

## **INTRUDER DETECTION TO ALARM MANAGEMENT – NICE SYSTEMS HAS IT COVERED**

**Implementing a robust, cost-effective remote perimeter security solution and alarm management system was the challenge facing a leading North American utility company.**

Confidence in its existing intruder alert system had been undermined following an increase in the number of false alarms at its four sites. As a key provider of power in North America the company had to manually verify each alarm, which meant security personnel traveling up to 20 miles to the furthest site.

This inefficient usage of security resources, coupled with a loss of confidence in the effectiveness of the system, led the company to look at implementing a new intrusion detection solution, one that would not just replace the existing technology but also enhance its security provision.

It asked NICE Systems to conduct a security audit of the four sites taking into account both perimeter security (exterior fencing, exterior lighting, sight lines, exterior doors, etc.) and the environmental conditions that affected the standard intrusion detection system already in place. Using this approach, NICE scoped out a system that would meet all of its criteria:

- To identify real intrusions from the nuisance alarms caused by weather conditions, stray animals and other factors.
- To enhance the CCTV security provision at the four sites allowing better deployment of security staff and more effective use of resources.

The sites currently monitored were located a number of miles away from the control room.

Because of the geographical issue, it was important that any CCTV system had efficient networking capabilities to cope with different network conditions and storage requirements.

Initially, NICE considered two options, the 'standard' implementation, where intrusion detection and recording were done separately, and an approach where intrusion detection and recording were performed on the same platform.

After a thorough examination of the site, the second option emerged as the clear choice for a number of reasons. Firstly, to deliver instant verification and scenario reconstruction (which was a pre-requisite due to the number of false alarms) recording and analysis had to be performed on the same platform.

Secondly, with content analysis performed before compression, it could expect a much more reliable analysis of the video signal with analysis at the highest quality possible, practically direct from the camera signal. Option one would mean analysing the video after compression (and decompressed for the analysis) resulting in poorer image quality and, more importantly, less effective content analysis and auto threat detection.

Put simply, unlike the incumbent intrusion detection system, NICE Systems' NiceVision solution would immediately alert security personnel to potential threats. The moments leading up to an alert would be automatically replayed allowing staff to intuitively investigate the incident, understand its context and cause and, more importantly, decide what action to take.

However, an overhaul of the utility company's intrusion detection system was only half of the requirement. Post 9/11, companies and installations with a critical role within a nation's infrastructure (such as power providers) need to have both intrusion detection and alarm management systems.

The NiceVision solution allows security teams to effectively manage the real-time alerts received from the intrusion detection system. Rather than polling random monitors to catch security breaches, security personnel receive a 'pop-up' on screen the moment an intrusion is detected. Staff can then click on the screen to see the events that led up to the alert from both the camera that had intelligently analysed the security breach and all neighbouring cameras.

NiceVision enables the staff to instantly investigate the incident, by clicking on the suspicious objects to understand how they came into the scene. This brings up even earlier CCTV images allowing staff to assess the entire situation from its very beginning e.g. the moment an intruder was first captured near the potential intrusion etc. Guards can now make an informed decision on whether the intrusion is real or a false alarm.

This is only the first level of the NiceVision alarm management system. Following the alert and subsequent real-time review of the incident, staff are asked to "acknowledge" or "ignore" the alarm, based what they have seen. A to-do list then appears for security staff to complete.

The list is tailored to the specific alarm and subsequent action. For example, a list may appear related to an acknowledged alert on the north perimeter fence of a site, actions on the list would include:

- Turn siren on
- Turn flash lights on
- Dispatch guards in the northern station
- Record conclusions

Once one of the guards handles the alarm, by either acknowledging, ignoring or deleting the alarm, all other guards on the shift are notified that this intrusion is being taken care of. They then complete the to-do list making sure each action is covered off.

While the handling of the security breach is being taken care of, the NiceVision alarm management system saves each action performed to the system, for review by the security supervisors. This proactive management and assessment of each alarm (and how staff respond to them) has enabled the company to assess the efficiency of its security procedures allowing it to improve how it reacts to future alerts and incidents.

To ensure its security personnel were comfortable with the NiceVision system, NICE conducted intensive on-site training, focusing on how to use the system to differentiate between real and false threats. In addition, as part of its contract with the customer, once the new system went on-line, NICE monitored the numbers of false alarms over a 105-day period.

The results showed that the numbers of false alarms dramatically decreased. The increase in performance of its security staff led the utility company to extend the NiceVision solution to other sites throughout the State.

By taking a 360-degree approach to security and looking at both intrusion detection and alarm management, NICE Systems developed a complete solution utilising all aspects of modern CCTV technology:

- Video Recording
- Video Analysis
- Video Networking
- Alarm Management

By implementing a digital video solution that contained all four elements, a leading North America energy provider massively improved its perimeter security and the effectiveness of its security personnel.