

# AXIS Tailgating Detector supports unmanned operation and customer service at 24-hour sports gym.

Implementing a high-deterrence system by combining Axis audio solutions with AXIS Camera Station.



## Organization:

Sanpuku Holdings Co., Ltd.  
("P-SP024")

## Location:

Matsuyama City, Japan

## Industry segment:

Retail

## Application:

Tailgating detection,  
remote surveillance, voice  
alarm activation

## Axis partner:

WIN Co., Ltd.

## Mission

The P-SP024 chain of 24-hour sports gyms, operated by Sanpuku Holdings Co., Ltd., currently has 15 branches, mainly in Matsuyama City, Japan. Half of the branches are unmanned, and because staff are not always present at nighttime even in the manned branches, it was necessary to implement a reliable and efficient means of serving customers and preventing crime during these times. Previously, the company had used vein pattern recognition for member access control, but the cost per branch of deploying this system was high, and there were limits to the number of members it could handle. For that reason, following an increase in the number of branches and members, the company began investigating the opportunity presented by the deployment of a new system to implement detection of "tailgating," whereby multiple members enter the facility simultaneously. Such a system would prevent incursions by suspicious individuals, as well as improper use by people who are not members. It would also allow the company to reliably obtain a more accurate understanding of usage times for individual members.

## Solution

WIN Co., Ltd. suggested a solution consisting of a face recognition system combined with AXIS Tailgating Detector and an AXIS C1410 Network Speaker, a proposal that was adopted by the company. In the event that tailgating is detected, a snapshot is taken by an AXIS M3064-V Network Camera and transmitted via AXIS Camera Station to staff by email. At the same time, a pre-recorded voice message such as "This customer has not been registered" or "Please enter one at a time" is played over the speaker in order to notify the customer. Because staff can check the images remotely, they proceed to the branch itself only if required. This system enables an efficient approach to management that allows staff to focus on customer service.

## Result

Previously, a buzzer was used to alert customers when tailgating was detected, which meant that it was not possible to convey clearly to them the reason for the alert. The new system enables customers to be given a polite and specific voice message to notify them of the situation.

**“When viewed from the perspective of customer-centric operations, voice announcements also lead to improved service, and in addition we feel it is useful in deterring improper use. We hope to utilize these functions for a variety of other applications going forward.”**

Kohei Murakami, Director & General Manager of SP Wellness Business Division, Sanpuku Holdings Co., Ltd.

Furthermore, because the customers also become aware of the reason for the alert, it is reported to have a noticeably greater deterrent effect than was previously the case. In order to find ways of working with the “new normal” in which a non-touch approach is recommended, P•SPO24 is currently investigating further uses of network audio systems in its daily operations, and these are likely to be implemented in the near future. It is expected that society will increasingly demand branches with unmanned operation that enable customers to avoid contact, while keeping them safe and maintaining a high level of service.

### System deployment

In order for P•SPO24 to operate 24 hours a day, access control and safety measures are essential during the nighttime, when the facilities are not manned. With the number of members continuing to rise to nearly 6,000 people, and with the company developing the franchise business, it had become necessary to deploy a new system. One requirement was for a general-use system that was fully capable of handling future extensions to functionality. The solution proposed by Axis partner WIN Co., Ltd. was a face recognition system allowing for 30,000 registrations, and a combo of AXIS M3064-V Network Cameras with tailgating detection and AXIS C1410 Network Mini Speakers. In relation to the adoption of Axis products, P•SPO24 had already deployed Axis thermal cameras in branches, and had therefore verified the reliability of Axis solutions. In addition, compared to the previous system of vein pattern recognition and tailgating detection, both the initial costs and running costs were lower, with the deciding factor in system selection being the capability, when extending the system, to easily change settings in the AXIS Camera Station video management software.

Each branch has a face recognition camera set up at the entrance and exit, which checks whether each person is a member as they enter and leave the facilities. In cases where tailgating is implemented, detection is provided by AXIS Tailgating Detector incorporated into the cameras.

When tailgating is detected, an event is sent via AXIS Camera Station from another camera set up to monitor a different angle. An image is then sent to branch staff. At the same time, a message is played from the speaker to warn the customer. AXIS Camera Station is installed in every branch, and is set up so that video can be checked at one of the six manned branches connected by VPN.

“The installation conditions in the area of the door varied depending on the branch, and in some cases it was impossible to accurately detect tailgating using the same settings, so we needed to devise more effective zone configurations, and so on,” comments Hitoshi Ueno of the IT Solutions Business Division of WIN Co., Ltd. Moreover, some branches are combined with golf simulation facilities, and there were cases where members carrying golf bags on the shoulder were thought by the system to be tailgating, and that required the detection range to be set up with this point in mind.

The ease with which the system settings can be changed has contributed to the flexibility of branch operations. “When we have internal training and other events, large numbers of staff need to enter the premises at the same time, and it is inconvenient to have the tailgating warning sound for each. At such times, we have found it easy to temporarily disable tailgating detection, or to turn down the volume of the speaker. Previously, the only option was to turn off the main power supply, so this has been extraordinarily useful,” says Kohei Murakami, Director & General Manager of Sanpuku. Going forward, the company plans to use the scheduling functions of the network audio system to deliver specific messages, depending on the member. For example, it is currently verifying various options, such as making announcements that encourage student members to leave the premises after 10 pm. Moreover, the AXIS tailgating detection functions in the new system have enabled the collection of more accurate data on the usage times for individual members.



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