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Success Story

ZyXEL Creates Modern and Secure Wi-Fi Network for Polish Olympians Primary School No. 323 in Warsaw

"The idea was to create a professional digital school where students and staff will be provided with permanent and, more importantly, secure access to the Internet. We have achieved this thanks to the work of our engineers and by providing the highest level of technology imbued in the ZyXEL device. "

Sebastian Kluczyk
Education Project Manager
NETENGINE

Overview

Customer Name
Primary School. No. 323 in Warsaw

Customer Industry
Education

Challenges
• Upgrade primary school's wireless network to support a range of Internet-based educational programs
• Equip school to conform with "Digital School" program
• Protect students from inappropriate content

Solutions
• Unified Security Gateway
• 24-port GbE Smart Managed PoE Switch
• 802.11 a/b/g/n Dual-Radio Unified Access Point

Benefits
• Licensed protection from undesirable content, viruses and malware
• Easy setup and expansion
• Technology to handle mobility challenges
• Easy management of multiple connections
• Simplified and reliable security

Background

Primary School No. 323 in Warsaw, Poland is attended by more than 700 students. The school is currently equipped with two mobile computer labs, one lab with desktop PCs, and classrooms with interactive whiteboards.

Challenges

The actions undertaken to equip Primary School No. 323 with modern teaching aids and make them available to students were implemented in accordance with the provisions of the governmental "Digital School" program. Its aim is to develop student and teacher competence in the use of ICT for educational purposes. The program is committed to the development of creativity, skills, cooperation and critical thinking. This includes search, evaluation and creative use of available information resources, such as the Internet.

Before the implementation of the program, regular Internet access was only possible from a stationary computer lab, while the two mobile classrooms equipped with interactive whiteboards and laptops could not be used in the educational process due to the absence of Internet access.

Any network and Internet connectivity solution needed to include protections to filter out content what would be inappropriate for the student users.

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Solutions and Benefits

Specialists from NETENGINE suggested installing the ZyXEL USG 110 security gateway, GS1920 Smart Managed PoE Switch and 14 NWA5123-NI access points. Such a choice was dictated by, among others, the requirement for effective content filtering and blocking sites with content deemed inappropriate for children and youth.

Thanks to works conducted by NETENGINE and installation of the ZyXEL Wi-Fi infrastructure, it is now possible to use the Internet throughout the school building, including the sports hall and other locations that did not have Internet access before. The implementation of a school wireless network generated an opportunity to create an electronic school register.

Each classroom is to be equipped with a computer with network access eventually, so that the teachers can update the registered data on a regular basis. Thanks to its function management capability, the implemented infrastructure helps eliminate network risks and filter away inappropriate content in order to protect its students.

"Thanks to an efficient Wi-Fi network, our children and youth have constant access to information, and teachers can use a wider range of multimedia educational materials to teach various subjects (e.g. working on interactive whiteboards). The whole learning process has become more interesting, more attractive, and more beneficial for our students." said Wioletta Krzyżanowska, the headmaster of Primary School. No. 323 in Warsaw.

Product Used

USG 110
Unified Security Gateway

- High-performance, high-value Next Generation Firewall (NGFW)
- Robust security without sacrificing performance
- Comprehensive support to IPv6
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 18 APs
- Robust hybrid VPN (IPSec/SSL/L2TP over IPSec)
- Zero-configuration remote access with EASY VPN
- Supports L2TP/IPSec VPN on mobile devices (iPhone and Android phones)
- ICSA Firewall, IPSec certification
- Content filter stops malware and Web threats
- Powerful Email security
- Non-stop Internet access with multiple WAN and 3G backups

GS1920-24HP
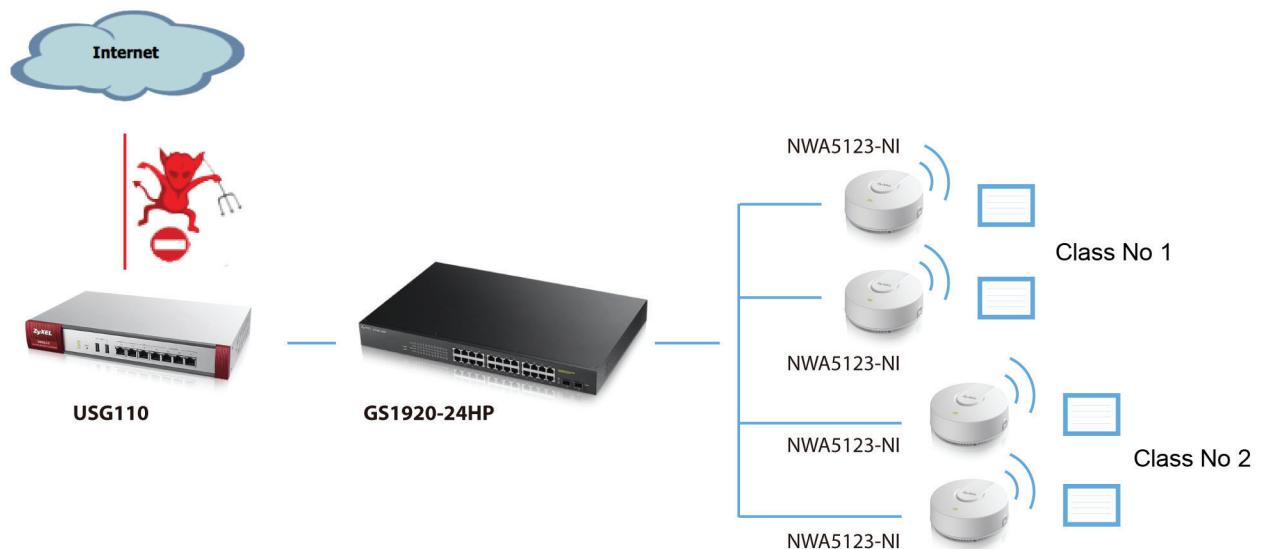### 24-port GbE Smart Managed PoE Switch

- Smart managed switch with essential L2 features
- GbE RJ-45, GbE combo (RJ-45/SFP) and fixed GbE SFP connectivity
- Compliant with IEEE 802.3af PoE and 802.3at PoE Plus
- High 375-watt power budget
- Supports ZON Utility, Smart Connect and iStacking facilitates easy network initialization and management
- Reliable network availability with Loop Guard, IPSG, and CPU protection
- RADIUS, static MAC forwarding and 802.1X authentication-enhance network security
- Future-proofed with IPv6 support

NWA5123-NI
802.11 a/b/g/n Dual-Radio Unified Access Point

- Ceiling and wall mountable
- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- 2.4 GHz and 5 GHz concurrent dual-band
- High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)

Diagram