

Securing global trade:

How the latest security and surveillance technology can help keep the wheels of trade and commerce moving

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Let us consider the scale of the issue of securing global trade: Maritime trade represents over 25 per cent of the US gross domestic product (GDP). In the US alone there are some 361 seaports and ships delivering an estimated nine million containers annually, and nearly 200 million passengers travel through ports via cruise ships and ferries every year.

Both ferry and container terminals occupy thousands of acres and many have buildings and operation centres distributed across the site.

Homeland Security, Secretary, Tom Ridge, stated “securing US seaports has been one of the country’s most daunting goals ever since the terrorist attacks of September 11th 2001.”

Expand the US scenario and consider the situation on a global level how many ports, harbours and terminals are at risk and just how easy would it be to cripple the global economy should these be threatened.

Across Europe, both the political and commercial implications of port and terminal security is taken very seriously, finding the balance between Homeland Security and commercial viability is a tough egg to crack, but an issue which UK and European authorities and private operators are tackling head-on.

Whether the concern is immigration, terrorism, contraband, theft, vandalism, arson or trespass, it comes down to the same core requirements: How can we monitor, assess and respond to potential risk? And perhaps more importantly, How much will it cost?

In truth the status-quo option is no longer an option. As legislation and international codes of practice become more stringent, non-compliant operations will be forced to react or cease trading.

Has technology a part to play?

Advancements in security, surveillance and access control technology is revolutionising how security and estate management is being dealt with. Add to this the increase use of IT and telecommunications and a level of software sophistication unthought of five years ago and you will see that the latest systems have a huge role.

Ports, harbours and terminals have very specific requirements; ferry terminals like airports have a people problem – tens of thousand of travellers need to be monitored, processed and directed every day without incident or disruption.

Container terminals have completely different concerns; smuggling, illegal immigration, theft and trespass are major issues on top of the smooth running and efficient transit of cargo.

Finally the port authorities themselves have a huge responsibility from immigration and customs control, through public safety, real estate management, to the duty of care to staff and customers.

Is it possible to bring together all of these disparate requirements and provide a technological solution? Yes, whether we are considering CCTV, barriers, manned guarding, intruder detection, fire or the myriad of other needs. Technology has its place.

Convergence or consolidation

Some describe the utilisation of a common technology as convergence, but I prefer to use the term consolidation – bringing

together disparate and complex practical needs, applying a technological solution and providing a commercial benefit.

The common technology to which I am referring in this case is that of your IT network and the use of standard internet protocol (IP) systems which allow data to be freely shared, processed and reviewed. This data may be sources such as video, voice, access ID, biometric or any of the transactional business data acquired within a commercial operation.

Digital video being transmitted over an IT or IP network is probably the biggest advancement in security and surveillance in the last decade, combined with wireless communications, broadband, low cost storage and the internet and this will revolutionise the way in which security systems are designed and implemented forever.

This is not a pipe dream. Systems are being installed and used on a daily basis throughout the UK and Europe and, as an understanding of the technology permeates into the security sector, so will its acceptance and the associated benefits.

Success stories

Scandlines AG ensures harbour safety with digital video surveillance

“This system is the most modern, and makes it easy to expand our security solution. That is important for us: Now that we have digital surveillance of the harbour terminals, we want to use it on the ferries and integrate it with retail security in the boutiques onboard.” – Vagn Klog, Claims Manager at Scandlines AG

The Client: Scandlines AG is one of the world’s most frequently running shipping companies. With almost 160,000 departures, they annually transport with their ferries circa 20 million passengers, 4 million cars and about 900,000 trucks. They manage 18 ferry routes between harbours in a triangle symbolised by their company logo, marked by the boundaries of Denmark, Germany and Sweden. With a new project called ‘Via Mare Balticum’ (Through the Baltic Sea), the company is now expanding their routes to include new European Union members in the Baltics.

The Challenge: Scandlines has complex needs when it comes to their video surveillance. They have different types of businesses to manage in one organisation: Ferry transport and harbour control with traffic coordination, ticket sales and travel planning, catering in restaurants, and retail sales in boutiques – occurring both in their harbour terminals and on the ships.

The Solution: Their new security solution runs on an open platform using Milestone Systems software with a combination of Samsung and Sanyo colour and black/white network video cameras installed by AC Sikring A/S.

The Benefits: Scandlines has a security system that is future-safe, flexible and scalable, with the ability to add new cameras of their choice anytime – quickly and easily. The solution is installed to prevent terrorism and vandalism, and to provide a safer environment for personnel and passengers. They also use the system for more than just surveillance – it is a work tool for the bridge guards to maintain overviews for better coordination of the ship and traffic arrivals, departures, loading and unloading of cargo.

Bluebird project tightens port security with Number Plate Recognition: Kent's Ports Authority utilise digital video to improve border control

"In these days of heightened security alerts and increased calls for tighter policing of the entry points into Britain, finding more effective ways to control our borders has become a top priority."

Kent Ports Authority

The Client: With some of the country's major ports under their jurisdiction, the Kent Police are in the frontline of this activity. They recently launched 'Project Bluebird' to improve their effectiveness in monitoring vehicles entering the country by sea.

The Challenge: The project is to deploy Automatic Number Plate Recognition (ANPR) at all the Kent ports, and at their corresponding exit ports on the continent.

The Solution: Combined with the Neurodynamics Digital Video Recorder (DVR), to create a highly sophisticated remote surveillance system, the system uses state-of-the-art RAID technology for the utmost flexibility and reliability. It features a 1Gb backplane to give RAID 5 'hot swap/hot standby' capabilities for the highest levels of reliability. It can be expanded to up to 1024 Terabytes and can accommodate input from a virtually unlimited number of cameras.

The Bluebird project features a highly advanced system for automatic storage management of CCTV images. All cameras are set to record continuously for a specified time period. When a suspicious number plate is identified, images recorded pre and post the identification are moved to a separate buffer for a longer storage period. Finally, if the identified plate matches a specific criterion set by the police, it is automatically moved to an off-site archive store. The system also allows for manual archiving and event extending when required. To make the system as easy to use as possible, the DVR controls, enabling video recording, playback and archiving, are fully embedded within the main system user interface.

Partners in this prestigious project were Petards, who provided the user interface, data handling and control software; Civica, who linked the system to the police database; and Tyco Integrated Systems who provided the systems integration.

P&O secures harbour entry in Dover UK with network based camera monitoring solution

"The JVC network cameras provided the perfect solution for our security needs. The success of this project has been due to the co-operation between ourselves and KMH Group," states P&O Ferries.

The Client: P&O is a major international logistics and transport company and the UK's largest ferry operator. It carries passengers and freight to mainland Europe from its primary UK location at Dover. The Dover Harbour terminal is the busiest in the UK. Being just 22 miles from France it is the gateway to Europe, with literally hundreds and thousands of vehicles passing through its portals on a variety of carriers, day and night of each year.

The Challenge: The main security threats for P&O are illegal importing of goods, illegal immigration and fraud. One of P&O's major requirements was the 24-hour remote operation of security cameras, monitoring and viewing of images from any location including high risk areas. However, effective CCTV coverage was

not being achieved with just the existing analogue security system.

The Solution: P&O awarded KMH Group with a contract to upgrade its security system. The new digital IP system had to be able to work alongside the existing analogue system. Eight JVC IP cameras were chosen because of their pan, tilt and zoom functions and extreme reliability and flexibility. They are configured to allow remote viewing and monitoring at a number of locations. The cameras are installed both internally within the travel centre and externally to monitor traffic movements thus giving ample coverage over the main areas of activity. Images are viewed using the JVC multi-camera management software package.

The Benefits: The IP cameras were chosen to give security staff sufficient digital imaging with enhanced video and viewing quality as well as the ability to print images electronically. Being IP network-based the system enables images to be viewed from a variety of locations at any time and amply covers the main risk areas.

The security staff at P&O was fully trained in the new IP system before it was up and running on-line. This initiative has enabled P&O to achieve and successfully maintain high standards within its social responsibility policy.

The future is just around the corner

With terrorism on the increase and the need to tighten up our borders, joined up security is the only answer and networked digital surveillance technology is the solution to problems we don't even know we have yet.

As networked security and surveillance technology becomes more mainstream, and the application and value added use of digital video data becomes more sophisticated, there will inevitably be more and more entrants into the market.

With Europe, and in particular the UK, leading the way in terms of knowledge and understanding of the security needs of both the community and business sectors, it would be fair to expect that the level of take up would be high, however, the UK, like the US, has one of the largest legacy analogue CCTV camera deployment in the world so how can this be reconciled.

As identified by analysts across Europe, hybrid systems that can take advantage of all of the benefits of digital video and IP networked communications and utilise the legacy equipment will be the first step. It is not necessary to have an 'out with the old and in with the new' attitude as this may be both costly and unnecessary.

Finding out more...

The IP UserGroup is a great place to go to take your first steps on what may be considered a daunting journey. As a European based security technology forum, the IP UserGroup is the independent voice of some of the most respected companies in the industry. With a mission to increase understanding and acceptance of IP networked technology across a wide range of security and BMS applications, the group represents some 8,000 members and 70 corporate affiliates.

By visiting www.ipusergroup.com you will be able to acquaint yourself with much that is happening at the forefront of the industry, with white papers, case studies and a wealth of other information this portal is a must for the beginner and guru alike.

ABOUT THE ORGANISATION

The IP UserGroup™ is an independent security technology forum representing a community of individuals who are interested in the development and adoption of Internet Protocol (IP) based products and services for use within networked security and intelligent building applications.

The group is made up of both members and affiliate members from a diverse and complex mix of disciplines and industry sectors including, security, IT & communications, building management and the internet.

ENQUIRIES

For further information register with the IP UserGroup free on our website, subscribe to its sister journal IPfocus or join us at the IIPSEC exhibition and conference – January 24-26 2006, Coventry, UK: www.iipsec.com

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