Fewer false alarms reduce costs and improve security.

Axis network radar detector solution delivers enhanced building protection.



Mission

A large shopping centre in Stockholm, Sweden, was having issues with an increased number of attempted burglaries by people climbing up its façade and entering the roof, as well as false alarms being triggered by animals such as insects and birds moving in the protected area. Staff have also accidently triggered alarms.

False alarms have resulted in many unnecessary – and very costly – call-outs. The shopping centre wanted to stop unauthorised intruders as well as reduce the number of false alarms. It was also important for the shopping centre to ensure a safe and secure shopping experience for its visitors.

Solution

The shopping centre engaged system integrator InSupport. Alongside Axis Communications, its team installed an IP-based radar solution, AXIS D2050-VE Network Radar Detector, to complement the existing surveillance solution that already featured innovative Axis IP cameras and perimeter protection technology, as well as video analysis from Digital Barriers.

Result

Intruders entering from the façade have largely disappeared and the number of false alarms has fallen dramatically. The shopping centre has saved hundreds of thousands of Swedish crowns per year on call-out costs alone from security companies. Furthermore, the team utilising the system has expressed how effective the radar technology has been at delivering the desired results.

Organization: Shopping Center

Location: Stockholm, Sweden

Industry segment: Retail

Application:

Anti-theft surveillance, radar detection, remote monitoring, safety and security

Axis partners: InSupport, Digital Barriers



Need for more secure shopping environment

The large shopping centre, located in Stockholm and with millions of visitors a year, has had problems with burglars entering from the façade and roofs. In addition, birds and insects moving within the monitored and protected area have triggered many false alarms. On occasion, even bushes and shadows have triggered false alarms. The shopping centre also had problems with people climbing up its façade "for fun", and therefore wanted to improve the surveillance of the building's outer walls.

The shopping centre wanted to improve the protection of the building, its assets, its employees and its customers. The unwelcome façade climbers and false alarms meant that the shopping centre needed the means to detect events vertically along the façade. At the same time, the shopping centre did not want an alarm to be triggered when people walked past the building on the pavement and the street. The shopping centre was protective of its brand; it wanted to be perceived as a safe and secure environment, without disruptions and intruders.

Reliable intelligent solution

System integrator InSupport Nätverksvideo, specialising in fully digital network video solutions, installed an IP-based radar solution, AXIS D2050-VE Network Radar Detector. The radar complemented the existing surveillance solution that included Axis security cameras AXIS Q1615-E and perimeter protection with video analysis from Digital Barriers Safe Zone edge / AXIS Perimeter Defender. InSupport envisioned great benefits with a radar solution.

"Radar technology is accurate, it can be set very precisely for how and when the alarm should be triggered," says Fredrik Westin, CEO of InSupport.

In contrast to a camera that measures pixels in an image, the radar physically measures the actual object in the area under surveillance. Radar can measure the exact position as well as the velocity and direction of the object, compared to video analysis that measures this via the image from a camera.

Other advantages of radar for façade surveillance include the possibility of specifying alarm limits at a certain height above street level. A limit of three metres above ground level, for example, means that people can move freely below the alarm limit, passing by as usual at ground level without triggering the alarm.

It is also difficult to tamper with a radar solution compared with cameras, which can be manipulated and disrupted by intruders to prevent monitoring. As soon as the radar detects an object, the cameras connected to the security solution start recording images from the area where the alarm was triggered.

"Radar detection is suitable for shopping centres as well as other types of buildings at risk from intruders on façade and roofs, especially if you want to avoid triggering an alarm if someone passes by at ground level," adds Fredrik Westin.

However, using radar requires a thorough analysis of customer needs and a precise installation, where the radar is calibrated correctly.

"It is extremely important that the customers examine the purpose of each camera in a specific installation so that they get the solution most suitable for the requirement. It also demands expertise from the installer, as it involves complicated solutions and complex technology," says Carl Staël von Holstein, Key Account Manager, Northern Europe, Axis Communications.

Easy and convenient installation

Like other technologies from Axis, the radar detector is based on an open platform and easy to integrate with a customer's existing IT systems.

"AXIS D2050-VE is easy to install, scalable and futureproof. It is easy and safe to work with other Axis products; they are sound, stable, and reliable, as well as cost-effective, and they maintain very high quality," says Fredrik Westin. "We are also highly appreciative of the continuous support and dialogue we have with the Axis team."

An example of how Axis cooperates with its partners to find appropriate solutions is the wall bracket for AXIS D2050-VE Network Radar Detector. InSupport notified Axis about the need for a wall bracket that allows the radar to be angled to detect vertically along a building's wall. Waiting for Axis to launch a new bracket InSupport, with Axis support, further developed an existing wall bracket and has adapted this to work with the radar to satisfy the customers need.



"Businesses can save a lot of money by reducing false alarms and unnecessary call-outs. Ensuring ongoing service and maintenance can also result in major savings. We noticed that more and more companies are demanding secure operation and secure surveillance as a service. where we guarantee continued operation."

Fredrik Westin, CEO of InSupport.

AXIS D2050-VE Network Radar Detector

AXIS D2050-VE Network Radar Detector has a 120degree horizontal coverage, with a range up to 50 metres, which enables dectection in an area up to 2500 m². Axis radar uses advanced radar technology with intelligent algorithms and is a good complement to video surveillance in situations where it is normally hard detecting objects.

AXIS D2050-VE detects motion and is not sensitive to movement that often triggers false alarms such as birds, bushes and shadows. The user can read out important information such as angle, size and velocity of the moving object, as well as the exact distance, 24 hours a day. A reduced amount of false alarms means lower costs, not least in terms of fewer call-outs of security personnel, who can focus on real threats. Savings are also made by lights illuminating when something is detected, so there is no need for continuous lighting at night in and around the premises under surveillance.

AXIS D2050-VE is a perfect complement to Axis IP cameras in a solution, to minimize the amount of false alarms.

With AXIS Radar Autotracking for PTZ cameras (pan, tilt, zoom) installed on a PTZ camera from Axis together with AXIS D2050-VE, visual verification of an alarm is enabled, and allows the operator to follow a moving object located in the coverage zone of the radar detector.

AXIS D2050-VE is fully integrated with AXIS Camera Station, and video management systems from our partners. Since it is based on an open platform, it is also easy to integrate with a customer's existing IT systems.

In contrast to a camera that measures pixels in an image, the radar physically measures the objects in the area under surveillance. Radar can measure the exact position as well as the velocity and direction of the object, because high frequency radio waves are used to detect motion.

AXIS D2050-VE uses Power over Ethernet which supports quick and easy installation with a single cable, the robust and weatherproof casing can handle temperatures from – 40 °C to + 60 °C.

"We are careful to listen to market demands, such as the need for product modifications," states Carl Staël von Holstein.

"The close cooperation with Axis, where we combine to develop solutions to best respond to customer needs, is one of the benefits of being a development partner of Axis and something we value very highly," says Fredrik Westin.

Major cost savings

The shopping centre is delighted that unauthorised intruders and the number of false alarms are now largely non-existent. The savings amount to hundreds of thousands of kronor per year just from reduced costs for calling out security personnel. "Businesses can save a lot of money by reducing false alarms and unnecessary call-outs. Ensuring ongoing service and maintenance can also result in major savings. We noticed that more and more companies are demanding secure operation and secure surveillance as a service, where we guarantee continued operation," says Fredrik Westin.

"We've also identified that customers want reliable support over a longer period of time. In general, they have a longer-term perspective than they previously had," says Carl Staël von Holstein.





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, and audio systems. Axis has more than 3,000 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Founded in 1984, Axis is a Sweden-based company listed on the NASDAQ Stockholm under the ticker AXIS.

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