

Case Study

# **VA Hospital Secure Network**

### **Summary**

The Northern Arizona Veterans Administration Facility is the 3rd largest VA facility in Arizona, occupying a historic building that served as a fort from 1863 until it was transferred to the Public Health Service in 1922. Cable Links Construction Group, Inc. of Fresno, CA was tasked with installing a campus-wide fiber optic network to support the VA facility's growing demand of voice and data requirements. During the installation of the fiber optic cable through tunnels and existing buildings, it was critical that the historic nature of the buildings and campus was preserved. Ultimately, the main objective was to develop a fiber optic backbone with a capacity to support the increased demand to adapt to an ever-growing digital era to support our veterans.



Based on HIPAA requirements and other Federal Regulations, the customer also specified that all data such as patient records, billing information, etc. would be protected.

## Marketplace Challenge

At the VA, there is an on-going requirement to convert paper medical records to digital patient care management systems. Other industry trends include the use of digital radiography and imagery, VOIP, life safety and emergency notification systems, wireless access points, mobile devices and the use of various other technologies. As a result, the demand is growing for health care centers to implement a data infrastructure suitable to improve patient care and back office efficiencies. As these new technologies are implemented, it is important to maintain a high level of security to protect patient privacy in compliance with HIPAA and other Federal Regulations.

# **Customer Challenge**

During the construction phase in any hospital or medical facility environment, the highest priority is to protect the safety of patients, hospital employees, and visitors at all times while the contractor performs the work. Extra precautions are necessary to make sure that contractors have qualified staff trained to support hospital-specific issues such as infection control and compliance with OSHA requirements.

The Northern Arizona VA Facility is a historic campus environment and it was necessary that construction take place in sensitive locations in order to preserve the existing architecture and historic building characteristics. The



construction plan was to utilize existing distribution pathways using steam tunnels and underground conduit in which the fiber optic cables were vulnerable to high heat and rodent damage.



### Solution

To address environmental conditions that included high heat, moisture and protection against rodents, multi-strand fiber optic cable was chosen for the data transport infrastructure. The solution specified by the client also included the utilization of available fiber strands connected to the Fiber SenSys Model FD525R™ Fiber-Optic Intrusion Detection System (shown). This solution was employed to detect physical tampering of the cable and equipment. The Fiber SenSys, Inc. (FSI) Alarm Processor Units (APUs) were tuned and calibrated by Cable Links to match the specific environment and then directly integrated into the campus's existing security system for full time monitoring.



Cable Links Construction Group partnered with the VA Engineering staff to implement 24-strand and 48-strand FSI Armored and Alarmed Backbone cable to create a secure, state of the art IT communications infrastructure. With the FSI APUs connected to the alarm fiber within the multi-strand cable, the backbone cable was physically protected.

### **Results**

As a result of this successful installation, the Northern Arizona VA Medical Center has a data infrastructure system with the capacity to handle the growing demand of health care technology far beyond the 5 year mark as established through the cost/benefit analysis in this engagement. Additionally, the system is physically secure and provides notification of possible intrusions or tampering as it protects the integrity of patient and staff communications.

This protected communications infrastructure will give the VA Hospital the ability to secure and protect all signal transmission between buildings, and protect the system wide IT, fire and security systems from accidental or intentional physical intrusions.

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Cable Links Construction Group, Inc. is a Service Disabled Veteran Owned, 8(a) certified small business and a fully certified Fiber SenSys, Inc. systems integrator.

Fiber SenSys, Inc. is the market leading manufacturer of fiber-optic intrusion detection systems for outdoor perimeter security, federal market secure networks and pipeline security and safety. With corporate headquarters in Hillsboro, Oregon, a short distance from downtown Portland, the FSI organization is comprised of dedicated and enthusiastic security industry professionals.

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