



Physical Security Requirements Present a Set of Unique Challenges for Retailers

As a retailer, you are challenged with providing your customers a safe, clean, and aesthetic environment to shop in. Your store must also be safe for your employees, who arriving before and leave after store hours to prepare the store for the following shopping day. You must protect your employees by not putting them in potentially dangerous situations waiting for managers to arrive in order to gain access to a locked store or restricted egress due to locked entrances/exits in case of fire or other unexpected emergencies that require a quick exit.

In addition to this, you also need to protect your store assets from employee theft because unfortunately it accounts for a whopping 44% of all retail losses according to Dr. Richard Hollinger, a Criminology Professor at the University of Florida.

Generally high employee turnover rates complicate the problem of ensuring that only authorized people have access to your stores and other assets. If you have multiple outlets and a workforce that works across those multiple locations the problems get even more difficult to manage.

Are your current physical security measures able to provide the adequate protection against these threats and potential liabilities?

Are you relying on managers arriving on time to let employees into a secured environment?

Do you have a way to remotely provide access to your store if a manager fails to show up on time?

Do you have an easy way to monitor when your stores were opened by their managers?

Are you keeping the back door locked during operational hours and is that compliant with local fire codes?

How do you protect your assets from shrinkage?

If your current physical security measures are not able to help you deal with all of these situations then it is time to consider a physical Access Control solution, for increased security, safety and accountability.

Control and management of a mobile workforce across multiple sites with logging and reporting requirements demands a centrally managed system to meet your retail business' needs while controlling costs. Current practices rely on centrally administered key management, which is cumbersome, costly, and provides weak physical security.

To achieve the highest level of physical security and accurately log who has access and when they had access to your stores, an Access Control System (ACS) is required.

The ideal physical access control solution would have the following features:

- Low installation cost



- Eliminate the need for keys, key management and lock re-keying costs
- Plug-and-play with existing IT infrastructure to minimize IT support costs
- Provide secure network communications with the central management authority
- Central management of remote sites
- Automated notifications and reporting

But in general individual locations do not have very robust IT infrastructure. They usually have Internet connectivity to support various business functions, but nothing that would require support or maintenance from a system or network engineer. The cost would simply be too high. Furthermore, it is very rare that there is any staff on site that is qualified to operate and maintain a security system.

Today's incumbent Security System Manufacturers are not meeting these unique challenges with their current product offerings.

Incumbent Security System Manufacturers and their Business Models

The dominant manufacturers offering integrated security systems established their businesses by successfully targeting large companies with vast IT staff and infrastructure, relying heavily on the client's IT resources to deliver enterprise Access Control functions. Their systems were designed around client-server architectures with components connected together using serial communication networks, which meant that the remote sites or other geographically dispersed assets could not be protected in an integrated security environment without a large additional infrastructure investment.

This dynamic has resulted in the entrenchment of outdated technologies in the security industry. While modern technologies might bring the benefits of integrated security systems to a broader range of customers, there is very little incentive for the incumbent system manufacturers to invest in these technologies. Designing new products and marketing those products to smaller corporate clients or large corporations with dispersed locations would drive down corporate ROI in the short term, driving down stock prices and shareholder value, which management is loath to do. As a result, these incumbents have not made significant efforts to introduce systems that are based on modern information technology.

The solutions that they currently offer to smaller corporate clients or remote corporate sites are simply lite versions of the products that they sell to their large customers. While some of these legacy systems have been adapted to use modern IP networks, their client-server architecture continues to limit their ability to be easily extended to remote locations. While these assets can be easily connected over the Internet, their architecture still requires that the corporate network and firewall be extended to these locations in order to maintain network security. The IT infrastructure required to achieve that security still costs thousands of dollars per location plus ongoing maintenance costs.

Introducing Reach Systems

From Reach's perspective, small to mid-size companies and corporate remote facilities represent a large and profitable business opportunity. The Reach Access Control System ("Reach ACS") uses IP networks and other modern information technologies to deliver an enterprise class security system to small-scale users and remote sites at a considerably reduced cost.



By designing and building an access control system from scratch to exploit ubiquitous IP connectivity without compromising corporate network security, Reach can offer companies with small widely distributed assets the means to centrally manage and secure all of their assets using existing IT infrastructure and no added capital costs – something that is literally impossible with legacy access control systems.

The Reach ACS has been built to modern software design standards, minimizing support costs, reducing training costs and supporting standard IT identity management conventions, reducing ongoing training and support costs and thus the total cost of ownership.

ReachNet is the system management application through which users manage Reach ACS. It is comprised of a database and a web application that provides a browser interface to the ReachNet system. All user interaction with ReachNet takes place through a standard web browser, so authorized users may login to the system over the Internet from anywhere, anytime. ReachNet is built on an enterprise class Oracle database and utilizes open source software and operating systems wherever possible. ReachNet is designed to be highly scalable and because there is no on-site software to install, it can be deployed cost effectively for a single door access system or for an enterprise-wide system that spans the globe.

Reach enterprise ACS features include:

- Role Based access to ReachNet
- Remote enrollment of employees
- Remote termination of access permissions
- Automated Notifications based on specified events
- Automated Reporting based on specified events
- Scheduling of doors and users
- Real-time monitoring of all remote sites

Reach Secured System Architecture

In addition to leveraging the latest technology, Reach has developed a unique architecture enabling secured data communication over the Internet regardless of the structure of the security domain in which it is deployed. Reach has applied for a patent (application # 20070130294) for this architecture. Unlike the traditional client-server ACS applications or other so called IP based solutions, Reach does not require the opening of the network firewall for communication between the Reach server and onsite AC devices. Opening in-bound communication channels within the firewall can pose serious vulnerabilities and typically will not be approved by the IT department. In addition to this, Reach will not require the extension of the client's LAN via Virtual Private Network (VPN) which is expensive to deploy and maintain, and potentially can increase the ACS project cost by 5x.

Using the latest IP technology and Reach proprietary technology, Reach is able to deliver a tailor-made solution to meet the unique security requirements of Retail clients.



Flexible Delivery Model to Meet Your Business Needs

For the small to mid-size Retail chains that don't have IT staff to support an Access Control System, Reach offers a web hosted platform. Rather than purchasing Reach software and having to maintain the software, you simply pay a monthly fee to access Reachnet. ReachNet as a hosted service resides in a secure colocation facility and communicates with access control devices at doors over the Internet. All interaction with the Reach ACS is done through a standard web browser on any computer. This eliminates the cost of buying any software, computer hardware or data storage devices. It also eliminates all of the personnel costs associated with maintaining the software and hardware and with backing up your valuable data. You can rest assured that all of that is taken care of by Reach in its highly secure colocation facility with backup generators, internet connections and 24 by 7 staffing.