NUUO Industrial Vertical Solution Guide

Industrial installations certainly represent a major security, safety and operational challenge, with their specialist processes, commercially sensitive information, valuable materials, plant and equipment. To enhance protection, and provide a bigger picture view of these critical facilities, NUUO's Intelligent Surveillance Solutions are being deployed across a wide array of industrial sectors, whether it be automotive, manufacturing, utilities etc.

Researching the Requirements

Focusing on the elements that NUUO believes any industrial security solution should be constructed around, the industrial market's challenges are the following: security and theft prevention by controlling access and managing incidents; quality and process control and video storage; management and remote accessibility.

Creating a Blueprint for Security and Theft Prevention

Given the nature of the processes at most industrial facilities, and the fact that many items held on site are particularly attractive to thieves – metal being a case in point - it is imperative that access control is seamlessly integrated with video surveillance. As a deterrent, and to catch unauthorized individuals, personnel entering or leaving a facility should, ideally, go through a mandatory security check where their ID card can be scanned and video monitoring undertaken.

Downtime Dilemma

Today's industrial facilities are mostly configured as 24 hour, just-in-time, concerns so a pivotal requirement is to keep mission-critical production areas safe and secure all the time. The last thing management wants is an unplanned shut down of a vital product line due to some unpredictable events like a criminal action. Left unchecked this type of downtime can have serious ramifications for order fulfillment, customer satisfaction and result in remedial costs running into millions of dollars.

Video Storage

Considering the scale and complexity of industrial processes, there is often a need for video data to be held for months at a time. For evidential purposes digital watermarking should always be adopted to demonstrate that video data has not been modified. Regular

back-up to iSCSI or other data storage supports, and redundant power systems are also desirable. Given that the relative cost of video storage, attention should be given to space saving features like 'recording on event'.

Remote Control

Looking at specialist industrial applications like semiconductor manufacturing, and other innovative processes, we are seeing automatic robots becoming an integral part of production. Practically, this means that no operators may be near the production area making video surveillance very much an indispensable tool so there are 'virtual' eyes on the ground. In other cases, where potentially dangerous processes are involved lone worker monitoring can be critical for health and safety.

Manufacturing a Solution

Turning to the key benefits which an Intelligent Surveillance Solution from NUUO can produce for industrial facilities:

Working for a Safe and Secure Environment

The way that NUUO's feature-rich NVR/DVR solutions are designed makes them ideally suited to the rigors of industrial applications. The events detections features can justify this statement, like the video analytics support (IVS). NUUO Mainconsole offers IVS support and it is ranging from enter and exit to tamper detection and other. These features can be combined with 10 instant response methods, such as email, SMS and a pop-up E-map. Plus, if the system has the I/O devices installed and when using the function enter and exit and once a motion is detected in a sensitive area, control can be taken of the output device to lock a door. NUUO solutions can even be set-up to alert managers should a 24 hour production line stop.

Seamless Industrial Integration

NUUO Intelligent Surveillance Solutions can be integrated with access control systems - an important consideration for industrial sites. Should someone try to enter with the wrong ID card, an entrance can be closed and security guard alerted via a NUUO solution. When considering larger scale applications, NUUO CMS (Central Management System) is equipped to bring together multiple NVR/DVR servers and centralized alarm management. E-map layers can even be built-up with camera locations and, when a motion or event is detected, the associated live video presented.

From Central Monitoring to Efficient Management

Industrial facilities contain a vast array of cameras and NVR/DVR servers so it is imperative that security guards can call-up the right camera views when and where they want. NUUO's Remote Live Viewer supports remote viewing of live video. A step-up is NUUO CMS adding

central alarm handling and central matrix video wall display. Beyond this, NUUO Titan NVR supports the management of multiple Titan servers and offers the feature, 'Image Fusion Technology', where multiple camera views can be stitched together to form a consecutive view.

Undoubtedly, NUUO's solutions are leading edge in the way they identify and act on what is happening, thanks to features like the video analytics and the instant alerts. The process of security staff finding specific video is also enhanced with the Smart Search function.

A Vision for Business Expansion

NUUO's solutions are readily scalable to cope with rapidly changing industrial sites. When there is a need to support new cameras all that is required is the purchase of additional IP licenses (or DVR cards) or/ and the installation of a new server if need be. It really is a straightforward process to integrate new NUUO Mainconsole and Titan NVR as part of the same overall surveillance infrastructure.

Data Safety and Efficient Storage

Where data is being stored for evidential purposes at industrial facilities, NUUO's solutions are well equipped to do this securely and to demonstrate the integrity of what is being held. In terms of storage, NUUO Mainconsole can back-up to iSCSI, and Titan NVR (NT-8040RP) has a redundant power system to cope during a power outage. Alongside this, NUUO offers a digital watermark feature when video is recorded plus a verification tool to check if the exported video is the original data. The ability to efficiently store data, and save storage space, is built-in to NUUO's solutions with selectable recording modes. And enabling the 'on motion' and 'event recording' option means that NUUO recording servers can only records when an event or motion is happening or detected. With NUUO Mainconsole the 'boosting recording' feature ensures during an event that the FPS and resolution recorded by the server is higher. For less important video channels it is even possible to decrease the recorded resolution compared to the live view.

Product Performance

Faced with the testing conditions of today's industrial facilities, where there is a pressing need to keep a watchful eye on processes, goods and people, NUUO is well positioned to offer capable, and flexible, product solutions. NUUO Mainconsole, for instance, is ideally suited to smaller to medium size industrial deployments and on a larger scale can be combined with the powerful NUUO CMS. At this level, where high resolution and FPS live monitoring and recording is a major focus, then NUUO Titan NVR has proven its ability to deliver a state-of-the-art video surveillance capability.