The primary objectives of a visitor management system are to implement the company’s security policies, obtain reliable information about visitors and visits, and to give a professional impression without excessive costs. Optimising this process can lead to significant cost reduction, improved security and access to valuable visitor data. All aspects of the visitor management process will be discussed in this article.

Using the method of analysis presented in this paper, the impact of decisions in the visitor handling and registration policy can be assessed. The flow description can be used to optimise existing visitor management policies or to define a new policy. As this article will show, visitor management has strong relations with both technical and organisational aspects.

Definition of visitor management
Visitor management is defined as the subject concerned with registering and handling visitors. In general a visitor can be described as a person who is visiting or is going to visit a site for a limited period of time and does not have any contractual relation to this site. A site can be a physical site (e.g. building, location) or a virtual site (e.g. website). The actual presence on the site is described as the visit. People with contractual relations are usually referred to as employees, permanent residents or contractors.

The importance of visitor management depends on the type of business conducted by the site. In commercial companies, the majority of visitors may be consumers or prospects and expect to be treated as such. In the defence industry, for example, information protection is vital and it is necessary that high security regulations are applied to visitor management.

In all cases, the management of visitors consists of two main steps. Before the actual visit starts, the visitor is registered:
- personal details
- purpose and details of the visit
- expected date and time of the visit (now or in the future).

Once the visitor is registered, the actual visit can start. The visit ends when the visitor has left the site and the ending has been registered.

This paper describes in detail the process flow and actions during the registration and visit.

Registration of visitors
The registration of visitors takes place prior to the actual visit. The most basic registration consists of the visitor name and the date of the visit. If the security policy states that visitors should have a responsible contact person within the site, this contact person is also registered. For sites in city centres or highly populated areas, a car-park reservation may also be necessary prior to the visit.

Visitors are typically registered by staff on the site to be visited, but in certain cases, visitors can do the registration themselves.

The registration often starts with a pre-registration some time before the visit, followed by completion just before the visit starts.
Depending on the security policy of the site, the registration process may consist of the following activities:
- Check that the visitor is on a blacklist.
- Determine whether the visitor has visited the site before (reuse personal data).
- Capturing of photo, ID (passport, ID card, drivers license), signature.
- Biometric enrolment (verification or identification).
- Assign access control rights (duration of visit, rights and permissions during visit, authorisation groups).
- Print a personalised badge.
- Enter visit details (whether is being visited, contact or approval person).
- Enter site specific details (parking space, license plate etc).
- Enter office and destination.

Visit
The visit starts when the registration has been completed. A common procedure is to have some sort of reception desk at which the visitor registration is completed. The contact person is traced and informed about the arrival of the visitor. This is when the visit starts. At the end of the visit, there is formal visit end which can consist of handling over a badge to a custodian or a card collector.

Depending on the security policy of the site, the following activities may be relevant to the visit process:
- Visitor arrives at carpark and uses e.g. intercom to announce his arrival.
- Check for parking reservation based on name or license plate.
- Visitor parks car and goes to reception.
- Reception completes registration.
- Issue the badge.
- Find contact person and inform about arrival of the visitor.
- Request visitor to wait in reception to be collected by contact person.
- Transfer of visitor from reception to contact person.
- Record movements of visitor in the site.
- Release visitor to reception by contact person.
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- Record movements of visitor in the site.
- Release visitor by reception.

Workflow analysis
The processes described in the previous paragraphs consist of the following activities:
- Human interaction (inquiry, explaining procedure etc.).
- Data entry/selection.
- Data capture.
- Decision making (what access control rights must be assigned, handle irregularities).
The enrolment process in particular a high security environment will consist of many combinations of these activities.

In workflow modelling, the process is normally represented schematically in a flow diagram. The actions and decisions for each actor are contracted in a logical sequence. The actor is the person performing the action or taking the decision.

The general procedure for assessing the complexity of the workflow is to determine the number of human interactions, actions and decisions. By adding typical durations for the actions, the total duration of the registration can be computed.

Typically, the human interactions and data capture are most time consuming. Data entry/selection and decision making are most sensitive to errors.

Privacy aspects: Roles, preferences and permissions
Managing visitor information is subject to privacy regulations. In some cases, international rules and regulations limit the visitor registration. Other situations call for precautionary data hiding/ protection for safety, political, cultural or commercial reasons.

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the risk of incidents and resulting damage? Does the organisation have sufficient insight into visitor related information? Depending on your focus you can decide on the scope of the analysis.

Efficiency refers to the optimal use of resources to manage, automate and execute the process. While maintaining quality at a certain level, your organisation can try to make the process more efficient by gaining insight into the activities that are carried out by personnel, and other resources (equipment, facilities, systems) that are being used related to visitor management.

Combining the analysis of effectiveness with insight into the efficiency of the process may lead to valuable information regarding the costs involved and the ROI (Return on Investment) of investments related to visitor management.

Visitor Management and Access Control

The scope of this article is the visitor management process. In reality, your organisation will deal with all sorts of processes that are more or less security related. One of the challenges of security management is to understand the relationship between these processes and to see the opportunities to increase both security levels and general customer satisfaction.

For the management and execution of processes many systems are being used: systems to collect and store information, systems to generate reports, and systems to influence human behaviour. Using one system for several processes may result in more efficient use of resources, but it may also provide other benefits, like improved availability of richer and more valuable information.

Combining visitor management with access control seems an obvious step to take. Access control systems already store information about employees and are able to provide employees with access to zones within the building in a secure and friendly way. Extending this functionality to visitors (and contractors) should not be too difficult for any modern system that deals with access control and security. A few advantages of using an access control system for visitor management are:

• It is possible to provide an access badge to visitors to give them access to the site immediately and easily.
• Movements of visitors are stored in the access control database and can be linked to employee movements, which can improve analysis possibilities after incidents.
• The system can enforce a policy that says that visitors can be linked to an employee if that employee really is registered to be present on site.

The challenge of using an access control system for visitor management purposes, is to find a system that offers sufficient visitor management features. Our expectation, however, is that suppliers of modern systems for security and access control will be able to offer from a functionality point of view what you as an organisation are looking for in both visitor and security management.