Vienna Technical Museum Exhibits
Video-Enabled City of the Future Thanks to Milestone

Milestone Systems together with ESSECCA, SALTO and Sony show the use of video monitoring and access control in the “Future of the City” special exhibition at the Vienna Technical Museum. This exhibition provides information about the development of urban living space.

The Challenges
The Museum needed to show in their exhibition “Future of the City” that coming cities will be smart cities using video to optimize city functions and ensure that the citizens are safe. Furthermore the system had to be highly flexible to ensure that the exhibition had the high quality level that the museum required.

The Solution
Milestone XProtect with a Smart Wall enabled the Museum to highlight the use of video in a smart city. The open platform technology used in XProtect empowered the museum to design the perfect solution for the exhibition.

Advantages
The open platform technology used in the Milestone VMS allowed the museum to choose the perfect solutions from the Milestone partner community, showing not only what is possible today, but also hinting at the future video applications for smart cities.

Organization
Vienna Technical Museum

Location
Vienna, Austria

Industry Segment
Hospitality - Entertainment

System Integrator(s)
ProAccess SPACE von SALTO
JustIN Mobile BLE
Bluetooth Low Energy (BLE)

Milestone Partner(s)
ESSECCA
SALTO
Sony

Solution
XProtect Corporate 2016
Smart Wall

Number of cameras
2
User-friendly and intuitive
In cities of the future, security will play a greater role than ever because cities will be much larger and more interconnected than they are today. At the same time, video solutions, access control and alarm management will also play a significant role.

“For video monitoring and equipment in the Vienna Technical Museum, XProtect Corporation solution from Milestone Systems was used as it offers open IP video management software”, explains Michael Reiner. “Hence, an integrated solution with various external systems is how we have the greatest possible flexibility”. From the customer’s point of view, operation of the software is also a major factor. Because, in spite of the extensive functions that Milestone Systems products offer, the system is very easy to use. Thus, it is user-friendly and scores with intuitive operation. Moreover, there are many options for evaluating the data, from simple observation to the rendering of images where movement has taken place at a defined location. For the structure in the Vienna Technical Museum, alarm management is of paramount importance. This was combined with access control from SALTO. This guarantees the security of the building. As soon as an alarm is triggered here, the Milestone System activates the right camera and prompts automatic recording of the images.

Interactive display show casing video in the city
A ramp leads into the exhibition in the Vienna Technical Museum, which is recorded by a 360-degree fisheye camera from Sony. This has two functions: Firstly, in order to be able to count the people who enter the competition and how many of them visit the area of the control station or the garbage room. On the other hand, visitors can play with the control unit of the camera themselves. For this, a touch monitor with a quadripartite video wall is mounted in the entrance hall based on the Milestone XProtect Corporate solution from Milestone Systems. This is a high-performance IP video management system for large facilities with the highest security requirements. A central administration panel enables efficient system management, including all cameras and security devices irrespective of the size or distribution across several locations. For systems that demand above-average situational awareness and precise reaction to incidents, the solution has a Smart Wall function. In addition, it offers enhanced video thinning functions and encryption, which help organizations reduce the cost of video storage and at the same time ensure the integrity of video evidence and comply with industry-specific and government regulations.

One of the four images on the video wall of the exhibition shows the images from the fisheye camera in the entrance area and facilitates its control— the touchscreen and zoom can be changed via touchscreen. The second image illustrates real-time statistics of the people counting from the exhibition entrance area, operating station and garbage room.
In the third image, the view from a further Sony camera is displayed in the garbage room. It shows the situation with which the security personnel in a city or in a large facility are faced. 300 cameras or more are often installed in city centres. However, it is impossible to follow activities from that many camera. Therefore, the video systems are configured to show an image from the most relevant camera as soon as an alarm is triggered—for instance, an attempt to access a certain area or detected motion in an area. Because of this intelligence situational awareness is increased. In the exhibition, the alarm is triggered by a door opening, as the door fitting is connected to the access control system via wireless connection. On the fourth image of the video wall, all the alarms are listed which the system has already detected.

Smartphone access via Bluetooth
Access control takes place on a further monitor in the entrance hall, which enables the trash door to be opened using a smart phone. This mobile access solution enables people to open the doors via Bluetooth Low Energy (BLE)-enabled smartphone technology. A Mobile App is required for this, which uses smartphone-integrated Bluetooth interface to communicate with the electronic door components. Visitors to the exhibition enter their name and their cellphone number on the screen on the video wall and receive the mobile key to the automated access authorization on the smartphone app. This takes place “Over the Air” (OTA) using the latest state-of-the-art encryption. Using the cellphone key, they can then release the door locking mechanism, open it and enter the room.

Vienna Technical Museum
We see ourselves as a platform for controversial debates, addressing topical issues and fulfilling our educational remit with scientific responsibility.

As a result, the Technical Museum of Vienna is an example of a lively museum constantly striving to evolve further. And so we invite you to engage in an exciting encounter with technology at our Museum.
For visitors who do not wish to enter their cellphone number, a Mifare DESFire access card is also available which can be used to open the door. Inside the entrance hall, a talking garbage can with the words “Thank you for your garbage” awaits visitors.

“The openness to discuss and demonstrate innovations and products which are just emerging or are trailblazing is one particularly important point to us. We have opted for these products because the “networking-controlling-monitoring” areas of conflict can best be served directly in the personal domain, explains Lisa Noggler-Gürtler, exhibition curator at the museum.

The installation in the garbage room shows what can be possible in cities in the future. If access to certain areas should only be possible by authorized persons, more security can be provided. At the same time, the requirements for the exhibition show that the integration of several solutions like video, access and alarm management is more and more important.

Security in urban spaces
Around a half the world’s population today already live in cities and thus on only two percent of the world’s surface. According to estimates, even more than two thirds of the population will be living in cities by 2050. That shows that the city is the undisputed living space of the future. But here too, there are issues about organization, diet, living accommodation and mobility. The inhabitants of an urban space have different needs and constant innovation is required. In the two-year-long “Future of the City” exhibition, which has been open since the beginning of June 2016, the Vienna Technical Museum has shown different perspectives from which the subject can be approached.

The solutions
The access control systems in the exhibit works via the ProAccess SPACE management software from SALTO and JustIN Mobile BLE mobile access technology. The video analytics used was the countvis solution from the Viennese company CogVis GmbH. It enables the counting of people in video streams via the use of state-of-the-art video analysis and the statistical analysis of the results in real-time via a web-interface or automatically generated reports. Using countvis, information about the utilization and occupancy of different areas can easily be evaluated and analyzed.
In order to show the potential applications in this regard, the integration firm ESSECCA and the Museum of Technology have designed one section of the special exhibition. Based on a garbage room, visitors can delve into access control and video monitoring. The areas addressed will include citizen-city-networking as well as access to public institutions. "The background to this is that the garbage room can only be used by persons who live or work there and thus are authorized to dispose of their garbage", explains Michael Reiner, authorized officer at ESSECCA GmbH. This can also be expanded to bulky waste collection centers to which authorization can be granted based on license plate identification.

As a leading supplier of electronic security solutions in Austria, ESSECCA develops flexible, holistic and client-oriented solutions for all buildings that offer a high degree of security and are convenient to use. The service provider offers its customers a one-stop shop, from expert advice, technology and installation right through to system integration, maintenance and servicing. Besides electronic and mechanical access solutions, the product and solution portfolio includes alarm and video systems as well as intercom systems and mechanical door control systems. With 250,000 access points realized and numerous alarm, video and intercom systems installed, ESSECCA has longstanding experience and can provide numerous notable references in all building sizes and business segments.

Milestone Systems has always attached great importance to a partner ecosystem that uses the open platform to collaborate. Now the company is going one step further and is establishing an Open Platform Community. The result is a network in which Milestone, its partners and end customers are interlinked in order to benefit from mutual exchange. Analogous to the smartphone App Stores, Milestone will have its own marketplace for partner applications on the website.

Links

- technischesmuseum.at
- essecca.at
- saltosystems.com
- sony.com