Video Puts Faces to Names, Heightens RFID Visibility

ComCam and AAID Security Solutions' platform combines active RFID technology, surveillance cameras and facial or license plate recognition software.

By Mary Catherine O'Connor

Feb. 9, 2007—When it comes to security, single tools such as door locks or security cameras don't cut it anymore. To achieve the level of security many businesses and organizations require, multiple tools are often combined and networked together with sensors designed to trigger alerts if, for example, they detect movement near a doorway. ComCam, a West Chester, Pa., provider of video-based surveillance systems, has partnered with AAID Security Solutions, a Peachtree, Ga., RFID systems integrator, to develop a platform called RFID Video Verification. This platform combines active RFID technology, surveillance cameras and facial or license plate recognition software.

The system is based on a ComCam device called the MicroServer, which can control up to four video cameras and an RFID interrogator. To verify the identity of a person entering a building with an RFID-enabled personnel badge, the MicroServer collects the badge's ID and captures a number of images of that person walking into the facility. The MicroServer sends this data to back-end software, which pulls a previously stored image of the person and accesses facial recognition software to compare the stored image with those captured by the camera. If the images do not match, the software sends an alert to security guards.

Last fall, American Barcode and RFID announced a similar system, Tetragate, using software from RFID systems integrator epcSolutions (see New Approach to RFID-Powered Building Security). But while Tetragate uses passive 915 MHz tags, RFID Video Verification utilizes active 433 MHz tags from Wavetrend. Moreover, it has been architected for visually tracking assets, as well as people, and for associating asset tags with personnel tags to connect assets with the people carrying them. It then verifies its findings through video tracking.

ComCam CEO Don Gilbreath says a Fortune 100 company will be the first to deploy the RFID Video Verification system to verify the identity of a small group of executives and the tagged assets they carry into a high-security area on the corporation's campus. The DC Water and Sewer Authority also soon plans to begin testing the system to track backhoes and other high-value assets as they are removed from and returned to the DC Water and Sewer storage facilities. Instead of combining asset tag IDs with personnel badges and facial scans, however, the MicroServer device will send asset-tag data and images of license plates on trucks transporting the equipment. ComCam will then use license plate recognition software to determine with which vehicle to associate the assets.

Eventually, the utility may also use facial recognition tools. It currently employs ID badges containing passive low-frequency RFID tags, however, so these would need to be swapped out for badges with longer-range tags. Wayne Steeves, an RFID systems integrator working with DC Water and Sewer, says the utility is making a significant investment in its security systems to address homeland security concerns resulting from the large

number of hazardous chemicals at its facilities, as well as its control over the District of Columbia's water system.

RELATED_ARTICLES According to Gilbreath, most companies would be able to deploy the RFID Video Verification system without making any significant changes to existing surveillance camera networks. Personnel badges with active tags cost significantly more than those with passive tags. Still, Gilbreath says, for many high-security buildings or areas, companies can justify the higher price because active tags are readable from a greater distance and not as susceptible to RF interference.

The RFID Video Verification starter kit contains an RFID interrogator, a small number of tags, the ComCam MicroServer and software including facial or license plate recognition software. It is available for $5,000 to $6,000, depending on the software configuration necessary.

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