

Video surveillance in Lestra department store: Security with added value.

Bremen department store reduces inventory discrepancies and optimizes customer flow with Axis network cameras.



Organization:
Lestra Kaufhaus GmbH

Location:
Bremen, Germany

Industry segment:
Retail

Application:
Loss prevention, safety
and security, merchandising
and operations

Axis partners:
artec technologies AG,
Elektro Feldmann GmbH

Mission

Since 1970, the Bremen department store Lestra has been supplying customers in the university district and beyond with a wide range of food products, household goods and health and beauty products. The store services 3000 to 6000 shoppers each day. The video surveillance system from the 1990s was showing its age and had a few drawbacks. As a result, recordings were limited and only available in time-lapse mode and the images did not provide the required level of detail.

Solution

Lestra opted for a new video surveillance system with IP-based cameras from Axis Communications. Over 100 Axis network cameras have been used to cover the 3000 square meter floor space of the store. A mixture of different camera models has proven to be particularly useful here. "A relatively broad overview is all that is needed for the aisles and the stockroom so that when there is an incident, we can see what actually happened. For areas such as the checkout counters, detail is important. Here, we use Axis cameras with 5-megapixel high resolution so we can catch shoplifters and thieves in their tracks," says CEO Cornelius Strangemann.

In addition, Lestra now uses the video images to analyze how customers move through the store, enabling them to gain valuable insights for marketing and product presentations.

Result

"The technical compatibility of the Axis cameras is superior to anything else available on the market," emphasizes Cornelius Strangemann. "What's more, they are highly durable with few technical problems. We've had excellent experience with them here thus far." Because the Axis cameras can send multiple streams simultaneously, the recording server and the various display stations can be operated simultaneously without overloading the network. H.264 compression directly in the cameras also relieves the load on the server. One of Lestra's accomplishments is use of the customer flow analysis to produce a clear increase in the sales of stationery by changing product presentation. Based on the analysis, shelf heights were lowered and the area was visually enhanced – with considerable success.

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When Cornelius Strangemann's mobile phone alarm goes off in the middle of the night, he can find out what is happening in his store from the comfort of his home. The lights in the Lestra department store come on automatically and the surveillance system sends images of the affected area right to the CEO's mobile phone. This quickly provides him information on whether someone is breaking into the store, whether there is a fire or whether the motion detector has simply triggered a false alarm. The alarm function with remote access is part of the video surveillance system with over 100 Axis network cameras. However, the focus is on more than just the safety of employees and customers. Using a feature called heat mapping, Lestra can also map out which areas of the store are more popular and how often they are visited. Lestra uses this information to optimize the presentation of products in the store. Lestra is a medium-sized family enterprise with about 180 employees. The store services 3000 to 6000 customers a day and also utilizes the services of, for example, the bakeries, locksmith and flower shop that are also housed in the department store.

Details down to the megapixel

"By modernizing our video surveillance system, we expect to gain three advantages in particular," explains Lestra CEO Cornelius Strangemann. "We needed cameras with a high resolution in order to catch abnormalities at the checkout counters. We also needed recordings in real time to enable us to investigate incidents that happened in the past, such as when inventory discrepancies are found. Finally, remote access was important so we could quickly check the situation in the event of an alarm."

Close collaboration with employees

Lestra management developed the video surveillance concept in close collaboration with the store's employees. In addition, the surveillance was designed to be extremely transparent internally. Via special display stations, employees can see what is being monitored. This openness allows employees to view and track how shoplifters and thieves behave on the way to the check-out counter.

"It has been such a great help that some of our cashiers are requesting the installation of additional cameras," says Cornelius Strangemann. "We consider it vital to be open when it comes to the topic of surveillance. Our employees know where the cameras are and what purpose they serve. As a result, the employees have accepted this new system much more readily than they accepted the old, analog one."

Increased sales by analyzing customer flow

Lestra also uses the most comprehensive video recording of the department store to analyze how customers move about through the store. To achieve this, the system uses software to create heat maps that use color marking to illustrate the concentration of customers in specific areas of the market – similar to thermal imaging. Using such analyses, store management gains valuable insight that can be used for marketing and product presentation. This has had a marked impact on business. For example, it has enabled Lestra to increase stationery sales significantly by changing product presentation. "Visually, the stationery area is located in the center of the store. The heat mapping analysis showed that there was too little customer movement in this area and that most customers took routes that bypassed this area," explained Strangemann, "so we lowered the shelf height and visually upgraded the area – with considerable success."

Integration in complete building management

Lestra is currently working to incorporate video surveillance into intelligent control of the entire store. A step in this direction is to network cameras with motion detectors and alarm systems. These would make it possible to call up surveillance images remotely in the event of an alarm. In the future, the plan is for Lestra building management to include energy management and automatic control of temperature, ventilation, cooling systems and the like. "In the future, we will be able to control everything related to power supply", explains Strangemann. "Video surveillance with Axis cameras is an important part of this system."

