

# Labor-saving and contract-free applications at Daimaru Matsuzakaya department stores with Axis end user solutions.

Panoramic cameras that leave no blind spots and a management system with superior operability offer improved safety and reduced labor inputs.



**Organization:**  
Daimaru Matsuzakaya  
Department Stores Co., Ltd.

**Location:**  
Sapporo City, Japan

**Industry segment:**  
Retail

**Application:**  
Safety and security, crime  
prevention

**Axis partners:**  
Chukei, Inc., Toshiba LE  
Solution Corporation

## Mission

The Daimaru Sapporo store is a symbol of Sapporo itself, but the issue of minimizing blind spots in its space had become a problem. Approximately 180 PTZ cameras had already been installed, but these were only able to provide coverage of specific locations. This left many areas that could not be monitored, not only within the store but also in areas such as the parking lot and the escalators. When the time came to replace these units, a proposal was submitted by Axis partners Chukei, Inc., and Toshiba LE Solution Corporation. The result was a renewal of the system from a fresh, camera-centric perspective. In addition, the site included three restaurants using charcoal as fuel. The client requested an efficient means of preventing fire after the restaurants closed each day.

## Solution

The new system consists of a total of 270 network cameras, including AXIS M3057-PLVE panoramic models. This solution achieves approximately four times the visual coverage of the previous system, and leaves no blind spots. In the area around the escalators, there had been particular concern about emergency stops.

The existing PTZ cameras were replaced with panoramic cameras installed to monitor the top and bottom of the escalator respectively, permitting the entire slope to be covered. AXIS Camera Station was deployed to ensure a smooth operating experience for the system as a whole. For the restaurants that used charcoal, a system consisting of two AXIS Q2901-E Temperature Alarm Cameras was set up. These raise the alarm if a temperature that exceeds the setpoint is detected.

## Result

The system fulfilled Daimaru's most important request, namely the minimization of blind spots. It not only monitors but also protects the safety of customers. It is in the parking lot that the range of coverage has been most enhanced as a result of the introduction of panoramic cameras. In addition, the installation of the temperature alarm cameras has enabled the early recognition of cases where heat sources in the kitchens have not been properly dealt with, and the raising of alerts to the crime prevention center. Going forward, the system is expected to be extended for labor-saving, unmanned, and contact-free applications.



## Background to system deployment and related details

Daimaru Sapporo is a department store with eight floors above ground, one below ground, and a total floor area of 45,000m<sup>2</sup>. It also has a parking lot with three floors underground. Efficiently monitoring every nook and cranny of this vast store thronged with customers had been an issue for management for many years. The desire to minimize blind spots was driven not only by crime-prevention concerns, but also by the need to protect customer safety. Compared to the sales floors, where staff are always present, the escalator areas and the parking lot tend to be out of sight of other people. Children and dropped items can cause emergency stops for the escalators. And, in the parking lot, minor collisions between customer vehicles sometimes occur. The store feels that it is important for security guards to be able to detect danger as early as possible, and to provide the first response, as appropriate.

## Tracking movements

As a solution to minimize blind spots, Chukei, Inc. and Toshiba LE Solution proposed the use of panoramic cameras that enabled a 360° field of view to replace the PTZ models, with a 90° field of view, that had previously comprised the great majority of cameras. Initially there was some confusion caused by the spherical view and the new interface, but the benefits of AXIS Camera Station's intuitive operation were quickly understood by users. They were particularly impressed by the speed and exceptional simplicity with which it was possible to check a desired location using only the mouse.

Another area where the system scored highly was the ability to track the movements of a specific person seamlessly between frames and with an easily grasped field of view, in contrast to the two-way split or four-way split of the previous system. This resulted in the number of panoramic cameras installed being increased significantly over the number initially planned.

During installation, special care was taken with the external appearance, as one might imagine from a department store. In-store cameras in locations visible by customers were all panoramic units, and these were embedded in the ceiling so that they did not protrude. Conversely, AXIS M1124 fixed cameras were used in staff areas, partly with the intention of providing a deterrent.

Previously Daimaru Sapporo had used only cameras from Japanese manufacturers, and these were the first products from an overseas manufacturer that it had installed. On this occasion Daimaru Sapporo made the decision not to fixate on domestic products, but to achieve a good balance between functionality and price by basing their selection on objective criteria.

Compared to the existing system, visual coverage was 3.7 times larger, and the performance index on a per-camera basis was 6.8 times that of the previous unit. The ability to present the advantages of the system using such concrete figures was highly convincing.



**“Until now, camera footage was something that was used by security guards. Thanks to the intuitive nature of the controls in this system, facility administrators learned how to use it naturally and also utilize it for inspections and for confirming locations that need repair. We will continue to explore ways to use it more efficiently going forward, such as remote operation.”**

**Tatsuo Kimura, Facilities Manager, Business Promotion Department, Daimaru Sapporo Store.**

“The omnidirectional (panoramic) cameras provide coverage of the store interior in the form of surfaces rather than in points and lines. We thought this should become the standard approach for in-store monitoring in future,” says Mr. Suzuki, Chukei, Inc.

### **Flexible response management**

Until that point camera footage was perceived to be something that was checked by security guards, but now, after installation of the new system, facility administrators have also learned how to operate it. When a response is required urgently it is no longer necessary to move to the location in person, and facility administrators make active use of this functionality. Having experienced the ease of use and performance of the Axis solution has opened their eyes to the new potential of the management system.

Until now, detection functions have been performed by separate devices, such as passive sensors, and reception functions have been performed by humans, but staff are now looking forward to consider whether such operations might not be incorporated into Axis cameras. Motion detection is also being considered as a labor-saving solution, but detection during the hours of darkness had been an issue.

However, the AXIS M3057-PLVE Network Cameras that have been installed are equipped with the OptimizedIR infrared solution, so it is likely that this functionality will also be implemented before long.

### **Contact-free operations**

Furthermore, from the viewpoint of there being operations that could be performed remotely without the need for people to be permanently stationed in that location, the use of interphones and interactive communication via cameras might make it possible to deal with the unpacking of deliveries and delivery staff from remote locations, depending on the time of day.

Meshing with the need for unmanned and contact-free operations that has been driven by the COVID-19 pandemic, this trend is beginning to accelerate further.

Although installation has been completed, rather than stopping, the Daimaru Sapporo store solution will continue to evolve. Lively discussions between facility administrators continue on the subject of how the recently installed system can be used effectively to provide new value in labor-saving, contact-free and other applications. It will be interesting to see what new form will be taken by department stores in the “new normal” of the post-coronavirus era.



**DAIMARU**

**CHU KEI チュウケイ株式会社**

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# About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, intercom and audio systems. Axis has more than 3,800 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Axis was founded in 1984 and has its headquarters in Lund, Sweden.

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