



Innovative Solutions  
Power Utility Security





## Security Challenges for Power Utilities

Power utilities face a variety of security challenges. From securing local substations to controlling access to remote gates and doors, finding the appropriate security system is of utmost importance. Securing remote locations and padlocked gates can be challenging due to the lack of power supply at these sites. Additionally, U.S. power utilities are required to meet NERC/CIP standards for physical security.

The CyberLock system is tailor made for power utilities. This robust system allows power utilities to track and control access to critical infrastructure, without hardwiring.



### CyberLock Provides Utilities with a System that:

- Is cost effective and practical
- Manages access to protected critical assets
- Denies access by default
- Records physical access attempts
- Manages physical access to facility perimeter
- Controls access for authorized personnel
- Provides a secondary physical access control solution

# CyberLock Features



## Remote Access Control

CyberKey smart keys provide all the power to the lock cylinder; therefore there is no need for hardwiring, making CyberLock the ideal solution for remote locations.



## Physical Security

Unlike mechanical locks, CyberLock cylinders have a unique, sealed design that negates standard lock picking techniques. Additionally, CyberLock cylinders are designed to withstand a variety of harsh conditions while maintaining security, making them the ideal solution for outdoor applications. CyberLock padlocks are IP68 rated.



## Control and Schedule Access

Using the CyberAudit Management software, permissions for each lock and key can be changed effortlessly, enabling immediate and precise control over access to all entry points. CyberKey smart keys are programmed with a schedule to open one, several, or all locks in the system within a designated time frame.



## Increase Accountability

Every time a CyberKey meets a CyberLock, a time-stamped access record is stored in both the lock and the key, providing system administrators with full visibility of all access attempts, whether successful or not.



## Key Control

When a key is lost or stolen, CyberLock cylinders can be programmed to deny access to the lost or stolen key. Additionally, CyberKey smart keys can be scheduled with an expiration date. This means when the key expires it will deny access until communication occurs between the key and the CyberAudit software.



## Eliminate Duplication Concerns

CyberLock employs unique access codes that electronically bind both the cylinder and key to one system, meaning CyberKey smart keys are not susceptible to mechanical duplication like traditional master keys.



## Easy Installation

Over 380 CyberLock cylinders have been designed to retrofit into a variety of access points, including doors, cabinets, gates and more. CyberLock cylinders retrofit directly into existing hardware, making installation quick and seamless.

# ITC Holdings



## **Challenge: Restricting and Auditing Access to Cyber Asset Locations**

Headquartered in Novi, Michigan, ITC Holdings, Inc. is the nation's largest independent electric transmission company serving an area of nearly 80,000 square miles in five states. ITC operates overhead and underground transmission lines that carry electric power to more than 13 million people.

Concerned about vandalism, theft, and the potential for domestic or international acts of terrorism, ITC has taken extraordinary steps to secure their physical assets in order to maintain the reliability of their bulk electric system.

Robert Blickensdorf, ITC Security Manager, says, "We needed a system that would eliminate the risks associated with the duplication of keys and assist us with Critical Infrastructure Protection (CIP) compliance by tracking contractors and employees that go into locations that contain critical cyber assets." ITC wanted to know where each key had been used, how it had been used, and by whom. They were looking for a product that could be integrated with the sophisticated security equipment and systems they already had in place.

## **Solution: CyberLock**

After thorough research, ITC chose to implement the CyberLock system. They proceeded to install CyberLocks on their TMedic boxes, RTU cabinets, control-house doors, gates, and on other facilities. "The physical cyber assets we are protecting with CyberLock are critical under CIP standards," says Blickensdorf.

CyberLock allows ITC to restrict and audit access to their cyber asset locations. ITC has issued electronic keys to their contractors and employees in the field that need access to substations and other sensitive areas. ITC programs each person's key with the access privileges they need to do their job. The locks and keys record events so they can track people that come and go at the different sites. "CyberLock has eliminated issues we experienced in the past with key duplication," says Blickensdorf. Each key is set with an automatic expiration to reduce the risk from lost keys. If a key is missing, ITC can quickly deactivate the key or let the key automatically expire. "Overall, I could not be more satisfied with the CyberLock system," adds Blickensdorf.

# How it Works: A Simple Step-by-Step Process

## Step 1

Replace existing mechanical cylinders or padlocks with a programmed CyberLock cylinder. Each CyberLock is an electronic version of a standard mechanical lock cylinder. Installation is as simple as removing the original cylinder and replacing it with a CyberLock cylinder. Installation requires neither wiring nor batteries, making it quick and easy.



## Step 2

Assign a CyberKey to a user. Keys are programmed with access privileges for each user. A standard key holds a list of locks the user may open, with a schedule of days and times when access is allowed. For instance, the key can be programmed to allow access from 8 A.M. to 6 P.M. on weekdays and 10 A.M. to 4 P.M. on Saturdays. It can also be programmed to expire on a specific date at a specific time for increased security.



## Step 3

Access locks. When a CyberKey meets a CyberLock, the cylinder is energized and an information exchange occurs to determine if the key has access to that specific cylinder. The event and time is stored in both the lock and key. Lock cylinders and keys also record when an unauthorized attempt to open a lock occurred.



## Step 4

Download audit trails and update keys via communicator devices. Expiring keys regularly ensures users frequently update their keys. When validating keys, the system downloads the audit trail and uploads new access privileges to the key. An expired key will not work until it is updated.

## Step 5

View audit trail. The CyberLock system is managed centrally through CyberAudit software. Customized audit reports and notifications on suspicious activities can be automatically generated via email.



CyberLock, Inc. is the leading supplier of key-centric access control systems. It is part of the Videx family of companies with roots dating back to 2000 when the first CyberLock branded electronic locks and smart keys were introduced to the market.

Videx, Inc. has been designing and manufacturing innovative electronics since the company was founded in Corvallis, Oregon in 1979. Early products included display enhancement modules for Apple computers. In 1985, Videx entered the data collection industry with its first portable bar code scanner. Over the years, additional data collectors have been introduced, utilizing touch memory button and RFID tag technologies.

In 2013 CyberLock, Inc. was spun off as an independent company but maintains strong ties to Videx. The two companies continue to collaborate on future innovations.

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