

Why Should You Invest In An Access Management System?

The key word in this question is **Invest**. Buying and installing an access system by itself is an investment that will increase security, enhance overall building integrity, and improve operations efficiency by bringing data relative to door and entry status back to one central point. Recent advances in computer technology have made it possible to integrate other facility control functions such as HVAC, elevator, time & attendance, asset tracking, and electronic photo imaging & badging into present access systems turning them into integrated management tools. Now, information with respect to the total facility infrastructure can be monitored, controlled and synchronized from one central point of control expanding the scope of the investment and making an easier task of Return On Investment (ROI) Justification.

Here are a few of the more notable benefits to an integrated approach to Access Management.

ENHANCEMENT OF PERSONAL SAFETY

By limiting access into work areas and parking facilities to authorized individuals only, the possibilities of assault or accidents are greatly reduced, especially during off hours and at night.

RESPOND IMMEDIATELY TO INCIDENTS

Monitoring all entries and exits throughout a facility allows you to respond automatically to emergencies and to forced or unauthorized entry into protected areas. The response may be an audible alarm, CCTV, or immediately contacting police or emergency medical services.

ASSET PROTECTION

Different facilities have many various types of assets to protect, ranging from materials to intellectual property. The amount of protection provided can vary according to the importance of the information or assets being secured.

INCREASED EMPLOYEE PRODUCTIVITY

Employees will only be allowed access into the work areas where their presence can benefit the organization. Employees may be restricted from entry into certain work areas where the only probable cause for entry would be to socialize with other employees.

PROTECT MULTI-TENANT BUILDINGS

Each tenant can receive an individual report for his or her floor or suite. Operating costs can be reduced. Safety liabilities can be reduced.

REDUCTION OF SECURITY COSTS

Supplement or replace security guard services with more cost-effective access control.

IMPROVED ACCOUNTABILITY

Monitor all activities within your facility and analyze system reports for compliance to policies and procedures, effectiveness of access privileges, and changing security needs.

FACILITIES MANAGEMENT

Regulate Heating, Ventilation, Air Conditioning and other equipment and automatically open doors for emergency exit.

ELEVATOR CONTROL

Allow or restrict access to any one floor or group of floors while free access could be given to public floors.

DELETION OR REPLACEMENT OF CARDS

Unlike a conventional key system, a lost or stolen card can be replaced and voided in one simple operation. If an employee leaves the company with his key, all the locks in the facility would need to be changed to insure the integrity of the security of the building.

CCTV INTEGRATION

Most advanced systems allow the integration of Closed Circuit TV that is activated with the use of a card or keypad. The signal is relayed back to the PC where the image is displayed on the monitor, giving positive verification of a person or vehicle.

OTHER BENEFITS

- Reduced insurance costs
- Monitor and control from a remote or central location further reducing operating costs
- Monitor alarms, motion detectors and other environmental sensing equipment
- Versatility (turn equipment and systems on/off by cards, keypad, or scheduling)
- Adaptability (independent access rules for each person or entry point)

COMMONLY USED METHODS FOR FACILITY PROTECTION

- Physical Security – doors, turnstiles, locks/strikes, walls, fences, vehicle barriers, moats, barbed wire, safes and vaults, hardened glass, lighting, signage, and special architectural features.
- Electronic Security – access control equipment alarm systems (intrusion, perimeter and article protection equipment, central station monitoring, annunciation and reporting systems, communications and surveillance systems); voice intercom; covert surveillance and countermeasures; computer/communications security, encryption, guard tour systems; scanning and inspection of baggage, parcels, and people.
- Guards and Patrols – armored cars and couriers.
- Planning and Investigations – security consultants and planners, personnel profiling, screening, interviewing and investigation services.
- Systems and Procedures – educational training
- Public Resources – the local police force, the legal system, insurance companies.

BASIC STEPS TO EFFECTIVELY IMPLEMENT A SECURITY PLAN

- Identify the most serious risks or threats to people, assets and property.
- Determine access authorizations of personnel.
- Scrutinize the geography of the facility, leave no easy means of encroachment.
- Integrate access control with other building control systems.

ASSOCIATED ELEMENTS FOR THE TOTAL SECURITY SYSTEM

PORTAL HARDWARE

Includes electromechanical means for locking the door, door-position (open/closed) sensor, switch or other means for exiting without causing an alarm. Sensor for insuring that the bolt has been closed.

PHYSICAL BARRIERS

All persons must pass through an area where they can be observed by the access control equipment and must be prevented from passing through unprotected areas. The design of physical barriers such as walls, fences, windows, air vents, etc. is also an important part of the total security system.

MANTRAPS AND TURNSTILES

These can be incorporated to insure that only one person enters through a controlled portal at a time, that there is no tail-gating and that every person's access credential is validated.

GUARDS AND PATROLS

The most effective security systems are those which combine the use of a watchman along with an automated system rather than relying solely upon a single system.

OTHER SENSORS

When connected with door hardware, various sensing devices can be monitored by the intrusion detectors, smoke detectors, object protection alarms and tamper alarms.

MULTIPLE SYSTEMS

There may be other related unitary systems provided in the same facility with the access control equipment, such as safety equipment, fire detection and alarm, CCTV, intrusion detection, article surveillance, etc. There may be utilities and HVAC management, time and attendance or job cost monitoring. If all these functions need to be integrated on one system, extensive planning must be done.

ELECTRICAL POWER SYSTEMS

Power systems can be subject to many irregularities such as spikes, surges, brownouts, noise, sags, etc. The provision of noise-filtering equipment, battery back-ups, special power supplies, emergency generators, etc. is usually necessary to guarantee a completely fail safe security system.

PEOPLE

People are usually the last element to be considered when a system is designed. But essentially, they are the reason for the system. There are people who must always be admitted everywhere at any time. Some people must be able to travel to different locations on site, but only during certain times. There are also people who must not be admitted at any time. There are security people who monitor the system, respond to alarms, and handle a typical situation.

WHAT MAKES UP AN ACCESS MANAGEMENT SYSTEM?

Every access system centers around an individual's desire to secure, or gain access through an entry way. An entryway may be an employee entrance, parking gate, garage door or any other such barrier that can be secured.

The 5 main components of an Access Management System are as follows:

- Electromechanically controlled locking hardware
 - Magnetic lock
 - Electric strike
 - Electric lockset
- Access credential
 - Encoded access card or token
 - Numeric PIN code
 - Biometric attribute
- Reading device
 - Card reader
 - Keypad
 - Biometric verification station
- Electronically based decision making processor
 - Main processor
 - Application software
 - Interface with PC and other peripheral equipment
- Monitoring or recording device
 - Terminal
 - Printer
 - Personal Computer

ELECTROMECHANICALLY CONTROLLED DOOR LOCKING HARDWARE

The most fundamental part to any access system is a means to secure the entryway. In an electronically-based system, the locking device must be electrically controlled. This section outlines the MOST popular devices used.

ELECTROMAGNETIC LOCK

Function: An auxiliary electrically operated device, which while energized, will prevent the door from being opened.

How it works: The electromagnetic lock is mounted to the door frame and a steel strike plate is mounted to the door, which holds the door closed. There are two basic types of Electromagnetic Locks: direct pull and shear.

Direct Pull: The electromagnetic lock is securely attached to the doorframe and aligned with the strike plate mounted to the push side face of the door. When the lock is energized and the door closed, the strike is magnetically held to the lock holding the door secure. Typically the holding force of these devices is between 600 and 1500 lb. When power is removed, the magnetic field is released and the door may be opened.

Shear: The shear type electromagnetic lock uses a different method to accomplish locking. In this arrangement, the strike plate is mounted in the top door edge facing upwards, and the lock is mounted in the doorframe facing down. With the door closed, the lock energized strike plate, which has a small amount of vertical movement, is attracted to the lock. An opening in the strike plate captures a stationary protrusion on the face of the lock. This prevents the strike plate from sliding off the face of the lock.

ELECTRIC STRIKE

Function: It electrically releases the portion of the strike that holds a lock sets' latch bolt, thus allowing the door to open without retracting the latch bolt. This unit replaces the standard pocket strike for most types of latch bolts.

How It Works: The outer lip in the strike body holds the latch bolt of the lock in the pocket. The lip is held in position by a solenoid, and is allowed to pivot when power is applied (fail secure operation) or interrupted (fail safe operation) to the strike.

As with electric locksets, the electric strike is used for the remote control of doors. Although not as secure, this type of locking device is preferred when it is impractical to run wiring through a door, i.e. glass store front doors.

ELECTRIC LOCKSET

Function: It electrically locks or unlocks knob, lever or thumb piece on one or both sides of the lock.

How It

Works: An electrically actuated solenoid replaces or duplicates the action of a key to lock or unlock the knob.

When used in a computer controlled access system in conjunction with a key pad, card reader or other verification device, many restrictions may be imposed on that particular door which otherwise would be impossible to accomplish with regular lock and key.

There are two basic types of electric locksets: Fail Safe, in which the lockset releases or unlocks at the loss of power and Fail Secure, in which the lockset engages or locks at the loss of power.

NOTE: Electric locksets require the use of a feed through hinge or pivot as a means of supplying power from the frame to the door.

ELECTRIC HINGES, PIVOTS, AND DOOR LOOPS

Function: They provide wiring access from a frame to a swinging door by insulated wires that are mechanically supported and protected between the two members.

How It

Works: Feed through hinges are available with up to 8 conductors. The center section of the hinge pin is left out, leaving an area to coil the conductors which are fed through two holes drilled through the leaves of the hinge. Feed through offset pivots are constructed in a similar manner.

Feed through hinges and pivots are used in the intermediate or center hinge position of the door. Their construction does not allow them to function as load bearing and should not be used as such.

Door loops, also known as door cords, are surface applied versions of feed through hinges and pivots. One mounting block is attached to the face of the frame, while the other is attached to the face of the door. A flexible metallic or plastic conduit is connected to each block through which the wiring is fed.