

Past and future come together at the Sint-Jozef-Klein-Seminarie



College in Sint-Niklaas boosts their digitalization with a new Wi-Fi 6 network

The Sint-Jozef-Klein-Seminarie in Sint-Niklaas, Belgium, first opened its doors on May 9, 1808. After more than 200 years, the stately building continues to serve as an educational institution. But a lot has changed over two centuries. The abacus made way for the calculator, and the slate and stylus have been replaced by laptops and tablets. Nowadays, many lessons are held completely digitally. To support these new teaching methods, Sint-Jozef-Klein-Seminarie (SJKS) has installed a modern Wi-Fi 6 network in cooperation with specialist “De Wifi Expert” and equipment from LANCOM Systems.

Increasing digitalization

On its four campuses, SJKS accommodates a nursery school, primary school, secondary school, and a boarding school. They recently started a laptop project, which allows secondary-education students in the first to third grades to bring their own laptops to school. In primary education, students use devices provided by the school. Jen Kegels, ICT coordinator at SJKS explains the importance of this project: “Access to digital tools increases interactivity and variety. Students need to better master digital skills, and for this the use of laptops and computers in the classroom is essential.”

This wave of digitalization has caused a rapid increase in the number of devices with a Wi-Fi connection. On a typical day, about a thousand students and employees connect to the Wi-Fi network. While formerly the SJKS got by with 1 access point per 3 classrooms, it soon became apparent that the Wi-Fi network needed an upgrade. “The old access points were eight years old already and all still had old technologies, so there was a real need for a new system.”

Implementation

Jen then decided to call Wim Roelands, owner of De Wifi Expert, to start planning. The first step was to assess the school’s needs in consultation with the ICT team. Next, various measurements were taken, including the thickness of the walls and how they transmitted RF signals. “That was then implemented in the software,” Wim explains. With the planning completed, a second visit assessed how well the plan matched the reality. Finally, the devices were pre-configured, set to the correct power levels, labeled, and sent to the school. Once the access points were switched on, it took only a few hours before the entire campus had Wi-Fi coverage. “And that surprised me. I was expecting it to take days of work to get everything optimized,” says Kegels.

SJKS initially preferred equipment from a different manufacturer. “We then weighed-up the pros and cons and it turned out that LANCOM Systems were best qualified,” says Roelands. Using a test setup with a LANCOM access point, thirty students were asked to play YouTube videos while teachers performed speed tests. “Then, thirty mobile phones were also connected to the access point, but that made no difference.”



However, not all colleagues were keen on the change. “There are always pros and cons. Some teachers had made extensive use of digital resources in their lessons, while at the other end of the spectrum there were teachers who were unfamiliar with the technology. But our intention was for that group to use digital resources in the classroom as well,” Kegels explains. By communicating openly with all employees, including by newsletter, the IT team managed to calm the concerns. “Even from the preparation phase, we were clearly communicating the steps and choices to all of our staff.” Now when Jen enters the staff room, questions are about software or hardware problems, and not the Wi-Fi. “So obviously, it is working!”

Thick walls

One challenge when optimizing coverage inside buildings is the walls. Anyone who has ever wandered through the corridors of buildings in central Sint-Niklaas will understand why. “We have buildings that are more than 200 years old with very thick walls. And yet the new parts have relatively thin walls, so this had to be carefully investigated in advance. How many access points do we need, how strong do those access points have to transmit, and so on,” Kegels explains.

Roelands also saw this as a challenge: “Thick walls have advantages and disadvantages. Signals do not transmit well, but that can actually be useful. The biggest source of Wi-Fi interference is the Wi-Fi itself, especially in locations with more than a hundred access points. Access points can “hear” one another and in an old building with thick walls, the access points are less likely to receive one another’s signals. For this reason, measurements were taken in every corridor and classroom to optimize signal strength.



“With equipment from LANCOM we can reassure parents that we are handling their children’s data with the utmost care.”

Jen Kegels, ICT Coordinator at the Sint-Jozef-Klein-Seminarie

European supplier

LANCOM Systems stands for digital sovereignty, which is one of the reasons why SJKS chose equipment from the German manufacturer. The company guarantees that its products are free of backdoors and comply with European privacy regulations. “That is important because student data is very sensitive,” says Kegels. “Parents increasingly have legitimate questions about this. I wouldn’t like it if my children’s data were being passed around. But with equipment from LANCOM we can reassure parents that we are handling their children’s data with the utmost care.”

Roelands confirms this: “For every LANCOM product that we supply, we have a certificate stating that it is guaranteed to be free of backdoors.” He also mentions another important reason why it is good to work with European partners such as LANCOM: “The ecological footprint. By this I mean that products that have to come from the US or Asia cause much more pollution, simply in terms of transport, compared to products produced in Europe.”

At LANCOM itself, the staff are also proud of the result. “Projects such as the Sint-Jozef-Klein-Seminarie are valuable to us because they contribute to children’s digital development. The pleasant and smooth collaboration with De Wifi Expert and the school’s ICT team was also decisive. Thanks to open communication and good preparation, the number of incidents has been minimal and the school now has a Wi-Fi network that will last for years to come,” says Ajin Ku, Benelux Country Manager at LANCOM Systems.



Jen Kegels

At a glance

The customer



Sint-Jozef-Klein-Seminarie

Collegestraat 31
9100 Sint-Niklaas, BE
+32 (0)3780 7150
info@sjks.be
www.sjks.be

Products and services:

Provider of nursery education, primary education, and general secondary education

The partner



De Wifi Expert

Statiestraat 11
2070 Zwijndrecht, BE
+32 (0)3252 4694
www.dewifiexpert.be

Requirements

→ Reliable, secure and future-proof Wi-Fi 6 network

Components deployed:

→ LANCOM LX-6200
→ LANCOM vRouter as controller

