

Success-Story

Migros Verteilzentrum Suhr AG: Logistics provider of Swiss supermarket giant relies on internet-based video surveillance made in Germany. What started as a bid for an analog solution became a network-based CCTV project. The logistics business unit of the Swiss Migros group, Migros Verteilzentrum Suhr (MVS) implemented SeeTec's surveillance solution to monitor its technical processes in the logistics and warehouse area.

Migros Verteilzentrum

► The challenge

Migros is the leading retailer in Switzerland, operating supermarkets and malls across all Swiss cantons. In 2002, the Migros group opened its new centralized distribution center in Suhr. This hub store ranks among the largest high-performance warehouses in Europe, ensuring on-demand delivery of dry foods for more than 590 Migros points of sale.

Up to 250 trucks and 60 freight wagons leave the MVS every day for their destinations, while another 100 trucks and 80 arrive with fresh goods. To ensure timely delivery of the goods on standardized EURO pallets, the MVS operates an automated transport system that covers the entire logistics area of 80,600 square meters. While the system operates reliably and efficiently, the high volume of turnover means that it is still possible for failure situations to interrupt the flow of goods. Given the size of the MVS and the complexity of its processes, detecting and troubleshooting an error and getting the system back to normal operation is rather time-consuming and costly. The MVS therefore decided to implement a video surveillance (CCTV) solution and to use cameras to monitor the flow of goods at critical points. This would allow MVS staff to localize and troubleshoot failures more swiftly. As an extra benefit, the images from the cameras could be used to analyze and optimize current processes.

► The solution

Die Anforderungen seitens des MVS waren zunächst aMVS's initial requirements stated a traditional video surveillance system with analog cameras, coaxial cable and a dedicated recording device. In response to MVS's call for tender, the Swiss IT systems service provider eltel ag from Buchs in the Swiss canton of Aarau submitted a bid, thereby competing with several installation companies. In early 2006, the company had become a distributor of SeeTec's leading network-based video surveillance solution. (SeeTec is a Germany-based software manufacturer who also opera-

tes a Swiss subsidiary in Luzern.) eltel's move towards CCTV turned out to be a lucky one: the company was now able to enter a profitable market in a short time and offer a more comprehensive range of services to its customers. From a technical point of view, an IP-based CCTV system hardly differs from a standard IP network installation with PCs. There are, however, considerable differences between analog and IP-based video surveillance. IP-based systems are highly flexible — IP cameras are simply connected to the network (which often exists already). The CCTV management software detects the new camera and allows the administrator to enter any specific settings from his desktop PC. The actual location of the camera is irrelevant — it can be in the same building or at a different site altogether. Adding a camera to an analog system would require the installation of a new coaxial cable from the camera to the closest amplifier or recording device. Consequently, the networking of multiple sites with analog technology requires a considerable amount of effort and is very expensive.

Jürg Marti, Sales Director at eltel, quickly spotted the potential benefits of a network-based CCTV solution and presented the decision-makers at MVS with an innovative approach. "Since the modern MVS building is already equipped with an IP network, any extensions that may be required could be installed in the existing control cabinets. An analog CCTV system, on the other hand, would require the introduction of an additional system with entirely different technology." Also, many IP cameras support Power over Ethernet (PoE), so electric power supply was another area of savings potential. The unique flexibility of IP technology allows us to reposition or add camera locations easily and at any time, and thus respond to new customer requirements in a cost-efficient manner, says Jürg Marti. The software offers intuitive functions such as a map of the site providing interactive access to all cameras connected to the system, a multi-monitor view,

MIGROS

Project specifics:

Migros Verteilzentrum Suhr AG
(Switzerland)

Facility type: Distribution center

Number of cameras: 32

Requirements: Future-proof and flexible system.

SeeTec
network-based video surveillance

personalized visualization settings, image searches based on date/time, event or camera, and finally a patrol feature that can be used to visualize a defined sequence of camera images on the monitor.

automatic deletion of alarm images or individual cameras can be based on the users' requirements

▶ The customer

According to Daniel Urech, "The SeeTec system proved its worth in a very short time." We can now detect and resolve failures in the transport system considerably faster than before. Our members of staff are able to identify critical situations more quickly and take appropriate action. Any events preceding the failure can be traced back using the stored images. This allows us to find out what caused them and to optimize our processes accordingly. Plus it saves costs. The software is intuitive and easy to operate for our staff. After receiving project-specific training on the SeeTec solution from eltel, the system administrators at MVS now take care of the software and camera settings themselves.

"Our decision to offer the SeeTec solution to our customers was absolutely right. A key point in favor of this system is its open platform which allows us to combine cameras regardless of the manufacturer."

eltel's Sales Director is thrilled by the success of this large-scale logistics project: "Our decision to offer the SeeTec solution to our customers was absolutely right. A key point in favor of this system is its open platform which allows us to combine cameras regardless of the manufacturer." Even though the current system uses AXIS network cameras, MVS will be free to choose from a wide range of supported devices. According to Jürg Marti, a project such as this can only run smoothly and ultimately succeed if the

"Follow-up costs for modifications or extensions are low. The technology is very future-proof."

▶ The result

This array of benefits finally tipped the balance in favor of a network-based solution: "Follow-up costs for modifications or extensions are low. The technology is very future-proof", explains Process Control Manager Daniel Urech who is responsible for continuous improvement and was part of the decision-making team. Another

important aspect was the exclusion of sensitive areas, such as workplaces or break rooms, from video surveillance. Privacy for these areas was achieved by instructing the cameras to record the relevant portion of the image as black. This method also makes it impossible to post-edit or manipulate the images. Nonetheless, staff and visitors are still informed by appropriate signs that they may be observed by CCTV cameras.

The new SeeTec system was installed within a mere two weeks and has been up and running since July 2006. It features 32 AXIS 210A type network cameras, which can draw power over Ethernet (PoE). The cameras are enclosed in a weather-proof casing for dust protection.

In order to avoid overloading the corporate network, MVS's requirements specified a logically and physically separate network for the transport of video data. eltel therefore installed a second network using the existing control cabinets. Data from the cameras' network lines are collected at five locations across the distribution center. From there, the data are transferred to a RAID-5 server with a storage capacity of 900 GB. This server not only hosts the data but is also the heart of the system: the SeeTec Server Software. The network has been dimensioned to accommodate future extensions and thus provides a bandwidth of 1 GB/sec between the individual data collection points and 100 MBit/sec for each camera connection. A client software program, which is installed on the workstation PCs, is used to visualize the video data.

A central CCTV panel was installed in the control room of the logistics system. This workroom is staffed with several employees who keep an eye on a multi-monitor setting with four screens. Three of these screens show four individual cameras each, while the last screen displays large-scale images of a predefined patrol. Images are stored for a week, after which they are automatically deleted. Defaults can be set to define the maximum storage period, and thus

personalized visualization settings, image searches based on date/time, event or camera, and finally a patrol feature that can be used to visualize a defined sequence of camera images on the monitor.

Products

Migros Verteilzentrum Suhr AG
(Switzerland)

- ▶ SeeTec 5: Server software with clients
- ▶ AXIS: Network cameras (model 210A) with weather-proof casing for dust-protection. The cameras are powered via Power over Ethernet (PoE).

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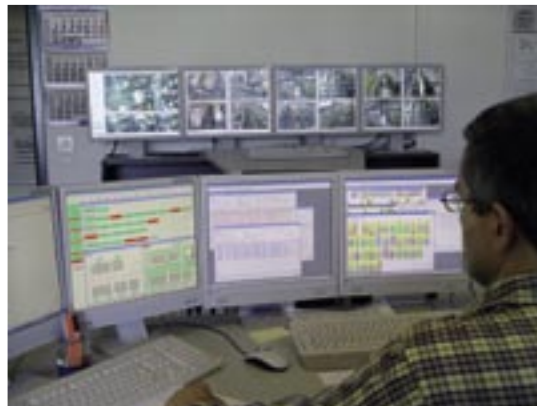
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The central CCTV panel



Keeping an eye on processes

IT department is actively involved in the process from the very beginning. This becomes particularly evident in a case such as MVS's where the project was approached merely from the "hardware" side by suggesting analog technology. Daniel Urech also emphasizes that the final decision must have the support of everybody involved. And he anticipates that „the existing CCTV system is likely to grow through further enhancements and in response to the MVS's future challenges and requirements“.