C4 Benefits Part 1

Hi Everybody, Welcome to the human soul of your security engine.

In this lesson, we will talk about the primary benefits that the C4 System brings to its users in various areas of building security management.

Buildings monitored by security systems often go through additional construction modifications or changes to the installations.
How much does your security system reflect the actual state of your installation?

One of the biggest challenges in operation of a security system is to ensure, that it accurately represents the real state even after performing construction changes. The C4 System was designed in a way which makes implementation of changes as easy as possible, even for an employee with only a basic training.

The visualization itself is based on a hierarchical structure, which divides the entire installation into small visualization blocks. This allows to visualize only the specific part of the building in which we need to make changes, and these changes can be performed quickly.

In the C4 System, the integration and configuration of devices is separated from the graphical representation and visualization of devices. The integration and configuration are performed by highly specialized engineers. On the other hand, the visualization, in which the integrated devices are placed within a visualization block, can also be done by a graphic designer or another employee who has completed a basic training. This person doesn't need to have technical knowledge regarding the configuration and operation of individual items, but deals solely with their graphical placement within the visualization of the particular part of the building.

One of the important areas of security management is central administration of employees, suppliers and other persons moving within the monitored premises.

How much time does it take you to enroll a new employee into all your security systems, or to delete records of an employee whose employment has been terminated?

The C4 System enables clear and efficient management of persons within the organizational structure of a company.
Using this structure allows us to significantly simplify the management of access permissions within the C4 System.

For each employee are registered all identifiers, which are used for access rights. The most common types of identifiers are cards and codes, but biometrics are being used more and more as well.

Subsequently, we assign permissions to the particular person across all access systems, at the level of doors, ramps, or elevator floors, as well as within alarm systems, at the level of alarm groups.

All these settings for a particular person can be defined within a single application for all systems.

The employees responsible for assigning access rights don't have to deal with the technical details, such as which doors are used with a particular type of identifier. The C4 System takes care of these technical details automatically. The access administrator can fully focus on correct configuration of access settings.

That is because the C4 System automatically distributes identifiers to individual access points. Whether the doors open using a card, a fingerprint, or a PIN code was determined during the system installation, when a card reader, a biometric scanner, or a keypad was installed to the doors.

The benefit of the organizational structure of the company can also be used when configuring accesses for entire organizational units, such as departments or the entire company. All settings for individual groups are automatically inherited and reflected on their members as well.

This feature of the C4 System brings significant benefits to customers who use it for personnel data synchronization, when new employees or employees who have terminated their employment are synchronized into the C4 System from an

external HR system. Consequently, the C4 System allows for automatic synchronization of these settings with individual security systems.

Managing different security systems is often a challenging process in terms of time and personnel requirements. How difficult is it to train operators for individual systems?

When managing different security system technologies from various manufacturers, it is important for the user to have a clear overview of the operations they can perform in each part of the application. The main benefit of the C4 System is the unification of control and management of systems from different manufacturers on a single screen, as well as unification of control across the entire application.

The C4 System allows the user to use all available functions in any part of the application. Through the use of icons, it unifies the graphical representation of different device types. This way it is possible to do the same operations on the same icon representing a specific device, in various sections of the C4 System.

The C4 System includes a device management module which is mostly used by engineers. It provides information about all connected devices on a single screen. Within this module, engineers can configure and connect individual devices to the system. They can control them directly from this module too. It is also possible to monitor the device statuses, as well as events that occurred on them.

The range of commands available for individual device types is always defined by the developer who integrates the device into the C4 System. The administrator then restricts the scope of these commands according to the logged-in user.

All the operations that can be performed by an engineer within the device integration module, can also be performed by an operator within the visualization and monitoring module. Both of them have access to the same items represented by the same icons, on which they can perform the same operations. They can control devices, monitor their statuses, and receive events from them. Wherever a door icon appears, it is possible to unlock it. Wherever a detector icon is displayed, it is possible to bypass it, and wherever an alarm area icon is shown, it is possible to arm it. This applies to all types of devices in every part of the C4 System, where such devices are displayed.

Investments in purchasing security devices are usually huge, and therefore we have high expectations for their return.
How difficult is it for you to obtain information from individual security systems, for their subsequent evaluation?

The C4 System collects a large amount of information from all connected devices, as well as information about all user activities within the C4 System. This information is stored in a central database and provided to the user in different parts of the system, depending on which of them is currently relevant to the user.

When dealing with such a large volume of complex information, it is very important that the system provides it to the users in a clear and simple way.
The C4 System is actually one big reporting system. In any part of it, it is possible to obtain information from the central database, according to the area which the user currently deals with.

In the C4 System, it is possible to look at the same information from different perspectives.

For example, let's take the information, that a person called Frank Lu passed through the door 1. We can see this information when we display all activities of the person Frank Lu. Also, we can use the hierarchical structure within the C4 System to display the activities of all employees of the company, among which we will also find the activities of employee Frank Lu.
The tree with hierarchical structure displayed on the left side serves as a filter for viewing the same event from various perspectives, for example from the point of view of a person, the door they passed through, the entire company, or the region in which they moved.

An important aspect in monitoring the status of security systems by operators is how quickly we can evaluate critical situations. How much time do you need to properly evaluate the current security situation and to make the right decisions?

Thanks to the centralization and unification, the operators have access to all technologies and security systems, in order to evaluate a security incident.

Within its hierarchical structure, the C4 System always provides the user a general overview of the situation that has occurred. If the system evaluates it as critical, it automatically guides the operators to the area where it happened, and provides them with all available information from the technologies located in the area.

If there is a camera system installed in the building, the operator can simply click on the camera in the visualization block, and get a live video which will help him to evaluate the situation in the area. In this case, the operators don't need to see information about the type or manufacturer of the camera. They just need to quickly get the picture from the relevant camera.
As a part of comprehensive technology management, the C4 System enables to logically pair the cameras with particular technologies, so that they can be used to evaluate the incident as quickly as possible.

Once the operator resolves the critical situation, it is possible to remotely control the security systems or to put them back into the monitoring mode.

Afterwards, the operator can process the incident formally. Incidents are often handled in the form of an operator's log. In the case of the C4 System, all activities of the operator related to the processing of the security incident are recorded within the incident management module and stored in the central database for future analysis.

We often encounter situations when a security incident happens outside of working hours, and the implementation of additional security measures to improve general safety is carried out in the following days.

How quickly can you gather all the information from your security systems, for an overall evaluation of the security incident?

When analyzing an incident, it is important that all the information is provided in a way which enables to properly evaluate what happened within the particular incident.

As mentioned before, the C4 System displays the events in the context of the module in which the user works.
In the Regions module, users can obtain information about all activities across all systems within the particular region. If an incident occurs in this region, it is

displayed in the context of all activities of the devices within that region, as well as in the context of all activities of the operator who handled the incident.
Since the C4 System synchronizes the time on all devices, all events are sorted in the order how they occurred. This allows the C4 System to give us a comprehensive picture of how the situation happened.

In the case of camera systems, the C4 System allows to pair the video recording from a camera in the specific region with an event from another device. Let's take an example of an alarm event on detector 3. Based on the time of this event, we can request the corresponding video recording from the camera assigned to the region. If such a video recording exists, the C4 System displays it to the users with a certain time advance, so that they can see the circumstances preceding the incident.

This information is used for overall evaluation of the security situation and determining additional security measures that need to be taken.

The C4 System requests video recordings from the DVRs. They provide them in accordance with the policies for example about personal data protection or other internal restrictions, which are set within them.
For example, if it's defined in the video system that the recording can be stored for a maximum of 10 days, the C4 System can provide the customer only with the recordings that are up to 10 days old, too.
Thanks to this strategy, it is sufficient to set the rules for personal data protection only in one security system. Another advantage of obtaining video recordings directly from the DVR, instead of duplicating them, is that the customer doesn't need to have multiple disks due to the large volume of data.

We have presented the benefits arising from the basic concept and features of the C4 System. In the next lesson, we will explore the benefits brought by the new modules of the C4 System.