



As Moscow's latest events destination, VTB Arena Park attracts tens of thousands of spectators during concerts and sports matches. The US\$ 1.5 billion project is also a city in its own right, featuring parks, shops, living spaces and a five-star hotel. Providing video security and access control on this massive scale proved a challenge, but not a 'mission impossible' for Bosch.

Securing a 300,000 square-meter urban space

The modern VTB Arena Park is a mixed-use development on a 300,000 square-meter area in the heart of Moscow. It's a showcase for dynamic urban spaces, but also a challenge from a security manager's perspective because of its size: The Dynamo Central Stadium in the middle of VTB Arena Park is home to the FC Dynamo Moscow football club and holds up to 26,000 spectators during league matches. The indoor arena entertains more than 12,000 guests during ice hockey matches, basketball games and rock concerts.

These guests leave once the action is over, but the park also offers permanent retail facilities, residential spaces, and a five-star hotel.

As a result of the mixed uses of its spaces, VTB Arena Park presents a variety of specific security needs. For instance, the on-site security technology needs to provide seamless access to ticket holders during matches and concerts, but it also had to ensure the day-to-day safety of residents who live at VTB Arena Park.



"We were fully aware that the multifunctional character of the VTB Arena Park would lead to complexity that could hardly be topped. We needed integration power, a partner who knew how to bind all loose ends into one solution that had never existed before."

Alexander Kravchenkov, Deputy Head of Security Systems Maintenance Group IT Department at VTB Arena

Supporting security personnel with video analytics

The video security needs of the sprawling premises are diverse, especially during big concerts and sports events. The team required the ability to identify certain individuals – for instance a person in a red jacket – among feeds from several thousand cameras. It was also important to limit access to cameras in certain areas to specific personnel with the appropriate access rights and apply specific settings to single cameras.

Catering to these video security needs, Bosch installed more than 2,000 fixed and moving video cameras – both indoors and outdoors – to safeguard all facilities and the entire perimeter of the Arena Park. The team also secured the stadium, homes and offices with high-definition cameras especially suited for providing 24-hour security in outdoor spaces thanks to excellent low-light performance.

The cameras at VTB Arena Park also feature built-in Intelligent Video Analytics to support security staff in the control room with automated alerts. This video analysis automatically detects deviations from standard moving patterns, like a person entering restricted areas, and security staff can then zoom into a scene for closer investigation. The forensic search function also supports identifying and locating specific individuals, like the aforementioned person with a red jacket. For centralized control, security operators can manage all 2,000 cameras and connected video storage on Bosch recording units via the Bosch Video Management System (BVMS). The system provides the team with a single platform that also supports specific user access rights and settings for individual cameras or groups of cameras.





The capacity of Bosch to provide both video security and access control and at the same time being able to integrate its own solutions with third-party systems on a single platform, creating one integrated security system catering to all the various purposes, has made Bosch our main security partner."

Alexander Kravchenkov



Integrating three access control systems on one platform

To achieve the same degree of integration in the access control system for Dynamo Central Stadium, the Bosch team needed to innovate: The stadium operates three different access control platforms at the same time: a paper ticket system that opens turnstiles for visitors during events on the SkiData system, proximity cards that unlock doors for employees via the Access Engine of the Building Integration System (BIS) provided by Bosch and a third, offline system by Simons Voss that permits entry at specific stadium facilities.

In order to create a single point of control for these three systems, the team devised a highly customized set-up on the Building Integration System (BIS) by Bosch. The customized system provides the security team with a central point of access and comprehensive overview of the entire park during large-scale events. It features custom interfaces with third-party software and hardware, as well as specific scripts to transfer relevant access data into the BIS event log. As a result, VTB Arena Park now commands a single platform to control all of the stadium's access points, integrated with the video solution and intrusion alarm for end-to-end security at Moscow's latest attraction.