



Success Story

University Connects Video Conference Center to International Partners with Zyxel Solution



Education



University of
Central Europe
in Skalica



Slovakia



Zyxel
wireless
solution

Overview

Challenges

- Create network infrastructure to support video conferencing
- Solution must overcome incompatible technologies
- Solution must provide stable and fast connections
- Solution must be secure
- Solution must support wireless and wired connections

Benefits

- Easy deployment with PoE
- Best security for SMBs
- Simple connections for digital cameras and projectors, as well as portable devices
- Expandable and scalable for growing businesses
- Secure and stable connectivity

Solutions

- Next-Gen Unified Security Gateway Extreme Series
- 24/48-port GbE L2+ Switch
- 24/48-port GbE Smart Managed Switch
- 8-port GbE L2 PoE Switch

"We have chosen Zyxel solutions for the implementation mainly due to the long-term presence of the brand on the Slovak market and the positive customer feedback on working with these devices. The price-to-performance ratio of the device in comparison with that of other brands also plays an important role in the choice of the Zyxel brand. We have been very satisfied with the choice of Zyxel devices for several years."

Dr.h.c. Ing. Heidi Schwarczová,
PhD. Director and founder of the University of
Central Europe in Skalica

Background

Located in Skalica, Slovakia, the University of Central Europe in Skalica (UCEU) is a non-profit private learning institution. Its primary mission is to develop the values of education and culture, knowledge and awareness. UCEU offers a specialized full-university education featuring a range of attractive and accredited study programs. These are focused primarily on the areas of International Relations (bachelor and master) and Environmental Management (bachelor, master, and PhD.).

Solutions and Benefits

The project began with the building of a completely new network infrastructure in Slovakia as well as at various foreign partner campuses. In the Slovak town of Skalica, a new network was built in two school buildings, which were then connected via an optical link. Next, a separate network was created at an offsite workplace in Košice and Skalica. Currently, both the workplaces have extensive network infrastructure across three buildings, interconnected through a high-speed optical line. Each building has over 120 user stations, its own server room with disk arrays, an IP phone station, complete Wi-Fi coverage, and an IP camera surveillance system with recording and alarm. Each building contains several classrooms equipped with videoconferencing technology.

Next, partner universities were connected to the central server station in Slovakia using Zyxel videoconferencing and network technology. At this stage of the project, it was necessary to connect the central station with the differing network infrastructures of European partner schools. These schools' infrastructures had widely variable performance and capacity parameters. The goal was to establish a stable and secure connection to the central management location in Slovakia. The deployment was based around Zyxel's GS1910 series smart managed switch, XGS3700 24/48-port GbE L2+ switch, and the GS2200-8HP 8-port GbE L2 PoE switch to regulate data traffic for various applications (VoIP, video conferencing, IPTV, and IP surveillance). For data protection, the school

Challenges

As part of a new videoconferencing solution, the university needed to connect its own network infrastructure to those of various other Slovak school branches and foreign partner universities. Differing technology at each location presented several technical challenges. In order to carry out the plan, UCEU would have to implement a new network infrastructure to create the stable and secure environment necessary for videoconferencing.

used USG1100 Next-Gen Unified Security Gateway Extreme Series to protect data from hacking as well as to manage networks.

After the successful first and second stages of the project, the third stage is being prepared, which involves the implementation of Zyxel technologies to connect other countries in Europe and around the world.

"We have been working with Zyxel for a long time because of the quality they provide," said Peter Kovac, managing director at Munus Inc., a Zyxel local partner. "With our referral and confidence, our customer decided to choose the Zyxel solution."

The use of Zyxel network infrastructure devices helped UCEU build a stable and secure network connection with foreign partners with whom the university cooperates. The university is now in a better position to teach the use of videoconferencing technology. A secure and high-performance central station has been set up in Slovakia, which is connected to partner endpoints through Zyxel solutions. Although video conferencing technology presents several unique challenges such as sensitive network settings, security issues, and demand on bandwidth, UCEU managed to ensure stable, safe, and high-speed connections at individual sites. These were completely free from disruptive interference, thanks to appropriately selected network elements from Zyxel.

Product Used

USG1100 • Next-Gen Unified Security Gateway Extreme Series



- High-performance, high-value Next Generation Firewall (NGFW) for medium and large-sized businesses and campuses
- Anti-malware protection with firewall, anti-virus, anti-spam, content filtering, IDP, next-generation application intelligence and SSL inspection
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN High Availability (HA)
- Unified security policy streamlines the configuration and management efforts
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 66 APs

XGS3700 Series • 24/48-port GbE L2+ Switch



- Full Layer 2 feature set with Layer 3 features including static routing, policy-based routing, VRRP and ECMP support
- Four (4) 10GbE SFP+ uplink flexibility
- 24 or 48 ports of Gigabit Ethernet desktop connectivity
- Hot-swappable power supply module
- Internal redundant power supply design
- Provides up to 30 W per port with IEEE 802.3at PoE Plus compliance
- High PoE power budget up to 1000 W

GS1910 Series • 24/48-port GbE Smart Managed Switch



- Advanced Smart GbE L2 ACL switching features
- 48 Gbps non-blocking switch fabric
- IEEE 802.3at Power over Ethernet Plus
- Supports IPv6

Product Used

GS2200-8HP • 8-port GbE L2 PoE Switch



- Comprehensive L2 switching features
- 20 Gbps non-blocking switch fabric
- 2 dual-personality (RJ-45/SFP) GbE interfaces
- IEEE 802.3at PoE Plus and IEEE 802.3af PoE support
- Port security and enhanced 802.1X port authentication
- MAC freeze and intrusion lock
- 8 IEEE 802.1p hardware priority queues
- WFQ, WRR and SPQ queuing algorithm

About Zyxel Communications

Focused on innovation and customer-centricity, Zyxel Communications has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users. Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play. Zyxel, Your Networking Ally.

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