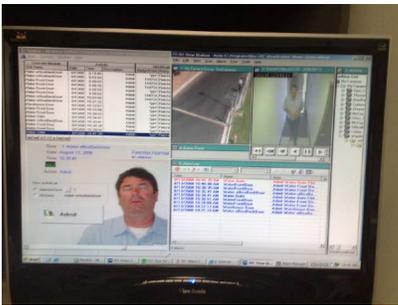# Access Control with Video

Heightened security concerns at critical and remote municipal facilities have created a need for more secure access control to these locations. Traditional gate and access control systems are no longer sufficient. Users now want video confirmation and event recording at these facility access points. IVC's software-based video surveillance systems provide tools for easy integration with access control systems. This application note describes how the City of Simi Valley, California, uses IVC camera systems and Isonas access control systems to secure a water treatment facility.

The objective was to allow security personnel at the plant to easily control the access to different doors at the facility through a single live video interface. Video confirmation adds a higher level of security and ensures that only authorized personnel are using the premises. It also provides the advantage of registering and viewing unauthorized access attempts.

IVC View Station software and its Alarm Server module facilitated the integration of 11 fixed and PTZ cameras with the Isonas access control system. The fact that the Isonas system is IP-based negated the need for any special hardware integration. All that was necessary was to program the IVC Alarm Server to listen for TCP messages from the Isonas system on the facility's network and respond accordingly. Alarm messages from the Isonas system are initiated when the system detects an authorized or unauthorized access activity or if the system senses tampering of the card reader or keypad. Once an Isonas

alarm message is parsed, the View Station logs the alarm, identifies the source (which door), and notes the date, time, the individual's name, and badge ID number.

Once the entry has been received, the View Station can be configured to respond in a number of ways, such as switching the live feed to a specified camera, recording video, sending emails, or triggering external devices. Thus, the monitoring view at the View Station could be set up to track all personnel with live and stored video from the different access entries.

View Station view showing alarm log, live video of facility entry point, and personnel information from Isonas database.

Access Control with Video

At the Simi Valley facility, most of the outdoor PTZ cameras are connected to a 5.8Ghz point-to-multipoint wireless network. As bandwidth is limited across this wireless network, the system utilizes a key feature of the IVC Relay Server software. The Relay Server's bandwidth management functions are used so that cameras only use bandwidth when instructed by the Alarm Server to execute presets, record, or present live video feeds on the screen. This conserves the wireless bandwidth which is shared by the facility's SCADA system.

Outdoor IVC PTZ camera and wireless radio mounted on tower to monitor building and facility access and parking lot.

Video archiving of access control events is also highly valued in these applications. Through the IVC View Station interface, the cameras are configured to only record video based on the granted access at a particular door, thus dramatically reducing the disk space used by the video. Efficient use of disk space translates to less maintenance for the system overall.

Since the IVC Relay Server and Alarm Server software packages are true enterprise server applications, they are able to be run as services. In the case of power interruption and the need to reboot the PC, the IVC software boots up automatically without the need of operator intervention ensuring smooth operation of the system.

Isonas proximity card reader at facility gate.

The combination of access controls and IP video into a single platform not only optimizes security and efficiency during operations but it also minimizes costs of hardware, maintenance, training of security personnel. With this platform in place, it can be easily expanded to create a complete IP-based security and process monitoring system. Perimeter security devices, motion detectors, and/or additional cameras for monitoring key operations can now be quickly added to the infrastructure and managed by the IVC software. The IVC Alarm Server could also be programmed to listen for and parse alarm messages from the site's SCADA system. Conversely, APIs provided with the IVC Relay Server provide a mechanism to incorporate video into SCADA control screens. In any case, IVC provides the tools to easily create and manage a comprehensive system.

About IVC

Based in Newton, MA, IVC delivers a broad range of quality IP-based video systems to industrial, commercial and military applications. Their standards-based software, which delivers quality video to PCs and other client devices over a network, is designed to be scalable and easily integrate with third party software. A key strength of IVC is its ability to develop cameras, enclosures, and software to meet demanding customer requirements.