CASE STUDY

Secure learning and research

Vienna University of Economics and Business | *Austria*

Industry

- Education

Solutions

- Octave Coda Video, Octave Coda Web Client, Octave Coda Mobile Client

Challenges

- Large, publicly accessible outdoor spaces
- Safety while respecting personal rights
- Aesthetic integration of security technology

Results

- Networked video system with several hundred IP cameras
- Encrypted communications and masking ensure privacy
- Cameras incorporated inconspicuously

Vienna University of Economics and Business (WU) was founded in 1898 by the k. k. Ministerium für Cultus und Unterricht as the "k. k. Exportakademie." At that time, courses of study included the relatively modern fields of foreign languages, economics, business affairs, economic geography, public law, private law and consumer affairs.

Steady growth necessitates more modern security solutions

Due to steadily increasing numbers of students, the WU had to relocate to various sites in Vienna several times in its history. The previous location in Althanstraße – originally designed for around 9,000 students – was already fully occupied when the university moved there in 1982. In the 1990s, the number of students grew further and eventually settled at over 20,000. As a result, in 2009 work began on a new campus in Vienna's second district to the east of the Prater park.

What was ultimately created was an open site with clear spaces and green areas, with a total of nine stand-alone and very differently designed building complexes distributed across it. The heart of the WU campus is the Library & Learning Centre designed by the Zaha Hadid design office. It houses central service facilities, banquet halls and a library, among other areas.

Even during the planning stage for the WU campus, the topic of security played an important role. A viable concept had to be developed, in particular for the large outdoor areas - accessible day and night - to protect students, faculty, staff and visitors against attacks and thefts, while respecting their personal rights. Another key task of the security technology was visual support for emergency services in the event of an alarm or when securing escape routes. Design aspects also needed to be taken into account; cameras had to be placed as inconspicuously as possible, and could not in any way affect the overall architectural impression – a tricky task for the installation engineers in particular.

"The challenge faced by the WU campus was to reconcile the requirements of security and fire protection with protecting personal rights and video data... Octave Coda Video does both – it seamlessly integrates with building and hazard management systems and at the same time offers numerous features to protect data and privacy rights."

Johann-Wolfgang Hörtl
Security Department,
Vienna University of
Economics and Business

Flexible, modular VMS

An invitation to tender was launched for the security technology on the WU campus. Siemens AG Austria was chosen because of its overall comprehensive concept, which also took the architectural features into account.

Octave Coda Video (formerly HxGN dC3 Video) was chosen as the video management software (VMS) system; thanks to its flexible and modular design the solution is expandable and can be easily connected to third-party systems. For the WU campus, this was important because all security systems were to be linked and managed via a centralized building management system.

As the public spaces on the WU campus also needed to be secured, observing the highest possible standards of data protection and maintaining the privacy rights of students, faculty, staff and visitors were of paramount importance. In this respect, Coda Video offers encrypted communication between the server and client and also supports secure connections to cameras. In addition, sensitive areas can be masked in the camera image or persons can be made unrecognizable by pixelation; access to original data can be restricted to authorized personnel.

A safer campus

Since its launch in 2013, a networked video system with several hundred IP cameras has been guaranteeing security on the WU campus.

To minimize system load, video images are recorded and supplied via multiple servers that are also protected against failure via a made-to-measure redundancy concept. Live images can be displayed as required on a large-screen system in the WU campus control room.

To permit interaction of the total of 16 different systems (such as fire, access control, video technology), they are linked to one another via the WinGuard SiControl building management solution from Siemens. If, for example, a fire alarm is triggered, action plans can be automatically displayed in the control room, and live images from cameras in the vicinity can be displayed.

The cameras distributed across the terrain and in buildings focus primarily on the perimeter, escape routes and critical infrastructure. Thanks to specially developed mounting concepts from Siemens, it was possible in many cases to incorporate them inconspicuously into the façade and ceiling structures, preserving the overall architectural impression. To offer additional security to students, faculty, staff and visitors, SOS telephones were erected at multiple points on the premises. If an emergency call is made, it triggers an alarm on the WinGuard SiControl system. In addition, the nearest PTZ camera focuses the column and turns on the live image in the control room. This means security personnel can again gain a picture of the situation on the ground immediately.

Seamless integration

Johann-Wolfgang Hörtl, responsible for the security department at WU Vienna, and also for the video system, summarized the special features of the system, saying, "The challenge faced by the WU campus was to reconcile the requirements of security and fire protection with protecting personal rights and video data - after all, we operate in the public space here as well as in areas where lots of people are working. Octave Coda Video does both – it seamlessly integrates with building and hazard management systems and at the same time offers numerous features to protect data and privacy rights."

Another important aspect when selecting a suitable video solution was scalability, to keep pace with potential increases in the numbers of employees and students. Thanks to the modular design of Coda Video, new camera channels can be integrated quickly and easily. In addition, new functionalities can be added at any time in the form of expansion modules – examples of this include intelligent video analysis or license plate recognition for managing parking areas.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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