

## Case Study

# Université Libre de Bruxelles

The Université Libre de Bruxelles puts student safety at the forefront of its strategic objectives with the Security Center access control and video surveillance systems



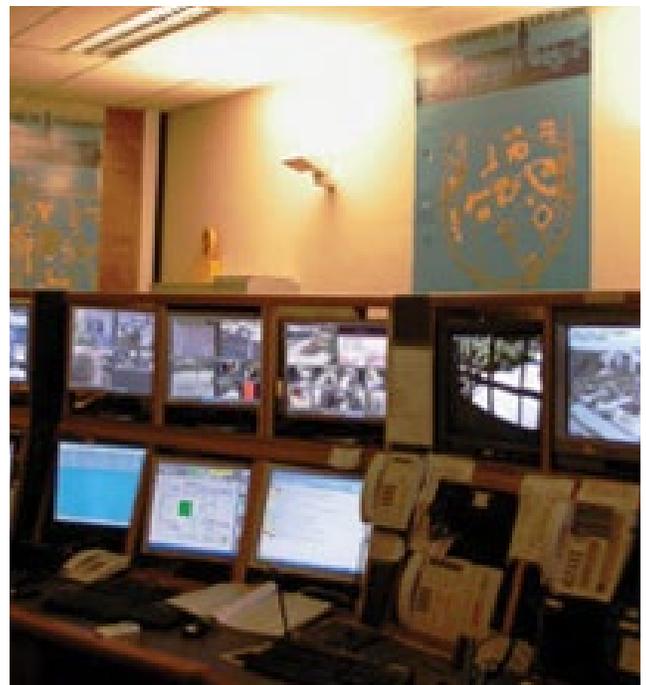
Founded 175 years ago, the Université Libre de Bruxelles (ULB), just like its home city, is intrinsically cosmopolitan, and a gateway to Europe and the world. This thoroughly multicultural university, that offers programs in all disciplines and at all levels, is also a major research center recognized by the international academic community. This free-thinking university, a private institution recognized and subsidized by the government, has remained true to its original ideals: it is an institution that is committed to defending democratic and humanist values. A true city within a city, the University has three campuses in Brussels that welcome nearly 24,000 students each year. The main campus, in Ixelles (Solbosch), is home to the central administration and most social sciences faculties, as well as the Ecole Polytechnique. One kilometre away is the de la Plaine Campus, and the faculties of science and pharmacy. The faculties of medicine and public health are all located at the Anderlecht Campus (future health hub), right next to the Hôpital académique Erasme (ULB university hospital). The University also has a campus in the Wallonia city of Charleroi, at the Biopark hub, specializing in biotechnology.

### Business challenge

The Université Libre de Bruxelles has decided to focus on security on its campuses by implementing a video surveillance system, and controlling access to restricted and critical areas.

Located in the heart of Brussels, ULB is accessible to the public, i.e., vulnerable to risky situations, especially after business hours, and during evenings and weekends. This pioneer in the installation of emergency phones has made security on its campuses a strategic objective. To meet this objective, the University's security department installed a system to monitor and control access to restricted and critical areas (mainly buildings). As part of this plan, the ULB has placed cameras in strategic locations (including the pass-controlled doors to each building and at the emergency phones that were custom-designed for the University) that then send the images to a control center. At the time of the switch from analog to digital, the initial installation did not have the configuration flexibility of an IP system needed to meet the requirements set by the ULB.

The ULB security teams have opted for recent IP developments in the field of video protection. They have defined new project specifications to support the implementation of a new and improved solution that also would enable them to keep the original system. This solution must work efficiently—especially



with the original star-type telephony network—while being more decentralized, and offering the possibility for upgrades in terms of volume and integration of new technologies.

### ULB security needs

“To make crime unwelcome on campus,” answered Jean-Philippe Charlier, ULB security manager, when asked about his team’s objective. To do so, the system implemented must allow doors to be remotely managed and controlled, for example, on a schedule-based system for student access outside of course hours. It must also allow anyone in danger or at risk to alert the control center, which determines how to react based on the images received and the emergency level. In order to be thoroughly efficient, the system must provide a 24/7 overview of the campuses, and must synchronize the various cameras to track any suspicious activity (the path taken by a suspect, for example). The security agents decide either to intervene immediately or to send the film to the police at a later date.

The easy creation and modification of user profiles is also important. Belgian law defines user types with different rights, i.e., not everyone is authorized to see the live images. Another requirement: all security-related calls must be directed to the control center, located on the Solbosch Campus. Automatic response to calls made from any of the emergency phones located across the campuses, all of which allow for visual monitoring through an integrated IP camera, an intercom, as well as an alarm system that allows security agents to quickly intervene, is yet another requirement.

And, finally, the University wants an open technology that is easy to upgrade and integrate into an existing system.

### The perfect solution

Once the project specifications were set, and after a first installation that did not meet all the requirements, the ULB turned to Damovo, with which the university has worked for over 15 years on the telephony system and which is familiar with the different levels of the system. Given the requirements for opening and operating the existing star-type network, and the transition from analog to IP, Damovo proposed the Genetec Omnicast video surveillance solution for its open architecture and its capacity to manage various user profiles, as security needs are not the same across all campuses.

The first stages of installing the Genetec solution, which involved four cameras with almost-immediate start-up, convinced the University’s security department. One hundred and twenty cameras (mostly Bosch) are now operational—including 80 on the main Solbosch campus. The Genetec Omnicast solution optimizes camera functions, even on the oldest models. “What we liked the most was the ability to use our original cameras and existing system for a whole host of new functions,” specified Jean-Philippe Charlier, ULB security manager.

Four servers installed at different locations (for security reasons) store the images. Example:

The Gosselies local archiver records the images to minimize bandwidth use.

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Even when live images are viewed by several operators, the efficiency of the multicast IP protocol helps reduce the bandwidth used by the ULB network to a strict minimum. The operators, located in Brussels, control the cameras in priority sequence thanks to the well-organized user structure in Omnicast.

The “automatic directory failover” function is integrated within ULB, which helps keep the video surveillance system permanently online, regardless of the status of the network.

The images are stored on large-capacity RAID-type hard drives, limited only by the Belgian Privacy Commission’s legislation concerning duration of image conservation.

Fourteen client stations (including 11 screens) located at the control center operate 24/7 and are supervised by Damovo. Quick intervention is guaranteed by a service contract that also stipulates software upgrades of all its components.

The integration with the intercom systems (Stentofon IP Station), managed in the form of Omnicast alarms, is one of the major advantages of Genetec’s Software Development Kit (SDK) solution. The intercom system allows operators, on receipt of a call from a given door, parking barrier or emergency phone, to immediately view the image received and intervene as quickly as possible.

The permanent solution provided by the overall video surveillance system must be a logical response to a need expressed by the users. “We won’t use grid zones, but if a new building is built, or we identify a potentially dangerous zone, we will petition the authorities for new cameras.” And this is easily done thanks to the easy integration of Genetec’s Omnicast solutions.





### The benefits

The use of Genetec's Omnicast solution, installed five years ago, is paying off for the ULB. Regarding users, the main asset is the great simplicity and flexibility of use offered by Omnicast on a day-to-day basis. Its open architecture is especially useful when defective equipment must be replaced or new equipment installed.

The optimized synchronization functions of the various cameras are a real asset for tracking suspicious activities and provide support to the police department as needed. The ULB security team can now preview images much more easily and quickly than before, and review any significant event recorded. As a result, cooperation with the authorities has been strengthened, as the latter can now be sent specific information on security incidents, since the Genetec systems guarantee the full reliability of the data. "They appreciate our help in cases of theft or assault on campus, and the videos we record are a great help to them in their investigations."

The system has also proven to be efficient by allowing authorities to defuse potentially critical situations, and is well perceived by the students and their parents, who see it as a real service. This helps increase the feeling of security across the entire university community.

Finally, the video surveillance strategy adopted by the ULB, and its choice of Genetec solutions, have strengthened its pioneering image in terms of security, especially in the academic sector, because ULB is the only university of its kind with a comprehensive security department dedicated exclusively to campus security and surveillance.

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“We will expand our system in the future by adding new buildings to the system. The great thing about Omnicast is that the introduction of new cameras is done on a case-by-case basis. This flexibility really allows us to do what we want,” concluded Jean-Philippe Charlier.

The integration of Synergis and Omnicast allows the emergency phones to work by using multiple contacts and relays. The HID-over-IP controls enable maintenance and monitoring over a distance of several kilometres between the different sites.

This also simplifies integration with other systems, such as ControlMaestro, in order to track events on existing remote management screens. Programming is made much easier by having a single provider for Synergis and Omnicast systems.

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