Modern video surveillance reacts to unusual situations in office center.

Inventive security in Berezka Business Center by key zones surveillance with Axis network cameras.

Organization:
CJSC Moscow Commercial Garment Union

Location:
Moscow, Russia

Industry segment:
Commercial

Application:
Safety and security, situational awareness

Axis partner:
Unimax, Allied Telesis, ITV

Mission

The main objective when planning the video surveillance system was to monitor key zones inside the business center: hallways, elevator banks, reception area, service entrances, etc., as well as the entire surrounding site. The system also needed to be able to record the license plate numbers of vehicles entering the business center site.

Solution

AXIS M3004-V and AXIS M3005-V Network Cameras with a resolution of 1 Mp/HDTV 720p and 2 Mp/HDTV 1080p respectively, were selected for video surveillance inside the business center. AXIS P1355E Network Cameras with P-Iris technology are used for 24-hour video surveillance of the surrounding site.

Where there is no outdoor lighting, AXIS T90A40 infrared illuminators were installed along with the cameras. AXIS Q1604-E Network Cameras were used for vehicle license plate recognition. Video data is recorded on video servers with Intellect software. The AUTO-Intellect software module is used for license plate recognition. There is also a video surveillance post where images from all video cameras are displayed on eight monitors. A total of over 80 Axis network cameras were installed for the project.

Result

As a result, key zones inside the business center and surrounding site have been placed under surveillance, which allows the system to immediately react to any unusual situations.

AXIS COMMUNICATIONS

58722/EN/R2/1408

"Proper equipment selection is the key to achieving the main objective: providing security for the office center's employees. Image quality, video surveillance system ease of use, and fail-safes were the main criteria for selecting equipment. We took a careful approach to selecting the manufacturer, installer and knowledgeable tech support."

Sergei Vyacheslavovich Grigoriev, Chief IT Specialist.

High definition IP video surveillance

AXIS M3004-V and AXIS M3005-V Network Cameras with a resolution of 1 Mp/HDTV 720p and 2 Mp/HDTV 1080p respectively, were selected for video surveillance in elevator banks, hallways and the reception area. In addition to other advantages, these cameras have 3-axis adjustment and Axis' Corridor Format. This format is optimized for video surveillance in tall, narrow spaces, such as hallways or stairwells, and it maximizes the amount of useful data in the frame.

Video surveillance under poor lighting conditions

Providing quality video surveillance in the dark of night using megapixel cameras is currently quite a significant challenge. There are areas with insufficient artificial nighttime lighting around the Berezka business center perimeter. AXIS P1355E Network Cameras were selected to provide video surveillance under poor lighting conditions.

AXIS T90A40 infrared illuminators were installed for some areas. A unique feature of these illuminators is that their optical path angle can be adjusted over quite a wide range. This means that the area illuminated with infrared can be adjusted to match the video camera view field.

License plate recognition

AXIS Q1604-E Network Cameras and AUTO-Intellect software (Uragan Slow-2) were selected for vehicle license plate recognition.

Thanks to Wide Dynamic Range and the latest video image processing algorithms, AXIS Q1604-E Network Cameras can clearly identify license plates, even under changing conditions, such as oncoming vehicle headlights or pronounced contrast.

The AUTO-Intellect software recognizes 288 types of license plates containing numbers and Cyrillic and Latin characters. This is important, since vehicles with foreign license plates may enter the business center site.

Reliable signal transmission

70 high definition IP cameras create significant digital streams and traffic on active cross connect hardware. Under these conditions, it is important to select high-performance, reliable equipment. Additionally, specific features inherent to video surveillance must be considered when selecting equipment, such as the fact that all outdoor video cameras have High Power over Ethernet.

Allied Telesis series AT-X610 high-performance switchboards were selected as a result of engineering calculations. Using stacking modules, all switchboards were connected to form one large virtual switchboard, which results in even greater overall performance. Switchboards were equipped with 800 W power sources in order to provide the outdoor cameras with power via High PoE.