



# New Security System

A smart guide for buyers



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## Chapter 1:

# Considerations when acquiring a security system

### What job should the system do?

Designing a new security system is about combining customer needs with the existing solutions that can be integrated. As a customer, you must therefore uncover what you have today and what tasks a new system should take care of in the future. Here are some important questions that need to be answered:

- > **What do you have today?**  
Type of system, brand, year, last upgrade? To what extent do different systems work together?
- > **Should a new system save costs?**  
Should it replace manual services, such as reception staff and security guards?
- > **What should a new system provide?**  
Keyless entrance or increased security?
- > **Should you manage the system yourself?**  
Or do you have tenants who will manage their

floors/premises themselves?

- > **Should a new system be linked?**  
To other, existing systems?
- > **Should the level of access be differentiated for your own employees?**  
Should the system be differentiated to different tenants?
- > **Do you have multiple buildings?**  
Departments in different parts of the country? If so, is it most appropriate to have the same system and the same supplier and the same service agreement for all?

It is very important to establish a good dialogue with all those who enter the building regularly. Businesses have different security requirements, and if a building is not secured well enough, it can be difficult to attract new tenants with special requirements, like public administration.



## What is the expected lifetime?

When a company chooses a security system, the lifetime horizon should be 10 - 15 years. Various components will necessarily require upgrades, but the most important thing is still to choose solutions and suppliers that are open to integrations with other systems.

In other words, is it possible that the company may change or expand its business to areas that require new security measures?

It is also important to check that other suppliers in the market can support the same system. If a company chooses a closed system, it also becomes supplier-dependent. If so, service cannot be outsourced to others later. This means that you cannot switch to another supplier, even if you are not satisfied.

## What is critical for operational safety?

It is important to consider how critical it will be if the system fails. What is the cost of having fifteen employees standing outside the building waiting for an hour to enter through the main entrance? How long can you wait for spare parts to be sent from one side of the country to another?

If the answer is that every hour matters, it is smart to choose a supplier that operates with contractual guarantees. It is easy to look blindly at the investment cost and forget about operation and maintenance – what kind of service the supplier can offer.

Quick access to new parts and professional support helps to increase safety and minimize downtime costs.

## Which rules apply to privacy and HSE?

Installing safety systems in a workplace are measures that also affect employees. Additionally, there are numerous government requirements for securing employees, so that they are not exposed to danger at work, for example in production sites and industrial plants.

There are also several requirements that safeguard employees' privacy, especially when it comes to the use of surveillance cameras.

In general, the company must be able to document a justified need to use a surveillance camera. Regulations also include requirements for when and how the monitoring is carried out, how recordings are used, stored and deleted, and how the facility itself is secured.

As a purchaser, you do not need to be an expert in legislation, in either HSE or privacy. A good advisor helps you choose solutions that take care of the company's security needs and ensures they are legally compliant.

Chapter 2:

# What are the possibilities?





## Access Control Systems

### **Traditional access cards.**

The most common solution is an access card, preferably with a photo, which acts as an ID card as well. This is controlled by a card reader, which comes in many different variants. A security advantage with cards over keys is that a lost card can be removed from the system, in the same way as access cards are deleted if they are not returned by employees who leave.

It is important to be aware of different card technologies: not all of them are safe, and some enable copying and abuse. It is crucial to ensure the quality with a competent advisor.

### **Access through the phone.**

Today, access can also be given through mobile phones, using a virtual access card reader at the entrance. The solution requires a bit more from the user and is more expensive than conventional access cards, but it eliminates card handling.

### **Intercoms.**

There are two main types of intercom systems: with and without video. For some businesses, it is important just to be able to remotely open a door when it rings, while others need a video surveillance room to see or even identify those who are let into the building or through the driveway.

There are several different intercom systems on the market, not only in terms of brands and types, but also their connectivity. The best solution for you depends on how (or rather: who) will open the door or gate remotely. Should there be a call, for example to the switchboard, or redirected to employees if it is not answered?

For office buildings with many tenants, an intercom can be equipped with a display where the guest uses an arrow key to select the right company.

Intercoms can be delivered as a stand-alone solution, but it is often integrated with the access control system.

**License plate recognition**

Some companies have employees who arrive at the workplace in vehicles, either through garage facilities or via driveways. A long-range license plate reader can replace the security service or the need to exit the vehicle using the card reader. This solution does not have to be a replacement for the card reader, rather a convenient addition.

**Battery-powered wireless card reader.**

This is a solution that is mounted on the door and works as an electronic door lock. This solution can be used on office doors, like HR and finance, or for computer rooms and other rooms with limited access. One advantage is that you do not have to use long cables for just one door.

It is recommended that the batteries are replaced in connection with the annual inspection of the system.

Note that cordless card readers cannot be used on doors in escape routes or on automatic doors.

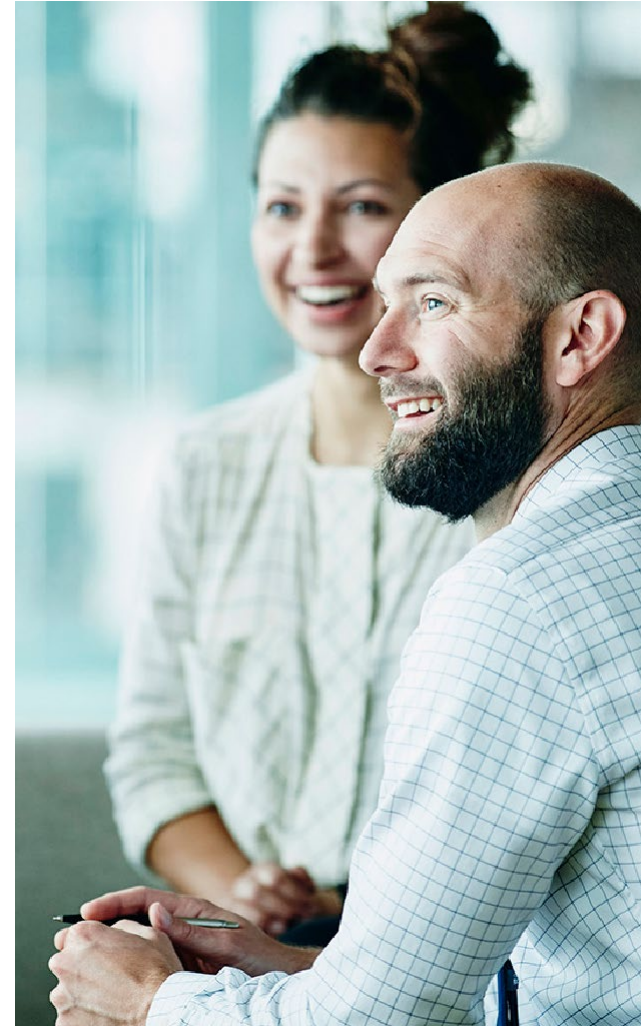
**Offline card readers.**

An affordable and smart solution for doors or gates in places where it is unnatural or very expensive to cable for online card reading. These card readers may be relevant on remote doors in large industrial areas or for switchboard rooms out on a plant where there is no wireless network. The advantage is that you do not have to cable over large distances.

It is recommended that the batteries are replaced in connection with the annual inspection of the system.

The technology involves programming the card with time-limited access, like cards for hotel rooms.

The solution can also be used when you want to make the building keyless in an efficient way. An offline card reader can then be used on the doors where you do not necessarily want to secure the door, but to be able to open it without using keys.



## Burglar alarm systems

### **Different detectors.**

To protect the business against burglary, several different detectors and sensors can be installed that respond to everything from broken glass or movement, to water, smoke, temperature, etc. which triggers an alarm or an electronic warning.

Buildings may have different needs on different floors. In some cases, the ground floor is more exposed than the others and may benefit from having an around-the-clock detector for broken glass. These solutions, and all their details, can be adapted to the individual customer's needs.

### **Pre-warning of alarm activation.**

If desired, a warning can be set up in the form of a buzz or strobe light, which signals to the employees that the alarm will be switched on after a given time. The employees then have a predetermined number of minutes to leave the building or go to the card reader and postpone the alarm activation.

### **Notification and emergency.**

What should happen when detectors and sensors are in place? When does the alarm go off? As a customer, you choose which alarms to respond to, and any security services to associate with your company.

It is also possible to send notification by SMS directly to the operations manager or other operating personnel when the alarms are triggered



## Perimeter protection

Perimeter protection secures external areas, which is most relevant for facilities and businesses with particularly high security requirements, such as offshore, police, defense, and airports.

Many different technologies and solutions are available, such as fence protection that detects cutting and climbing, thermal cameras and sensors, line detectors and intelligent cameras.

It may also be appropriate to use standard motion sensors and infrared detectors, for shorter distances than the cameras can cover.



## Video surveillance

With video surveillance we often think of physical surveillance to prevent burglary, terrorism, or ensure personal safety. But cameras can also be an important measure to take care of equipment and machines, simply securing the company's valuables.

**You cannot setup camera surveillance however you want - not even in your own company.**

### Defined needs.

In order to set up cameras, the business must have a defined need. The use of video surveillance can be regarded as a breach of privacy and standard legislation does not allow the surveillance of employees.

Video surveillance, on the other hand, is allowed in these types of scenarios:

- > To protect your own area, prevent vandalism or intrusion
- > To verify that the cardholder is the one shown by the camera at the access control or drive port
- > To monitor machinery and/or industrial processes
- > To prevent accidents or incidents related to personal safety

Video surveillance that covers areas other than the company's own is not permitted.



### Fixed or moving camera?

For video surveillance, fixed cameras are used to point at a specific and limited area, while moving cameras are controlled manually or integrated with other systems and aimed at the place where the alarm was triggered.

A typical scenario is to use a fixed camera for face- and sign-recognition in strategic places such as the entrance and driveway, while other moving cameras in the area show an overview where the movements of the person or car is identified.

We also distinguish between "reactive" and "proactive" use of the facility:

**Reactive use** is when the company does not have anyone watching the camera daily, but in the event of an incident checks video and uses footage as documentation, for example, when video is handed over to the police.

When the system is used reactively, we mainly use fixed cameras. In larger systems, moving cameras can be integrated with other systems, such as glass break detectors, motion detectors, or radar to cover a larger area.



**Proactive use** is when you have a security guard who watches live video from the camera. The goal is to identify a threat, attempted vandalism, or theft before it happens.

Mainly fixed cameras are used, supplemented by some moving cameras controlled by the operator to zoom in, identify, and clarify situations.

### Camera surveillance and HSE.

In factories and industrial plants, camera surveillance can be used to ensure the company's safety regulations are not violated, to secure personnel, and to help prevent accidents.

### **Monitoring of machines and processes.**

Camera surveillance can be used to monitor machines or processes, so that the operators in the control room can see what is happening at the plant. For example, this type of monitoring is used in feed manufacturing when feeding fish in fish farms, and in large industrial plants such as quarries, etc.

Camera surveillance can also be connected directly to machines to monitor temperatures. If the temperature exceeds a certain level, an alarm is triggered.

### **Added value when integrating.**

The main function of video surveillance is to be able to see what is happening, to detect, or identify. By integrating access control and video surveillance you can achieve significant added value as the log can verify what has happened and who was involved. The principle is that you focus on specific points while monitoring the rest of the area.





## Locking systems

There are many options within locking systems. Here, the nature of your business determines what type of lock is optimal. It is recommended to use locking systems that satisfy the insurance companies' requirements for security.

However, an optimal solution requires cooperation. Often one company supplies a door, another one supplies a locking system and a third one provides access control. It is important that the choices are made in the right order.

### **Mechanical lock with key.**

For some companies, a conventional key lock is still a good and satisfactory solution.

### **Electronic lock.**

There are several different brands and models, both day locks and night locks. What is important is to choose a door and locking system that satisfies government-imposed escape requirements.

It is also important that the requirements for universal design are met, including the specific requirements associated with evacuation.

### **Work registration.**

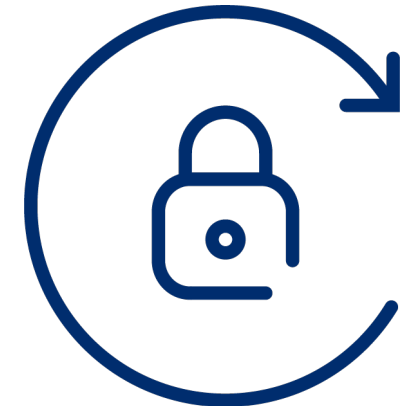
Some companies use time clocks to track employee hours at the workplace. It is important to know that by law, such clocks cannot be linked to access control, even if the employees use the same card. There must be separate systems where the data is stored in separate databases. The point is that you cannot use access control as a time clock.

It is smart to hire an adviser who knows the different systems available, how they can be linked together and what is permitted use.

### **Visitor administration.**

When larger companies receive visitors, it is common to register at the reception where the guest receives a sticker or an ordinary access card where the data is removed when the person leaves the building.

The actual registration is usually done by the guest on a touch screen, while the access card itself either comes directly out of the same machine, much like an ATM, or is assigned by the receptionist.



The different solutions have slightly different advantages, and the company's needs determine which is best.

It is also possible to register guests even before they arrive. If the person awaiting visitors registers the visitors in the system, guests can receive a QR code on their phone, which can be read against a scanner on arrival. Such a solution is particularly practical if a delegation of people is expected, or at times when queues normally form before registration at the reception.

## Smart Integrations



### Integration with the building's functions

It is becoming increasingly common to integrate access control with other functions in the building.

For example, it is entirely possible to connect access control to lighting, ventilation and temperature control; in principle, everything can be turned on, including the coffee machine, when the first employee arrives at work in the morning.

### Automatic evacuation system

**A new solution where everyone in a building receives a message on their mobile phone about evacuation when the alarm goes off.**

The messages also contain information about what to do and can be customized for different user groups in the building.

The solution is connected to fire alarms and access control and can be used during various threats or when information needs arise.

### AV equipment in meeting rooms

Solutions for audio and video normally involve not only wires but all the right inputs for any type of PC and remote controls and possibly other types of panels.

Today, it is possible to solve everything via touch screen, whether it is to start up the screen, turn the light on and off, or start. The solution is very intuitive and covers all the functions the meeting manager in the room needs.

Similar solutions exist for security systems, where the guard or receptionist can solve tasks on a tablet instead of entering a PC.



### Chapter 3

## How Caverion works with security

### Can security go from cost to value?

At Caverion, you will meet some of the market's most skilled and up-to-date advisors, whether you want a conventional and proven system, or a comprehensive system of advanced integrations and solutions unique to your needs. The technology exists and we have the heads to put it all together.

What will be the optimal security system for you? We will find out together after we discuss your needs and what requirements the company must meet. What we can say is that it is important to engage an advisor early, so that the system will be flexible enough to withstand the needs of the future.







### How Caverion works with security:

- > Always recommend the system and the solutions that will be most cost-effective in the long run.
- > Use open solutions, which are independent of systems, and supports the most common communication solutions.
- > Deliver stand-alone systems where appropriate.
- > Offer special expertise in fully integrated systems for access control, burglary alarms, video surveillance and intercom systems.

- > Caverion designs, installs, and maintains technical security solutions across the Nordics.
- > Our own warehouse with parts, and a professional, nationwide field service with certified and dedicated safety technicians.
- > Service contracts with guarantees.

**Caverion knows the possibilities of integrating systems so that our customers get the most out of the equipment.**

**This is what we mean when we say that security can go from cost to value.**



**Building Performance**