NUUO Transportation Vertical Solution Guide

Under all types of sizes and requirements such as to monitor bus terminals, airports, depots etc., NUUO Intelligent Surveillance Solutions are ideally suited to the security demands of fast paced transportation hubs. Indeed, NUUO has the answer to protect passengers, staff, cargo, and critical infrastructure against any types of threat, criminal or terrorist attack and to aid effective incident management and evidence gathering.

Gearing for the Challenges

As for NUUO, preventing, detecting and responding instantly to incidents and offering central monitoring to economical video data storage, are the major challenges of the transportation market.

Passengers and Infrastructure Protection

Great care needs to be taken in the choice of the right video surveillance systems to meet the challenging requirements since the scope of transportation operations is large. Indeed this market is gathering thousands of passengers and tons of cargo flow through facilities on a daily basis. Therefore passengers and infrastructure protection is the main concern for all operators of this field.

A Connected Approach to Incident Management

There is certainly a growing recognition within transportation circles that human operators should not be solely responsible for incident detection. Consequently, we are seeing the roll-out of intelligent surveillance systems offering rapid responses and instant notifications to control room personnel. In the main, the systems rely on sophisticated video analytics such as people counting or on access control from the 3rd Party Integration and also on an efficient view management etc. Techniques employed to alert operators may range from send an email to pop-up E-maps spotlighting an incident's location.

From Central Monitoring to Data Safety and Storage

With transportation installations that typically comprise multiple cameras and NVR/DVR servers, it is imperative that security guards can view cameras, when and where they want,

and central monitoring need to be supported. For evidential purposes, digital watermarking should be adopted to demonstrate that video data has not been modified. Where video data and system logs are held, secure data storage is a prerequisite. Regular back-up to iSCSI and other data storage supports, and redundant power systems are also desirable. In light of the cost of video storage and the prodigious quantities produced by transportation projects - which tend to favor megapixel resolution and recording rates above 20 FPS - attention must be given to space friendly features like 'recording on event'.

On Track for Surveillance Benefits

Turning to the key benefits which an Intelligent Surveillance Solution from NUUO can readily deliver for transport operators:

A Safe Transportation Environment

The popularity of NUUO Mainconsole for transportation is attributed, in part, to the efficient events management which includes instants alarms and actions. Indeed, this recording server supports the video analytics feature (IVS) such as people counting, presence filter, direction, tailgating, stopping etc. When an event is detected by one of the IVS features, 10 different instant responses can be chosen as an action to prevent or/and to resolve the current situation. Alongside this, the I/O devices, and the 3rd Party Integration features via the LPR (License Plate Recognition) and access control systems, are also valuable to enhance the efficiency of the monitoring.

Driving Coverage

NUUO's solutions ensure that security guards have the best view of the action with multiple camera angles in one user-friendly interface. From NUUO Mainconsole and NUUO NVRmini 2, the duplication of high resolution megapixel cameras into different channels is also advantageous. Besides, in more complex transportation environments, NUUO Titan NVR which is a high-megapixel recording server with its NuClient Software and its 'Image Fusion Technology' feature - combine up to 10 cameras to form a single view – is an ideal choice. For large scale live video display (video from NUUO Mainconsole & NUUO NVRmini 2), the centralized matrix wall from NUUO CMS (Central Management System), can be brought into play.

Moving Ahead with Efficient Management

The common design concept that NUUO Mainconsole Family adopts means that transportation staff can move seamlessly from one solution to another without necessitating a major learning curve. For incident management, NUUO Remote Live Viewer allows a remote live view of the video as well as monitoring. A step-up is NUUO CMS which adds central alarm handling and video wall display. Beyond this, NuClient software from NUUO Titan NVR centralizes the management of multiple Titan servers. NUUO's solutions certainly score highly on the ability to identify what is happening and take action thanks to

the various features like the video analytics and instant alerts from NUUO Mainconsole. In addition, NUUO CMS can display live event video from multiple servers, on a matrix wall. The process of security staff finding specific video is enhanced with NUUO Smart Search which can use metadata to search for footage.

Data Safety

When transportation users are holding data for evidential purposes they need to be able to do this as securely as possible and prove that it has not been altered in any way. NUUO's solutions are well equipped in each of these areas. In terms of storage the compact NVRmini 2, for example, supports a number of RAID levels; NUUO Mainconsole can be scheduled to back-up to iSCSI; and NUUO Titan NVR (NT-8040RP) - with its redundant power system - is designed to cope during a power outage. Alongside this, NUUO offers a digital watermark when video is recorded plus a verification tool to check the authenticity of the exported video.

Packaging Data Storage

The ability to efficiently store data, and save storage space, is built-in to NUUO's solutions with the potential to select distinct recording modes depending on the transportation user's needs. These range from 'always record' to 'on motion' and 'event recording' modes. The advantage of enabling the 'on motion' and 'event' option is the server, only records when something is actually happening. The 'boosting recording' mode from NUUO Mainconsole, ensures that during an event the FPS and resolution are higher. For less important video channels it is even possible to decrease the recorded resolution compared to the live view.

Delivering a Return on Investment

Given the extensive nature of transportation hubs (e.g. train stations, airport terminals etc.) and budgetary pressures there is a strong desire amongst operators to upgrade to IP solution but at the same time, they are willing to keep their older system (CCTV cameras etc.). In that case, NUUO Mainconsole offers the Hybrid and Tri-Brid solutions to meet this need, with a single server able to support up to 64 video channels. Future expansion can be supported through the simple addition of an IP license or new DVR card.

Plotting the Right Course

In conclusion, the transportation market customers looking to enhance Intelligent Video Surveillance capabilities can make their choices between NUUO Mainconsole Family and NUUO Crystal Family. NUUO Mainconsole Family includes: NVRmini 2 which is appropriate to smaller installations, then NUUO Mainconsole is ideally suited to bigger sized deployments and on a larger scale, both recording servers can be combined with the powerful NUUO CMS. At this level, where high resolution for monitoring and recording is required, NUUO Titan NVR has proven to be the ideal ticket to video surveillance success.