



Success Story

ZyXEL Assists Polish Technical University with Fiber Network Upgrade

“We wanted to increase our efficiency and safety for the purpose of the department’s projects, which include long calculation processes, and improve the fiber optic network. Kappa Company offered to replace the existent network gateways with ZyXEL equipment, which increased the safety of our calculation center and provided better efficiency for our fiber optic infrastructure.”

Dr. Eng. Jacek Podgórski
Dean of Proxy Teaching at the Department of Semiconductor and Optoelectronics in Lodz University of Technology

Overview

Customer Name
Lodz University of Technology

Customer Industry
Education

- Challenges**
- Upgrade department’s fiber network
 - Improve network efficiency
 - Prevent unauthorized access and attacks

- Solutions**
- ZyWALL 110 VPN Firewall
 - ZyWALL IPSec VPN Client

- Benefits**
- Makes better use of fiber network, improving efficiency four-fold
 - Enables safe remote access to the university’s calculation center, decreasing chance of outside attack
 - Offers strong DES / 3DES / AES encryption

Background

Founded in 1945, Lodz University of Technology (TUL) has grown to become one of Poland’s largest technical universities. While the original institution was housed in an old factory building in the city of Lodz, today it covers nearly 200,000 sq. meters, and is comprised of over 70 separate buildings.

Approximately 21,000 students currently attend the university, and the institution employs over 3,000 staff members in instructional and support positions.

Challenges

The university’s Department of Semiconductor and Optoelectronics recently embarked on a project to upgrade its fiber optic network. To help with this, they teamed with Kappa, a locally based network services company. Kappa experts responded to the primary needs of the department to improve network efficiency and security.

While the new gateway was intended to provide primarily firewall facilities and VPN concentrators, Kappa proposed a firewall solution that would efficiently protect the department against attacks and unauthorized access to the new calculation server, particularly from outside sources.

Solutions and Benefits

The modernization of the Department of Semiconductor and Optoelectronics included the replacement of the existing ZyXEL ZyWALL USG 100 gateways with the ZyWALL 110 VPN firewall – the most modern business-class VPN.

This new, more efficient solution would handle routing and VPN tunnel fastening, which were vital for managing the capacity carried over the department’s fiber optic technology.

The department obtained five ZyXEL IPsec VPN Client licenses, and installed them in the PCs of those responsible for conducting calculations. This enabled outside access via a newly created IPsec tunnel. Any access would now be obtained only after successful login and verification, as well as via safe VPN transmission through the channel, along with other restrictions.

The whole implementation included three stages, which took a total of one week. This involved planning and implementing new safety policy and setting the proper network addressing. The next stage was to install

devices and test them in the modernized network. During final stage, Kappa experts trained university employees on the new ZyXEL solutions.

Thanks to the ZyXEL ZyWALL 110 firewall, the department's infrastructure efficiency improved almost fourfold through better use of the fiber optic systems. Additionally, the IPsec enabled safe remote access to the calculation center, substantially decreasing the chance of penetration from outside. With the introduction of the new policy, network security in the Semiconductor and Optoelectronics Department of Technical University of Lodz increased significantly.

Products Used



ZyWALL 110 VPN Firewall

- Multi-core CPUs deliver up to 1.6 Gbps firewall throughput and 400 Mbps VPN throughput
- Up to 9x faster firewall performance and 4.4x faster VPN performance than preceding models
- More secure VPN connections with SHA-2 encryption
- VPN high availability (HA) with dual-WAN failover and fallback support
- L2TP support for iOS, Android and Windows mobile devices
- Auto-provisioned client-to-site IPsec setup with Easy VPN



ZyWALL IPsec VPN Client

- Supports Windows 7, Windows 8, Vista, Server 2008/2003 and XP operating systems
- Compatible with ZyWALLs and most IPsec VPN gateways
- Strong encryption with DES / 3DES / AES encryption
- Supports all connection types: DSL, dialup modem, Ethernet, wireless, etc.
- Strong User Authentication with X-Auth, PEM or PKCS#12 Certificates, PreShared keys
- DPD and Redundant gateway

About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modem manufacturers, ZyXEL has undergone many transformations in the fast-paced networking industry. Today, ZyXEL is one of the few companies in the world capable of offering complete networking solutions of Telco, SME/Enterprise, and Digital Home for a wide range of deployment scenarios. Telco solutions include wired and wireless access network equipments, networking customer premises equipments, and Carrier Switches. SME and Enterprise solutions include Unified Security Gateway, LAN Switches, WLAN, and IP telephony. Digital Home solutions include network connectivity devices and multimedia solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

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