

Electronic Access Controls on Historic Buildings: Hager Companies HQ

by Ginny Powell

Historic buildings pose a unique security challenge. By their very nature they are outdated - from the original materials to antique hardware, they exist to showcase just how different things used to be. However, progress has often happened for a reason, and one of the leading reasons is security.

Antique door hardware may have been built to last, manufactured from heavy-duty metals, but modern security issues require more than physical strength. Access credentials, controlled entry, and electronic logging are all emerging as security necessities. Fortunately, electronic access control systems are built to seamlessly and almost invisibly integrate into projects, including historic buildings where authenticity is paramount.

There are several access control systems that feature scalable parts that integrate wirelessly into a central control system with queryable reports, but when the time came to upgrade the Hager headquarters, the obvious choice was HS4, Hager powered by Salto, the security system recently rolled out by Hager Companies.



The Project

Hager Companies' headquarters was designated on the National Register of Historic Places in 1987. Located in the industrial section of Soulard just a few blocks off the Mississippi River in St. Louis, MO., Hager products were originally manufactured out of this facility. Employees today still drive

over the railroad tracks that brought raw materials to be manufactured into hinges.



The wood brick floor, in what is now the warehouse, has held up amazingly well over several decades. The St. Louis facility has expanded and evolved over the years to become the core of Hager Companies, operations, sales, research, and customer support. As is the case in most historic buildings, there was existing wiring in place for outdated systems, as well as standard wear and tear, an new needs that had developed since the last remodel. Anytime an existing facility is thinking about upgrading their system system, there is a long list of issues that need to be addressed.

The Hager powered by Salto HS4 access control system features several modules that allow it to be scaled to the needs of the project. SVN, (Salto Virtual Network), is a secure data-on-card system, which means that credentials like ID badges or key fobs can exchange information with the wall reader - such as user access, battery life, and updated lists of blocked users, lost credentials or revoked access. This information can then be shared with the offline locks on the interior of the building. Wireless capabilities also give

the system ability to have real-time updates, remote monitoring, and almost instantaneous lockdown capabilities.

The Details

The front doors of the building are a main point of access for visitors to the headquarters. However, historical aspects of the building had to be maintained and Hager wanted to avoid cutting or damaging existing doors and hardware. To minimize a mess retrofit, the versatile GEO cylinder was used on the front doors. This enabled almost instant electronic control to be installed without removing the existing locking hardware. The GEO cylinder then acts as a card reader and clutching mechanism for the lock. It was a good choice for the front entry doors where a card reader was necessary, but a larger reader with new hardware would have been too obvious.



A GEO Padlock was installed on the front gate of the courtyard. The GEO Padlock sounds exactly what it is - a card reader on a padlock. This means that employees with the right authorization can still access the courtyard at predetermined times while maintaining the security of the facility. Hager also uses this on the sliding door gate into the Intertek testing facility. The area must be kept secure to comply with testing regulations.

It was also necessary to add locks to interior offices. This could have been an enormous project; some locks may have required new templates to be cut, with raceways for wiring, possibly even new wired hinges. Replacement doors may have been necessary.

However, Hager choose the HS4 Mini with SVN technology, which installs into the same template as a cylindrical lock. When employees enter the building in the morning, they present their credentials at the wall reader which acts as a revalidation point. Access rights for the day, as well as audit trails from the day before, and any low battery alert from offline locks are exchanged between the wall reader and the card. This effectively creates a brand-new key for every user which allows them access to their offices and dedicated areas.



Four exterior doors required updating, and the wide body escutcheon was chosen. These four doors did require some alteration for the new locking mechanism; however, it only required two 9/16" holes drilled in each door.

A wireless wide body cylindrical lock was installed on the Server room. This allows instantaneous audits of personnel use and remote monitoring as well as remote unlock and locking capability. Virtual networking will allow the system to easily expand into all parts of the building should it be necessary in the future.

By employee request, a long-range reader was placed at the employee gate to reduce a bottleneck into the parking lot in the morning. The long-range reader also collects "auto trails" information, which is important in case someone piggy backs onto an employee entering the buildings.

The Benefits

The challenge with retrofitting any existing building is to find a new system that is flexible in its application and scalable in its usability. Once the SVN and wireless platforms were chosen, it was easy to select the correct hardware for each opening - especially given the number of options available with the HS4 system.

Another critical challenge was to determine which department would run each aspect of the software, an endeavor that involved Information Technology (IT), Human Resources (HR), and Maintenance/Security. HS4's Pro Access Space software makes it easy to divide up tasks due to its simple user interface and intuitive programming. If necessary, multiple departments can be allowed access to the database to create ID tags and assign access rights to users.

At Hager headquarters, HR issues credentials to employees using a printing module that allows them to print photo IDs right on the card. The Maintenance/Security department issues credentials and manages access rights and times for outside service personnel like the cleaning crew, trash and recycling pick up.

Preserving history while maintaining security can be accomplished, with the right system.

