspicion instead of having to go through billions of logs manually.

Another method is security intelligence

– to observe a pattern and consistently keep track of what is going on within the organisation’s network.

**What are the technologies that will help make it easier for cyber criminals?**

Some of the tools present in the market right now that are being used to take away mundane hacking will be growing and expanding. From there, these tools can possibly be options for future hackers to take advantage of.

From another perspective, an example is the terrorist group, ISIS,

using advertising mediums recruiting professional cyber hackers. This, in itself is a window of opportunity for these cyber criminals to breed.

There are always two sides to everything. Technologies, although most of the time is a core advantage, can sometimes help in aiding cyber criminals and all their intentions as well. But the whole point is to keep inventing and innovative preventive measures that can grow alongside the magnitude or damage being done by these cyber criminals.

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# "Crunch Time" At Government Facilities For Vehicular Perimeter Security Systems



Article by Greg Hamm  
Vice President of Sales  
& Marketing  
Delta Scientific

From embassies and federal courthouses to transportation hubs and military bases, a wide variety of government agencies protect themselves from errant drivers and truck bomb threats with barriers, bollards, barricades and crash gates.

Remember when, in April of 2010, barricades at the United States Consulate in Peshawar, Pakistan, helped retain the attackers. They prevented the bomber's vehicle from crashing past the pedestrian gates and forced the attacker to detonate the truck bomb far from the building. This saved many lives and the building.

Delta barricades at the United States Consulate in Herat, Afghanistan, also stopped a bomb-laden car and SUV from penetrating the entrances to the facility. The Taliban attacked the consulate in western Afghanistan with car bombs and guns on Friday, September 13 (2013), killing at least four Afghans but failing to enter the compound or hurt any Americans. The two drivers of the explosives-filled vehicles did not survive.







The barricade that protected the consulate staff in Herat will stop a 6,803kg vehicle going at 64 kilometres per hour. Certified by the U.S. Department of State, it features a phalanx-type rising plate barrier mounted within multiple inertial pods and can be deployed in high traffic locations for full manual or automatic operation within two hours. The plate barrier lies level to the ground to allow vehicles to pass and is raised or lowered into position utilising a hydraulic cylinder driven by a Delta hydraulic power unit or manually.

Typically, though, terrorists do not go where they see barricades, so placing them wherever possible attacks can happen reduces security risks dramatically, even if the need is only short-term. Temporary barriers can temporarily protect facilities during events, such as an international summit or presidential visit, until permanent barriers are installed, and where physical conditions preclude permanent solutions, such as the State Department does to protect our embassy on Paris' city streets.

### **A high school physics reminder**

A vehicle moving at 80 kilometres per hour has 25 times as much kinetic energy as it would at 10 metres per hour. Thus, an armoured car weighing 30 times as much as a Toyota Corolla and moving at 16 kilometres per hour would have less hitting power than the Toyota moving at 96 kilometres per hour.

Due to this, every effort must be made to force a vehicle to slow down before it reaches the barricade. The most frequently used technique is to require a sharp turn immediately in front of the barrier. When vehicle speed is reduced by 50 per cent, the "hitting power" is reduced by nine times.

Upon designing a way to slow down vehicle approach, precautions should also be taken that the attacking car cannot make a "corner cutting shot" at a barricade. Often, only a light post defines a turning and a speeding car can take it out and not even hesitate. Knolls and other impediments should be considered. If the approach to the facility is long, it is best to create curves along the access roads as a natural obstacle to speeding cars or trucks.

### **Overcoming common design deficiencies**

Without adequate testing, there is no assurance that the



barrier will resist the threat. Testing is normally by an independent testing company or government agency, such as the Department of State (DOS) and the military.

Today's barriers are capable of stopping and destroying a truck weighing up to 29,483kg and travelling at 80 kilometres per hour. Such barricades can be raised or lowered at will to stop traffic or let it through. In an emergency, the thick steel plates or bollards pop out of the ground within one second. A mobile barrier can be towed and set up in only 15 minutes. Nonetheless, it will stop a 6803kg vehicle going at 64 kilometres per hour.

One final area that should not be overlooked is aesthetics. With today's smart designs, it is no longer necessary to choose between form and function. You can have them both. Designers are creating secure environments with more compatible and aesthetically pleasing architectural elements.

For government organisation striving to create as green of an environment as possible, barriers, barricades, bollards and crash gates can be operated either manually, electro-mechanically, pneumatically or hydraulically on vegetable oils. There is a growing trend to use pneumatic barricades to be greener.

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# AN INTERVIEW WITH



## RENÉ JUNGBLUTH, HEAD SOLUTION AND SERVICE PORTFOLIO, BUILDING TECHNOLOGIES DIVISION, SIEMENS

**The security industry, which tends to be conservative and traditional, is facing many new developments. Big data, the Internet of Things and open standards are some of the hot topics. At the same time, the supplier market is undergoing consolidation. What significance does the security business have for Siemens today?**

Security remains a core business for Siemens. We pay attention to market trends and are open to the needs of our customers. Intelligent networked security solutions are the future of security in buildings and infrastructures. We are investing heavily in research and development of new security solutions for smart buildings and critical infrastructures because we want to be involved in actively shaping the future. For this purpose we operate dedicated security research centres in Europe, Asia and America – ideally situated and

in close proximity of our customers. Thanks to our local presence, we are familiar with the legal and regulatory environment. This allows us to give our customers peace of mind when it comes to compliance and meeting legal requirements.

We are also advancing the Internet of Things emerging in the building technology sector as more and more field devices and sensors are being networked. Big data and data analytics for predictive and preventive security measures are forward-looking topics we are actively pursuing.

### **Are all security solutions ultimately implemented using products?**

Of course, and that is why we continue to offer our own security products from our extensive Siveillance portfolio as well as security for Desigo CC, but those are software-based.

Here is just one example; recently we launched Siemens Siveillance VMS, an IP-based, open video management software solution. With our consulting services and software portfolio we deliver complete customised solutions which, when needed, are complemented by products from renowned third-party vendors. These are thoroughly tested by Siemens to ensure that our customers can rely on them 100 per cent.

### **How is Siemens, as a global company, able to meet the regional and local security needs and requirements, which can vary greatly?**

In our Security Centres of Competence, which can be found all over the world, we develop suitable security solutions for local customers. Our integrated security concepts include consulting and risk analysis of the situation, design of suitable solutions, commissioning and continuous modernisation all the way to employee training.

On the one hand, we offer the investment security of a global company. On the other hand, through our subsidiaries worldwide we are in close contact with our customers and understand the specific business processes of many different industries. This is something that sets Siemens apart from other competitors in the security sector.

### **To what degree have physical security and IT security merged in modern building technology?**

Not all customers are aware of the relationship between physical and IT security. The CIO is usually responsible for IT security, whereas the facility manager takes care of



building security. Organisationally, they are often in separate departments with separate budgets.

The fact is that building security is increasingly IT-based. For example, to an increasing extent access control and state-of-the-art video surveillance systems are communicating over the IP protocol, which allows data transmission over standard comparable regulations for access control and video surveillance. However, because the security industry depends on standardisation, it is pushing toward IT industry standards.

### **How can you merge existing heterogeneous security systems into a complete solution without affecting business continuity?**

We have always viewed security as an embedded process in businesses. We have solid knowledge of customer processes, for instance in production and logistics, in a range of industries. Our security solutions accommodate these processes and protect them without impeding and interrupting them. That is another essential advantage of the Siemens group, which is highly diversified and active in virtually every industry sector.

In today's business world, a wide variety of security systems are deployed, typically as standalone systems at specific locations. These insular solutions are often implemented without adequately considering the enterprise-wide security concept and the impact on operations. Employees may need different ID cards for access to different locations and applications, which slows down processes and

increases susceptibility to risk.

This is where our One Card concept comes in. It manages all identities and authorisation through a standardised, centralised software approach. Cardholder data is collected just once and automatically synchronised with the company database in real time. That saves time and money and allows the customer to establish an enterprise-wide security culture and enforce policies. Physical identity Access Management (PIAM) will play a significantly greater role in future.

### **You mentioned "Intelligent security solutions." How can they be integrated into building automation operations and processes so they add value?**

In the past, and to some extent even now, the different security systems – access control, intrusion detection and video surveillance – are viewed and operated as separate disciplines. Integration means developing comprehensive scenarios for these disciplines – and for building automation disciplines – that offer real added value to the customer.

Let me give you an example: An access controls system reads the badge of an employee who works on the seventh floor. The lighting and room climate is then adjusted based on the employee's workstation profile – just for his or her workstation, not everywhere. In this case, intelligence connects security with energy efficiency and comfort.

For this type of intelligent security,

we have developed Desigo CC, an open platform that integrates the different disciplines in the building. By enhancing the functionalities of existing disciplines to boost the comfort and security of people in the building, we create added value for our customers.

### **How important are security-related services and what innovations are Siemens offering in this area?**

Security as a service begins with developing an optimal security concept for the customer. First I need to know what is important to the customer, and then I need to conduct an overall risk analysis. Finally I need to have the expertise to assess which measures might help minimise these risks and which of the current technical solutions will be useful in achieving this goal. Siemens has both the consulting expertise and the solutions. Yet cost-efficiency is always at the fore.

One of the innovative consulting services we offer to building operators is evacuation simulation. We analyse the possible escape routes in existing buildings or new construction. This analysis illustrates what would happen if a fire were to break out somewhere in the building. The simulation can also be used as a virtual training tool for first responders.

**For more information, please visit:**  
[www.siemens.com/buildingtechnologies](http://www.siemens.com/buildingtechnologies) **SSS**



# Synology's Versatile VisualStation VS360HD

Synology's VisualStation VS360HD is both a durable and compact monitoring solution. When paired with a Synology NVR running Surveillance Station, VS360HD is able to decode and display without latency up to 36 channels of HD video to a HDMI/VGA monitor, making it the perfect replacement for a costly computer.



Free from moving parts, VS360HD is more resistant against vibration and hardware failure. It is an ideal solution for surveillance monitoring at a front desk in a hotel, shop, or office building. The dual mirrored video output and USB ports also make VS360HD an affordable choice for TV Wall solutions. Its solid outer case and rigid design allows VS360HD to run within industrial temperature rangers from -20 degree Celsius to 50 degree Celsius.

VS360HD is suitable for both beginner and advanced users. The intuitive interface ensures easy access to the most common functions, such as Live View, Customisable Layout, and Timeline. The Recording List allows for browsing and exporting recordings. With a few simple clicks, useful camera angles can be saved and grouped together to form "Patrol" cycles.

With a total of three USB ports, the VS360HD can connect a mouse, keyboard, and even a joystick for PTZ control. The whole system fits in a palm-sized enclosure and can be easily attached to a wall or the back of a screen with the included VESA compatible mounting kit.



For more information, please visit: [www.synology.com](http://www.synology.com) **ESST**



# Pinless protection with a high level of theft deterrence – iS AUTOPEG TAG



The Checkpoint iS AutoPeg Tag is an anti-theft solution and a natural fit for high-risk items displayed on peg hooks. This solution snaps quickly and safely on single- or double-hole packaging and can be easily removed at POS for reuse.

- **Lightweight and strong:** Pinless one-piece design is safe and effective
- **One-click locking mechanism:** Easy attachment on single- or double-hole packages
- **Quickly removable at pos:** Works with all detachers, including S3 key
- **Preserves product branding:** Minimal interference with package content
- **Rugged and reusable:** Difficult to defeat with common tools; retains its effectiveness even after repeated use

For more information, please visit: [www.CheckpointSystems.com](http://www.CheckpointSystems.com) SST



# Arecont Vision Debuts **MicroDome G2** Enhancements And Line Expansion



**A**recont Vision is displaying feature enhancements and a new addition to the popular MicroDome IP Megapixel Camera series. The new MicroDome G2 cameras have been enhanced with the added convenience of remote focus and three-axis adjustment to facilitate ease of installation and set up. This is the second generation of Arecont Vision's popular all-in-one ultra-low profile MicroDome family.

The MicroDome G2 1.2MP model features NightView low light technology and an integrated 2.8mm lens. MicroDome G2 cameras are also available with optional Wide Dynamic Range (WDR) in 1080p and 3MP resolutions.

All MicroDome G2 cameras employ true mechanical day/night IR cut filters for excellent low light performance, with NightView technology on 1.2MP models and with pixel binning available on 3MP and 5MP models. To further enhance performance in scenes with highly contrasted lighting, 1080p and 3MP models are available with True Wide Dynamic Range up to 100dB at full resolution without lowering frame rates.

MicroDome G2 features also include dual H.264 (MPEG – 4 Part 10) and JPEG encoding, fast frame rate, on-camera privacy masking, motion detection, bit rate control, multi-streaming, and forensic zooming. MicroDome G2 cameras are IP66 (-S models) and IK-10 rated for use in challenging environments.

Arecont Vision's commitment to reliability, quality and performance continues to drive high-levels of satisfaction with both our valued channel partners and customers around the world.

For more information, please visit: [www.arecontvision.com](http://www.arecontvision.com) *SST*



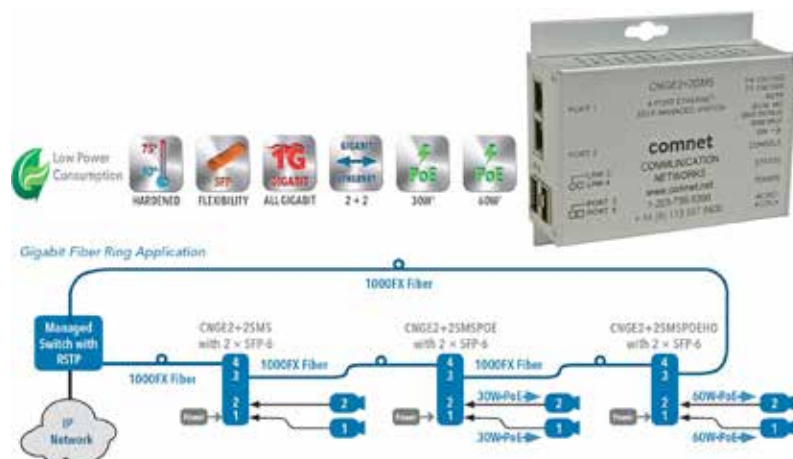
**comnet**  
Communication Networks

# ComNet Introduces Industry's First Plug & Play Redundant Ethernet Ring Switch For Ring Network Topology

Take the complexity out of your next IP video application with the new CNGE2+2SMS from ComNet. CNGE2+2SMS is a four port intelligent switch with light management functionality. The CNGE2+2SMS provides exclusive functionality for easy field deployment including DIP switch based operation of RSTP for creating redundant network topologies as well as preventing network video flooding of multicast traffic when used in a linear or star topology.

In plain the switch allows you to build your IP Surveillance network without mastering complex programming knowledge. The switches aid setup and eliminate programming – no laptop required, avoiding high cost of Managed Switches and around 50 – 75 per cent faster to install than a traditional managed switch. Weighing only 200 grams and measuring 10.4 x 9.4 x 3.7 cm, the CNGE2+2SMS is probably the smallest switch available on the market and ideal for use in confined spaces.

Ports 1 and 2 can optionally supply up to 30 watts of power per port based on the IEEE 802.3at standard. An optional High Output (HO) version is also available that can supply up to 60 watts of PoE from ports 1 and 2.



According to Steve Clarke, ComNet Europe Managing Director, "ComNet has always focused on taking the complexity out of IP video networks. With this new product, in addition to making a ring topology network easy to implement, we're able to remove a costly element, and giving our customers the opportunity to save about 25 per cent versus using managed switches. The ComNet CNGE2+2SMS is another example of ComNet understanding the needs of the market."

"Our extensive line of self-managed switches has been a huge success. With the introduction of the CNGE2+2SMS self-managed switch, we continue to round out our switch offerings and solve a multitude of challenges our customers face," said Skip Haight, ComNet VP of Marketing. "ComNet understands the benefits of Ethernet and with the CNGE2+2SMS, we have removed the complexity and cost associated with these types of IP-video applications," Haight continued. Additionally, CNGE2+2SMS is made in USA and comes with Lifetime Warranty as standard.

For more information, please visit: [www.comnet.net](http://www.comnet.net) SST



## Dahua Releases 2-inch Network Mini PTZ Camera Series

**D**ahua Technology introduces its 2-inch network mini PTZ series cameras to the market. This 2-inch network mini PTZ series supports up to a maximum of 25/30 fps @ 1080P and 50/60 fps @ 720P resolution together with H.264 and MJPEG dual-streams encoding. The mini PTZ series also feature 4x optical zoom, WDR, weather proof, vandal proof and other functions.



### Mini size

With minimalistic design, the Dahua SD22204T-GN's size is rather comparable to a credit card and with multiple functions.

### Easy to install and control

Unlike the usual hassle of installing dome cameras, the mini network PTZ camera needs just one step to install and can be mounted to the surface of the ceilings. With 360-degree wide viewing, the camera is able to capture increased level of details by zooming in on the item. This will minimise chances of missing out on any critical information.

### Outstanding performance

The WDR Enhancement feature is ideal for different light variation scenes due to its ability to combine the brightest and dimmest areas of an image and produce a balanced but still detailed result image.

The SD29204S-GN is awarded the Red Dot Award 2015 for its design. Additionally, the Dahua SD29204S-GN also supports IR range of up to 30 metres. All of its functions are of 'value for money' despite of its minute size. It is a well-rounded solution especially for the retail, hospitality and residential security.

For more information, please visit: [www.dahuasecurity.com](http://www.dahuasecurity.com) **EST**



**MicroEngine**<sup>®</sup>  
Integrated Security Systems

# MicroEngine's POE Powered Encrypted IP One Door Access Controller



**M**icroEngine 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> *SS*



## SmokeCloak System Designed To Secure Premises And Stock

**M**ost property loss occurs in the initial minutes of break-in. SmokeCloak can be installed on the premises and within seconds of any criminal break-ins, the protected area is filled with impenetrable cloud of fog. It is designed to act within the critical time gap between the alarm's activation and the response team's arrival at the scene. Extremely powerful artificial fog generators sold under the SmokeCloak brand are constructed to work together seamlessly with existing alarm installations, providing physical protection at the moment of attack.



The SmokeCloak products are applicable for varied situations from rooms to targeted use with vans, banks and store fronts. MSS Professional offers warehouse protection, with the SmokeCloak palced high and out of range from vandalism.

MSS Professional uses patented technology that protects personnel and valuables. The fog density is auto-regulating, meaning that the density is constantly optimised for the protected area, even if the intruders smash windows in an attempt to disperse the fog.

Furthermore, SmokeCloak products and consumables have undergone extensive international testing and certification. The fluids used in SmokeCloak products are made from pharmaceuticals and food-grade glycols, meaning that the vapour is safe for humans, animals and property

For more information, please visit: [www.stratel.com.my](http://www.stratel.com.my) SST



# VIVOTEK's Latest License Plate Capture Solution 1P816A-LPC, Real Time Surveillance For Traffic Monitoring

VIVOTEK's first dedicated license plate capture solution, the IP816A-LPC is a 2 Megapixel box network camera with IR LEDs is specially constructed for 24/7 day and night traffic monitoring environments such as streets, tunnels and parking lots.

As part of its continued endeavour to provide the market with network cameras of superior image quality, VIVOTEK has dedicated resources to bolstering its portfolio of License Plate Capture Solutions. The IP816A-LPC is designed to capture vehicles with both reflective and non-reflective license plates travelling at speeds of up to 80km/h. The IP816A-LPC has 2-Megapixel resolution and is able to provide wide coverage views of dual-lane traffic and optimise installation efficiency while still ensuring superb recognition results. The IP816A-LPC is also integrated with the Overseer LPR software developed by VIT Company, one of the famous LPR software manufacturers in the world, to produce captured license plate image for LPR applications.



Leveraging the top-notch quality of VIVOTEK's IP816A-HP and equipped with two external long-range IR LEDs and a built in IR pass filter, the IP816A-LPC can automatically generate sufficient illumination and decrease reflective glare in order to capture license plates clearly even in difficult lighting conditions. The VIVOTEK's advanced technology of LPC solution, such as WDR Pro, 3D Noise Reduction, RBF (Remote Back Focus), EIS (Electronic Image Stabilisation), Snapshot Focus, configurable shutter speed, P-iris lens and IR illumination control, ensures optimal image quality all the time and in all conditions. Furthermore, the IP816A-LPC is armed with a robust IP66-rated and IK10-rated housing to enable the camera's body and IR LEDs to withstand rain and dust and to protect against vandalism or tampering.

For more information, please visit: [www.vivotek.com](http://www.vivotek.com) SST



## Model: VISIX V-Series Standard Dome, Bullet and Mini-Dome Cameras

By: 3xLOGIC

[www.3xlogic.com](http://www.3xlogic.com)

- VISIX V-Series All-in-One, edge-based IP cameras are full-featured VMS and advanced analytic capable
- Complete surveillance solution for the SMB market and for unique single-point applications
- Embedded analytics algorithms automatically self-adjust, so user can concentrate on all-important detection rules
- Embedded VIGIL Server software allows cameras to run as stand-alone devices, recording video to the onboard memory card
- Compatible with 3xLOGIC's existing software suite including VIGIL Client, VIGIL VCM, VIGIL View Lite II, and VIGIL Cloud applications
- Simple plug-and-play installation enables camera access from standard web browser, VIGIL Client, or mobile device
- Simultaneously lays the foundation for end users to harness the power of the cloud



## Model: FalconEye – SECUR ZONE

By: Candid Security Solutions LLC

[www.candid-ss.com](http://www.candid-ss.com)

- The world's first LPR program to recognise Arabic characters and numerals.
- Providing a very high recognition rate of 95 per cent plus.
- Highly reliable running day and night all through the year in all weather conditions.
- The first in the MENA region to successfully identify colours
- It takes a fraction of a second to read, process and identify the number plate.
- Sekur Zone can identify cars traveling at speeds of up to 260 kilometres per hour
- The LP database can be searched using plate number, time, date, employee name, site and lane



## Model: SurroundVideo G5

By: Arecont Vision

① [www.arecontvision.com](http://www.arecontvision.com)

- SurroundVideo G5 Panoramic Camera enhancements include standard form factor models with an option for Wide Dynamic Range (WDR) at 12MP resolution to capture useable video in scenes with highly contrasted lighting
- The SurroundVideo G5 camera series delivers superior 180 degrees and 360 degrees wide area coverage and strong financial benefits
- New models include the 5MP SurroundVideo G5 with STELLAR (Spatio Temporal Low Light Architecture) technology and remote focus P-iris lenses
- Standard and smaller form factor versions of 12MP and 20MP SurroundVideo G5 cameras have also been added, each with double the frame rate of previous models
- Additional highlighted features of SurroundVideo G5 megapixel panoramic cameras include dual H.264 (MPEG-4 Part 10) and MJPEG encoders
- 12MP and 20MP models offer pixel binning for increased sensitivity in low light applications



## Model: savVi BI Portal

By: Agent Video Intelligence

① [www.agentvi.com](http://www.agentvi.com)

- savVi is Agent Vi's unified video analytics platform offering Real-Time Event Detection, Video Search and Business Intelligence
- savVi's Business Intelligence (BI) capabilities enable effortless extraction of data from surveillance video to present traffic volumes, movement trends and motion patterns
- savVi BI Portal is Agent Vi's initial cloud-based video analytics service
- BI Portal allows the aggregation, analysis and presentation of statistical data (people / vehicle counting, occupancy, crowding, speed analysis) acquired from savVi installations at different locations through a single, web-based interface
- Customisable dashboard enabling each user to view the information most relevant to them
- Accessible via web browser using any PC or tablet browser
- User-defined, scheduled reports distributed via email
- Benefits customers such as retailers and other multi-site operators, who require insight into operations at their various sites





## Model: 7K HD Pro Camera

By: Avigilon Corporation

① [www.avigilon.com](http://www.avigilon.com)

- Security industry's first single-sensor camera at 7K (30 MP) resolution
- Captures high-quality, detailed images over wide areas, while providing maximum coverage, ideal for stadiums, airports, parking lots, transportation facilities and critical infrastructure sites
- Avigilon's patented technology, High Definition Stream Management (HDSM) 2.0, with H.264 compression, allows for maximum image quality while minimising impact on bandwidth, storage and network performance
- Supported by Avigilon's LightCatcher technology, which provides a superior level of low-light performance
- Compatible with a wide range of EF mount lenses for the best possible optical quality
- Remote focus and iris control of SLR lenses for ease of installation and operation
- SDHC and SDXC card compatibility for storage of video footage directly on the device



## Model: FLIR TCX Thermal Bullet Security Camera

By: FLIR Systems

① [www.flir.com](http://www.flir.com)

- Features high-performance, high-resolution thermal technology for the best intrusion detection and visual awareness in daytime or night-time conditions
- Feature high-performance, high-resolution thermal technology for the best intrusion detection and visual awareness in daytime or nighttime conditions
- Delivers two resolution options: 480 x 360 resolution with a 90 degrees lens, and 320 x 240 resolution with a 50 degrees lens and user-selectable 16:9 or 4:3 aspect ratios
- Compatible with ONVIF Profile S IP, MPX (HDCVI), and analog systems, the TCX Thermal Bullet has the flexibility to easily install into any new or existing system
- The cameras can easily integrate into any environment, indoors and outdoor
- Featuring both intrusion detection and accurate video alarm verification in one device, the camera also supports lighting control, people counting, retail traffic flow, and queue management, and enables a whole range of other applications



## Model: AHD 1.3 Megapixel IR Dome

By: IWATCHS SDN BHD

① [www.iwatches.com.my](http://www.iwatches.com.my)

- 1.3 Megapixel Resolution
- 3.6mm Fixed Lens
- WDR (Wide Dynamic Range)
- 24 LEDs
- Approximately 15m IR Distance
- 3-Axis Camera adjustment
- Min 1000mA / DC12V with IR LED on
- -30 to 60 degree operation temperature



## Model: GTC – 282 (Full HD 1080)

By: Global Top Technologies (M) Sdn Bhd

① [www.gtc.my](http://www.gtc.my)

- 2 Megapixel
- Full HD 1080p real-time + D1 real-time
- Smart IR Mode, 2pcs IR LED Array
- IR LED module (Distance up to 40m)
- Digital WDR/ Day/Night (ICR)
- Slow shutter
- Privacy masks
- 3D noise reduction



## Model: Optera IMM Series 12 MP Mini Domes With SureVision 2

By: Pelco by Schneider Electric

① [www.pelco.com](http://www.pelco.com)

- Constant, seamless situational awareness
- Multiple immersive PTZ views at VMS
- Zoom in for detail live or retrospectively with client-side dewarping
- Up to 12 Megapixel resolution for better detail at distance
- Up to 12.5 ips at full resolution
- SureVision 2.0 for simultaneous WDR and Low Light performance
- Eight (8) Pelco video analytic behaviors
- ONVIF Profile S and Profile G Conformant





## Model: Surveon NVR3000 Professional RAID NVR Series

By: Surveon Technology Inc.

① [www.surveon.com](http://www.surveon.com)

- Support 4 to 64 channel 1080P recording
- Support up to 8-bay SATA hard disks
- Support RAID 1, 5, 6 for data protection
- Built-in enterprise VMS and real-time video intelligence detection
- Built-in dual display
- Support Surveon Control Center (CMS) and TV wall matrix
- In-house design and production with 2-year warranty
- Designed for megapixel surveillance in SMBs, retail, hospitality, and intelligent buildings



## Model: S2 NetVR 600 Video Management System

By: S2 Security Corporation

① [www.s2sys.com](http://www.s2sys.com)

- Supports up to 32 IP cameras
- Supports up to 32TB of internal video storage; available in RAID 5 configurations
- Delivers real-time and recorded video from a client, web browser or mobile app
- Allows for live video tours and on-screen PTZ controls
- Locates video of interest with a single click and saves it to the case library
- Integrates with S2 Security access control systems for unified system management and administration



## Model: Vi3026

By: **Vigitron, Inc.**

① [www.vigitron.com](http://www.vigitron.com)

- Provides 26 Gb Ethernet ports with 24 PoE plus and 6 SFP ports
- 24 ports at 802.3af PoE and up to 12-ports at 802.3at (30W)
- Two 1Gbps independent uplink and downlink ports allow for full use of all 24-ports
- SNMP for communicating error messaging to local computers
- Automatic IP and PoE connection and reconnection
- Automatic MAC identification for all connected devices
- Individual IP Source Guard for protecting ports
- Supports Jumbo Frames up to 9600 bytes at 100BaseT



## Model: EN-16POE

By: **WatchNET**

① [www.watchnetinc.com](http://www.watchnetinc.com)

- 16 channel NVR with built-in 16 port POE
- Integrator-friendly recorder cuts down on setup and install time and hardware cost
- Provides up to 5MP resolution per channel
- Utilises the most advanced H.264 technology and includes the WatchNET EOS2 user-friendly GUI
- It is able to conform to ONVIF 2.3 NVR and includes free CMS and mobile apps
- Supports Internet Explorer, Firefox, Safari and Chrome web browsers
- Mac and PC OS compatible
- Supports up to 8 internal HDDs and an additional 4 eSATA drives (additional eSATA device required) to allow a maximum of 72TB of long term storage capabilities





## Model: YUC-H7A82

By: Yudor Technology Co, Ltd  
① [www.yudor.com.tw](http://www.yudor.com.tw)



- Quadro Mega Pixel with double Mega Pixel price
- 4 Lows, Low lux, low bandwidth, low noise, and low price
- Push video alert 247, and easy set up P2P QR code.
- Continuous recording in SD card up to 64G
- ONVIF compliant
- External adjust of zoom and focus

## Model: VIVOTEK FD816C-HF2 Fixed Dome Network Camera

By: VIVOTEK  
① [www.vivotek.com](http://www.vivotek.com)

- 2-Megapixel CMOS Sensor
- 30 fps @ 1920 x 1080
- WDR Pro to Provide Extreme Visibility in High Light Contrast Scenes
- Built-in IEEE 802.3af Compliant PoE
- SNV (Supreme Night Visibility)
- 3D Noise Reduction for Low-light Conditions
- Real-time H.264 and MJPEG Compression (Dual Codec)
- Video Rotation for Corridor View



## Model: VBIP-5V, 5 Megapixel IP Infrared (IR) "Bullet" Camera

By: Veilux  
① [www.veilux.net](http://www.veilux.net)

- Full HD IP IR Bullet Camera 1080P
- Day/Night with ICR with 3.3mm~12mm DC Iris Lens
- Industry Standard H.264 with Multi-streams
- Black Light Compensation (BLC)
- Support Motion Detection
- SD For Local Recordings (32GB Max)
- Onvif 2.2(Profile S)
- 2D + 3D Dynamic Noise Reduction (DNR)



## Model: HD Bullet Camera

By: STRATEL SDN BHD

📍 [www.stratel.com.my](http://www.stratel.com.my)

- 1 MP to 30 MP resolutions
- Embedded Adaptive IR & Video Analytics Technology
- H.264 Compression
- LightCatcher Technology
- Multi-Megapixel High-Dynamic-Range Image Display
- Onboard Storage. SDHC & SDXC card compatibility for storage directly on the device
- Avigilon Control Centre 5.0 Software with HDSM



# Security Solutions Today



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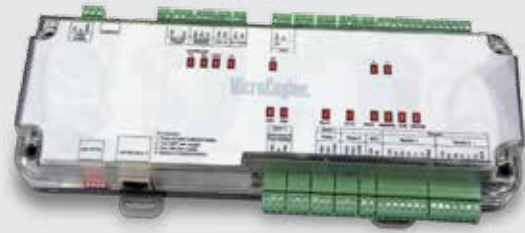


## Model: GLS100 Encrypted IP DesFire 1 Door Controller

By: MicroEngine Technology Sdn Bhd

① [www.microengine.net](http://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: PyronixCloud

By: Pyronix

① [www.pyronix.com](http://www.pyronix.com)

- Users can control their security system, automation outputs, and view live stream video from anywhere in the world through an Android or iOS smart mobile device
- Enforcer 32-WE App: allows users to set and unset the panel, check system status and receive notifications, all from the convenience of a smart mobile device
- Users can connect high security wireless detectors, sensors and sounders all controlled through the HomeControl+ App
- HomeControl+ Cameras: The range consists of both static external and a pan and tilt internal camera, offering remote supervision via real time streaming directly onto the HomeControl+ App
- Secure connection
- Fully encrypted to the AES 256 standard, ensuring safe IP communication between the devices
- No sensitive data stored the system provides piece of mind for the end user and installers.



## Model: TBS 3D-Terminal

By: Touchless Biometric Systems (TBS)

① [www.tbs-biometrics.com](http://www.tbs-biometrics.com)

- Highest security level
- Hygienic for sensitive applications
- Critical Fingerprints
- No Failure-To-Enroll
- Optional RFID, camera, liveness detection
- Easy Integration
- Flexible software infrastructure
- IP Camera Management
- Anti-Tailgate Management
- Language Options



## Model: 1200lbs ECO Series Electro-Magnetic Lock – UL545-SL

By: UWC Electric (M) Sdn. Bhd.

① [www.uwcelectric.com](http://www.uwcelectric.com)

- 1200lbs ECO series EM Lock are eco-friendly designed with power consumption less than 300mA
- Integrated Lock Status Monitoring feature (LSMF)
- Electrolytically coated with a protective oxide film
- Zero Residual Magnetism
- Single Voltage operation – 12Vdc
- Ease of installation with low maintenance & low energy consumption made it become a cost saving product
- This EM Lock operate quietly & care free.





## Model: argus.Slide

By: **Proytec** Security

① [www.proytec.com](http://www.proytec.com)

- High Security access door: Safety glass (P1A up to P5A), mechanical and electronic locking system, interlock functions
- High Reliability: Guaranteed to work during power outage, several operational modes including evacuation mode with automatic door
- Accessibility: Sliding or telescopic door.
- Obstacle detection system
- Aluminum structure
- Double pillar anti-flex anchoring reinforcement
- Anti-crowbar lower rail with self-cleaning system
- Automatic door blockage during intrusion attempts





## Model: D-Tect

By: GJD Manufacturing Ltd

① [www.gjd.co.uk](http://www.gjd.co.uk)

- Ability to connect directly to intruder alarms panels, trigger CCTV recordings and also control outdoor lighting
- Compact, robust and waterproof, aesthetically pleasing housing
- Direction of sensor electronics concealed from the view of a would be intruder
- Programmable range from 10m to 30m, affording excellent perimeter protection
- The adjustable pan and tilt module, along with the sliding curtains, allow the field of view of the detector to be closely matched to camera
- Key sectors for the external D-TECT range include Residential, Commercial, Industrial, Airports, Borders, Military bases and ports



## Model: GSM Communicator G10

By: Trikdis, JSC

<http://www.trikdis.com>

- GSM Communicator G10 is compatible with Paradox, DSC, Caddx, Texecom, Crow, Pyronix and other manufacturer control panels, reading messages directly from control panels DATA BUS
- Using external interfaces C11 or C14 you can connect to any control panel with integrated telephone communicator (TLC port) – it ensures solid communication by three different alarm messages transferring algorithms: PSTN lines plus GSM or GSM plus PSTN lines or all communication via GSM
- Support for three alternative communication modes: GPRS, SMS and DTMF via GSM voice channel
- Module transfers all messages from indicated control panels in Contact ID codes
- Messages are transmitted through GPRS to the main or backup IP addresses – if GPRS connection is lost, messages are sent with SMS messages
- Remote control of output OUT1 status
- Quick and easy configuration via USB, remote configuration, control and update from CMS





## Model: Z10 Tension Sensor

**By: Gallagher**

[www.gallagher.com](http://www.gallagher.com)

- Provides continuous, real-time, wire tension measurement displayed in kg or lb
- Detects both fast and slow attacks and delivers high, and low, wire-tension maintenance alarms
- Generates attack alarms based on single or multi sensors
- Differentiates between environmental changes and attacks
- Has a 7kg to 60kg continuous operating tension range (15 to 130 lb)
- Provides overload protection to 200kg (440lb)
- Enables fast installation using new Pivot Mount Technology as well as plugged and IDC connectors, the Z10 also self-aligns to optimize performance and to allow for variation in mounting angle
- Can be retro-fit to existing Gallagher perimeter security systems and integrates with Gallagher Command Centre software management platform to provide superior fence wire disturbance detection



## Model: AVANTGARDE

**By: SIRCUIT Perimeter Protection Systems**

[www.sircuit.com](http://www.sircuit.com)

- Range up to 200m (Between TX and RX)
- Seamless Integration into existent IP Infrastructure
- Complete remote control and maintenance over IP
- Dual Alarm information IN/OUT
- 5 detection and/or alarm suppression scenarios
- Advanced and unique SW tools for maintenance management



## Model: LCM1000 – 1000W Power Supplies

By: Artesyn Embedded Technologies

① [www.artesyn.com](http://www.artesyn.com)

- 1000 W output power
- Low cost
- 2.5 inches x 5.2 inches x 10.0 inches
- 7.7 Watts per cubic inch
- Industrial/Medical safety
- -40 degree Celsius to 70 degree Celsius with derating
- Optional 5 V @ 2 A housekeeping
- High efficiency: 90 per cent typical



## Model: Christie Entero HB 70 Inch HD Front Access Display Cube

By: Christie Digital Systems USA, Inc.

① [www.christiedigital.com](http://www.christiedigital.com)

- Christie Entero HB is an evolution in performance, reliability and confidence for control room video walls.
- Performance – Leading the progression to higher brightness LED displays, Christie has developed Christie Entero HB
- Control – The Christie Entero HB Series is the first, and only, LED control room display to offer wireless control through Wi-Fi capability
- Flexibility – The Christie Entero HB 70 inch HD front access video wall cube further expands the Entero HB Series of control room display cubes, offering installation flexibility with front-access and a smart airflow design for placement directly against walls, along with resolution and display formats to meet specific room or space requirements
- Maintenance – Designed for zero-maintenance, the Christie Entero HB series is solid-state, has no consumables and no scheduled maintenance for at least 5 years





## Model: CNGE2+2SMS

By: ComNet

① [www.comnet.net](http://www.comnet.net)

- Smallest ring based switch in the market
- Easily set up a ring topology supporting two IP Cameras at each point
- On-unit switches aid setup and eliminate programming
- RSTP Redundancy & Prevents Multicast Network Flooding
- 2 Gbps TX Ports + 2 Gbps SFP Ports
- POE+ Up to 60 W
- Dual media converter or Redundant link
- Avoid high cost of Managed Switches (upto 25% saving on Managed Switch)
- Lifetime Warranty & Made In USA



## Model: Bintelan Analytics Platform

By: Ganetec Global Solutions S.L.

① [www.ganetec.com](http://www.ganetec.com)

- Video Push: The analytics platform is able to analyse real time, recorded video and even the video push functionality from a mobile phone or tablet
- Alarm Manager and Maps: Every alarm generated by Bintelan's analytics module is sent to the Alarm Manager in XProtect Smart Client and each alarm can be located on the map
- Marketing and Business Intelligence tools: The platform offers the possibility to create customised reports through statistics and advanced business intelligence and big data tools to implement various marketing strategies, such as behavior analysis
- More than 45 analytics (3rd party) in one unified interface
- Easy Management: The platform enables ease-of-use of unlimited analytics in one unified interface that is also easy to manage
- The platform can execute different licenses, in several servers, in real time



## Model: EX78900 Series 16-port (8xPoE) Gigabit Ethernet Switch

By: EtherWAN Systems Inc.

① [www.etherwan.com](http://www.etherwan.com)

- Total 16 Gigabit ports
- 8 PoE ports with maximum of 4-port 6-W UPoE support with 240W power budget
- 4 Gigabit SFP ports
- Intelligent management features such as QoS, VLAN and PoE configurations
- Ruggedised DIN-Rail mount housing
- Supports PD with high power consumption such as HD PTZ camera



60W  
PoE

## Model: Covert Pinhole HD Camera (IPC 0122)

By: LILIN

① [www.meritlilin.com](http://www.meritlilin.com)

- 1/2.7" 2.0 Megapixel CMOS
- Records 2MP at 30fps (1920 x 1080)
- Discreet and functional Design
- 3.7mm pinhole lens
- Flexible mounting options
- Perfect for concealed applications
- ONVIF Profile S Compliant



## Model: HIGHWIRE POWERSTAR VHW-HWPS-B

By: Veracity UK Limited

① [www.veracityglobal.com](http://www.veracityglobal.com)

- Re-use existing coax cable for IP cameras
- Eliminate power cabling with POE-over-Coax TM
- Reliably power POE Plus cameras (25watts)
- Instantly check connection and power status with built-in SafeView TM
- Fully automatic - no configuration required
- Simple fast, cost-effective installation
- Full 100Base-T Ethernet performance





## Model: OSDP Networked Controller

By: Rosslare Enterprises Ltd.

① [www.rosslaresecurity.com](http://www.rosslaresecurity.com)

- 4-door (In/Out) networked access controller
- Backbone of medium to high-scale security system
- One onboard expansion slot – further 12-board expansion via OSDP
- Driven by AxTraxNG – powerful, flexible, and easy-to-use software (FOC 64 panels)
- Modular/expandable solution up to 58 doors per panel
- Perfect for commercial and enterprise applications
- AES 128-bit encrypted TCP/IP communication to AxTraxNG server



## Model: SATATYA SAMAS

By: Matrix ComSec

① [www.MatrixComSec.com](http://www.MatrixComSec.com)

- All-in-One centralised management and monitoring
- Video analytics like motion detection, missing object, intrusion detection, view tamper
- Live monitoring on multiple devices simultaneously
- Real-time notification via SMS and Email with Snapshot
- Simultaneous login of multiple users with different user modes like PC, Mobiles, Tablets



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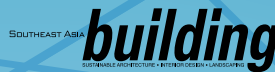


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# CPSE 2015 Encompasses A Coverage Of Extensive Security Platforms

China Public Security Expo (CPSE) was initiated in Shenzhen Special Economic Zone in 1989. During the span of 26 years and 14 CPSE events, we continuously and effortlessly served 8,600 security companies whilst providing hundred of millions business opportunities for 524,000 professional buyers. Today, the biennial event is seen as the world's largest security show and the most authoritative, appealing and influential security show in Asia, and the only BPA certified security exhibition in China.

This year for CPSE 2015, it has already attracted 1500 exhibitors from over 30 countries and 55 of the world's top 500 companies. An expected of 130,000 visitors to be present at the show perusing the latest cutting-edge security products and seizing business opportunities.

Following CPSE 2013's great success, this year the event will once again encompass 110,000 square metres of exhibition space. More than 96 per cent of CPSE 2013's exhibitors have confirmed their participation for this year's show, and amongst them are leading companies such as Bosch, Honeywell, Panasonic, Samsung, Huawei, Sony and many more. They will be showcasing latest products and systems from around the world including the Internet of Things, Cloud Computing, Big Data, Cameras and Surveillance, Intelligent Household, Video Door Phone, Burglar Alarm, Access Monitor, Alarm Service, Access Control, Perimeter Precaution, Parking Management etc.

In addition to the security galore, related fields, such as the fire safety, anti-counterfeit, police equipment, intelligent transport systems, inspection,

counter-terrorism and criminal investigation, network security, Emergency Rescue, Unmanned Aerial Vehicles and others will be making a strong presence at the show as well.

Besides the Expo itself, highlighted events like the CPSE Golden Tripod Awards Ceremony 2015, GSIA Conference and Samsung – the 13th China Public Security Forum will be held in tandem too. With the theme of 'Security+, Open a New Era of Intelligent Security', the forum will be consisting of government management and security technology forums. For this year, the government management forum will be focusing on the smart city issue. The theme of security technology forum is 'Security+, exploring the new form of trans-boundary and fusion', which is strongly connected to the new developing trends of the



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security industry. Organisations like Samsung, Hikvision, Dahua, Netposa and Huahong Intergrated Circuit Co., Ltd have all confirmed to join in sharing their thoughts on the current landscape of the industry during the forum. The forum will be held at 5F Laurel Hall of Shenzhen Convention and Exhibition Centre from 29th to 30th October 2015.

More than just a stage for showcasing products and services, the Organising Committee plans on making these activities a catalyst for exchanging advanced technologies and information. Described as a gate to access to the latest developments and dynamics of the industry and also an activator, which improves the market internationalisation while promoting, trades and exchanges in security industry between the world and China. The Organisers also hopes to make CPSE an integral part of the international arena.

“The CPSE is a platform for us to communicate with others. We are sponsoring this event to demonstrate our advanced security equipment to the world. We feel happy to be able to establish such a professional



communication platform,” said Mr. Kim Sung-sik, General Manager of Tianjin Samsung Electronics Co., Ltd.

Led by ambitious infrastructure development projects like Safe City and the future Smart City programs, China’s security industry achieves a

rapid development, and still contains huge market potential. CPSE 2015 is an ideal place to build and improve international business partnerships and networks.

**For more information, please visit [www.cpse.com.cn](http://www.cpse.com.cn)**

**CPSE 2015**

- Date:** 29th October 2015 to 1st November 2015
- Venue:** Shenzhen Convention & Exhibition Centre, Shenzhen, China
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COMNET EUROPE	3	ISC EAST 2015	95
CPSE 2015	35	JVC KENWOOD	7
DELTA SCIENTIFIC	9	MICROENGINE TECHNOLOGY	11,12
FLIR SYSTEMS	1	MORSE WATCHMANS	47
FSME 2016	19	SAFETY & SECURITY ASIA 2015	101
FUJIFILM	65	SIDEP ELECTRONICS	5
GIGA-TMS	37	STRATEL	17
HID	OBC	TRADE CONNECTION	129
IFSEC INTERNATIONAL 2016	IBC	VIVOTEK	15
IFSEC SEA 2015	59	ZHEJIANG DAHUA	IFC



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