CASE STUDY
STATE PRISON UPGRADES
PERIMETER SECURITY WITH ANIXTER

Customer Challenge
A midwestern state's department of corrections oversees more than 30 facilities that serve 8,000 adult prisoners. With nearly 7,500 workers, the department has set its goals on increasing public safety while reducing prisoner recidivism. As part of an initiative to improve security at all of its facilities, the department enacted a program to enhance its perimeter security systems.

Prone to lightning strike disturbances, the department's existing system was not performing to expectations. Its perimeter security relied on a microwave detection system that was becoming obsolete and was costly to maintain. The department wanted to install a new system that could monitor the complete perimeter without gaps and give particular attention to above-ground barriers and tunnel attempts underneath existing fences. The system needed to operate 24x7 while maintaining direct watch over the buildings and providing the capabilities to monitor the surrounding perimeter.

Before rolling out a new system to all of the facilities statewide, the department decided to test pilot a system at one facility. The department had a nine-month period to design, install and test the system before recommending it for a statewide rollout. In addition to employing state-of-the-art technology, the system had to be flexible enough to be monitored centrally by the facility's security staff and had to possess enough intelligence to differentiate between humans and wildlife. The system also had to be simple enough to be installed and maintained by trained, but nontechnical, personnel.

Seeking expertise in the latest physical security products, decision makers from the department attended Anixter's Perimeter Security seminar. After learning about the various best practices and technologies involved, the agency sought Anixter's assistance with its product and technology choices for its perimeter security installation at its pilot facility.

Anixter Solution
At Anixter's Perimeter Security seminar, technical experts identified vulnerabilities, defined goals and analyzed the latest technologies for protecting a critical infrastructure. By highlighting current regulatory policies within the security industry, specific challenges faced by security personnel, and the various technologies that can address these challenges, the seminar provided prison officials with the basics for developing a perimeter security solution.
Anixter built on the information it presented at its seminar by inviting security system manufacturers to meet with prison officials. With a deep understanding of IT and telecommunications standards as well as technical knowledge of complete systems for surveillance and access control, Anixter was able to walk the prison officials through the latest technologies and best practices for securing a correctional facility.

Anixter worked with the director of the physical plant, who had responsibility for the installation and maintenance of the security system, in selecting the best products and technologies for the installation. After several discussion with Anixter’s salespeople, a fiber optic detection system that provided “smart” digital signal processors to automatically compensate for disturbances was selected. Anixter’s technical experts also suggested using buried optical fibers attached to a perimeter fence. By using these point-locating optical fibers, the system senses minute vibrations along the perimeter fencing and relays the data across the IP network.

With a Priority Level 1 designation from the U.S. Air Force, the detection system is unaffected by electromagnetic interference, lightning or proximity to electrical cables. In a rural area, this provided the high level of dependability the prison need to avoid false alarms. The system also provided the required capability of distinguishing between human or wildlife activity.

During the technology discussions, Anixter explained the benefits of using an IP-based system to provide more flexibility and scalability throughout the facility. Instead of routing video to a central location that can only be recorded and reviewed, the IP system suggested by Anixter allowed a user to access the surveillance cameras remotely. Additionally, the cameras themselves no longer required separate cabling runs, as they could easily be integrated into the existing network cabling architecture.

**Project Results**

After installing the system, prison officials immediately realized the benefits of the fiber optic detection system and IP-based surveillance system. The system monitors the complete perimeter continuously and automatically identifies the exact location when it detects unauthorized movement above ground or underground. The entire perimeter of the prison is constantly protected and only one person is needed to monitor the entire system. The system was installed in less than 90 days, meeting the customer’s need for a reduced installation schedule. Following the pilot program, more facilities have been surveyed in anticipation that the system will be installed at selected prisons throughout the state.

**Technical Expertise**

Anixter’s national network of highly trained security specialists, Technology Solutions Group, is supported by 2,700 salespeople in North America. They are ready to help you make informed decisions about the product offerings available in today’s rapidly changing security marketplace. Anixter works to accommodate your needs and requirements, allowing you to focus on your core competency.

Anixter has a variety of resources dedicated to keeping its customers current on the latest products, applications, standards and emerging technologies:

- Anixter Infrastructure Solutions Lab™ with end-to-end testing and performance reports
- Compatibility testing to confirm interoperability of products
- Technical knowledge of complete systems for surveillance and access control
- Deep understanding of IT and telecommunications standards
- Technical support with regional security managers and local networking and security experts
- Training and educational opportunities through Anixter University™
- Technical Committee Chair at ONVIF to keep abreast of the latest developments and provide input into ONVIF specifications