Axis network cameras provide security at Sakhalin Ice Arena.

New full-scale surveillance installation helps law enforcement authorities and enhances arena safety.

Organization:
Kristall Ice Arena

Location:
Yuzhno-Sakhalinsk, Russia

Industry segment:
Stadiums and venues

Application:
Safety and security

Axis partners:
Kriljon Service, ITV

Mission

The one and only task the client set for the installer was to create an integrated security system at the new Ice Arena site in Yuzhno-Sakhalinsk. Like any sports complex, the ice arena has a large number of people continuously moving throughout the site. For this reason, the main requirements for the system were: full video camera coverage, high image detail, precise analytics and integration with the entry monitoring system.

Solution

The set objectives demand that the video has high definition, which is why the installer used three HDTV network camera models when designing the system: AXIS Q1604 and AXIS Q1604-E Fixed Network Cameras and the AXIS Q6034-E Dome Network Camera. A total of 140 cameras were installed, both inside the facility and outdoors.

A reliable back end using Cisco equipment was needed to process data from so many cameras. Intellect software from ITV was chosen to analyze images.

Result

The project is now completed. The client received a modern security video surveillance system integrated with the access monitoring and ticket sales systems. Although the arena is new, the video surveillance system has already repeatedly helped law enforcement authorities find people who have committed crimes at the facility.

AXIS
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> "We are pleased with Axis equipment, which we used to build a modern security video surveillance system fully integrated with the access monitoring and ticket sales systems. We are very happy with the combination of excellent reliability, high technical capabilities and ease of installation of the video cameras."
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> Ismail Akhmedovich Ismailov, Kristall Ice Arena Chief Engineer.

Site description

Sakhalin's Kristall Ice Arena was built as part of the region's long-term program for "Development of Physical Education and Sports in the Sakhalin Region for 2010–2018" with support from off-budget sources: funds from Gazprom Transgaz Tomsk LLC.

The ice arena has a 60x30-meter ice rink with stands for 1,526 spectators, aerobics and general exercise halls, a fitness center, canteen, as well as auxiliary and utility rooms. The ice arena is primarily aimed at children. The arena hosts classes for local youths in all types of sports: hockey, figure skating, boxing, weightlifting, gymnastics, competitive ballroom dancing and chess. However, children's sports are not the only use of the new complex. The ice rink hosts performances on ice, concerts, regular-season and Sakhalin Region championship hockey games, as well as Russian championship volleyball games.

Project parameters

Like any sports complex, the ice arena has special security. The large number of visitors, excited crowds during games or concerts, numerous small auxiliary rooms — all of this requires heightened attention from the security service and law enforcement authorities. For this reason, an integrated arena security plan was developed when the facility was still under construction.

Implementation

The three key objectives of the video surveillance system at the facility are: general observation, tracking selected targets and facial recognition. Toward these ends, 98 AXIS Q1604 Network Cameras were installed in enclosed rooms and 27 outdoor AXIS Q1604-E Network Cameras (for observation) and 15 high-speed AXIS Q6034-E Dome Ntwork Cameras were installed outdoors.

In addition, the ice arena has clearly delineated access zones, which can be changed depending on the current event. For example, visitors to a concert or game should not go further than their seating areas; athletes should not enter service rooms for the arena's administration, and so on. This division requires an easily adjustable multi-level access monitoring system, as well as full integration of the access monitoring and control system with the video surveillance system. Another argument in favor of Axis cameras here was the high integrability of cameras using standard open protocols.

One hundred and forty video cameras create a serious load on the network, which is why a separate structured cabling system was installed for the video system to transmit data and to power the cameras via PoE. This helped avoid extra expenses for routing electrical cables to the camera installation sites.

The facility's high traffic requires significant computer capabilities from the analytical back end of the video surveillance system. Furthermore, equipment reliability and dependability are important. For these reasons, the installer and client chose to use Cisco server equipment. Intellect software with analytical functions from ITV was selected as the video management system.

The Sakhalin Region government paid meticulous attention throughout the entire construction of the arena. As a result of the very first system tests, the region's internal affairs authorities approved Axis equipment for use within the "Safe City" program. The outdoor cameras installed at the site will be included in the internal affairs administration's network this year.

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