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How to protect high-rises from unauthorized entry without physical barriers

Customer story

Safety and security solution for Neva Towers integrates fire alarm, access control, public address, video security on a single platform

Inside the high-rise towers certified by LEED green building standards, an 'open door concept' creates a friendly atmosphere without barriers and checkpoints. Behind the scenes, smart security technology protects the building and its occupants around-the-clock, while critical systems operate on the same building management platform.
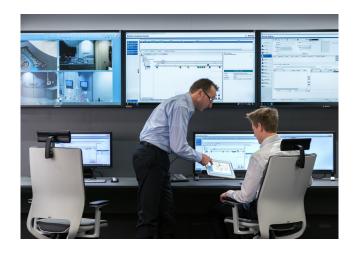
Two tall skyscrapers are the latest addition to the modern Moscow International Business Center (MIBC): The new Neva Towers range among the tallest buildings in Europe at 302 meters and 69 floors (Tower 1) and 345 meters and 79 floors (Tower 2). Combining residential and commercial spaces, the multifunctional complex features amenities such as cinema, panoramic pool, spa center and sports facilities at a total area of 357,000 square meters. Raising the bar in terms of sustainability, the Neva Towers project also complies with green building standards according to LEED (Leadership in Energy and Environmental Design) classification.

In search of a security and building management system for the project, developer Renaissance Construction had one main focus: integration. On one hand, integration between critical systems such as access control, fire alarm, public address, intrusion detection, and video security across both Neva Towers. But also integration that would result in added functionality, for instance by connecting elevators with keycard readers for seamless access rights and linking fire alarm and voice broadcast systems for optimized emergency response. Additionally, building operators requested smart features to enhance security and efficiency in the building, including automated intrusion alerts from cameras with Intelligent Video Analytics and energy savings from optimized elevator traffic control.

When it came to finding a provider capable of delivering this level of integration on a single platform, the choice was Bosch. Working with the latest version of the Building Integration System (BIS), the team created the foundation for the integrated management of access control, video surveillance, fire alarm, public address, and intrusion systems. As a result, over 1400 security cameras as well as keycard readers, smoke detectors and loudspeakers are managed together on a single, networked solution. As an added challenge, the system needed to meet a test of flexibility right at the start: Construction of the first tower, dedicated entirely to apartments for residential use, was finished in 2020 while Tower 2, featuring offices and commercial spaces, would require several more months.

For this reason, the system needed to be able to anticipate specific settings for fire detectors, cameras, and keycard readers at a later point in time. BIS offers this flexibility on a single platform, including convenient management of access privileges for residents, workers, and visitors via the built-in BIS Access Engine (ACE) as a complete access control software. Speaking of access control, Neva Towers prides itself in offering building occupants an 'open door concept' without physical security barriers such as checkpoints and turnstiles. But this can be challenging, as parts of the facility like the spa and cinema are open to the public. That's why behind the scenes, the system ensures that only authorized card holders can operate the elevators, verified via the BIS-ACE.

What's more, the system automatically recognizes residents who swipe their card and automatically directs the elevator to their building floor in a fully touchless experience, including residents entering from the underground parking level. Also maintaining the 'low profile' approach to security, ceiling-mounted dome cameras blend into the architecture inside the building. To fit the aesthetics of the interior design, smoke detectors and loudspeakers within the apartments match the attractive color palette. Despite remaining behind the scenes, the security and safety systems at Neva Towers remain vigilant around the clock, supporting security personnel with actionable intelligence: Across the perimeter and in the parking garages beneath the towers, cameras with built-in Intelligent Video Analytics automatically alert the control room of intrusion and suspicious behaviors.

In the case of a fire, integration between fire alarm and public address via the Bosch Safety Link allows for evacuating the building by zones, first directing occupants closest to the threat to safety via automated evacuation voice messages. And to support green building certification via LEED, installed solutions at Neva Towers were chosen for low energy consumption and long-term relevance to guarantee a sustainable, future-proof investment. Looking ahead, the integrated system at Neva Towers is built with expansions and future updates in mind:

When Tower 2 goes online, building operators can easily configure user access rights for office workers and handle day-to-day visitor control via BIS. At the same time, building management may flexibly alter the share of commercial and residential spaces in the tower, and adjust access control and security accordingly. Meanwhile, smart solutions like AI-powered security cameras are ready to 'learn' new functionality via software updates, without the need to invest in new hardware, for instance when it comes to maintaining safety and health guidelines that may arise in the future of smart buildings like these new, green building-certified skyscrapers.

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