



Success Story

Ardahan University in Turkey Strengthens Network Infrastructure with ZyXEL Solutions

“The need for educational establishments to provide a stable and secure Internet network increases each day. As university campuses are also designed as settlements and have high Internet traffic, network infrastructure installations at these locations should be carried out meticulously. We are extremely happy that we were able to work with Dataproces, a member of our ZyPartner solution partner program, and that we were able to provide a robust network infrastructure that can fulfill the modern requirements of Ardahan University.”

Aytuğ Nadir
ZyXEL Regional Sales Manager

Overview

Customer Name

Ardahan University

Customer Industry

Education

Challenges

- Provide wireless network for large university campus and facilities
- Wireless access must be available both indoors and outdoors
- Solution must be secure and stable
- Solution must be future-proofed for growth and expansion of service

Solutions

- 802.11 a/b/g/n Dual-Radio Business AP
- 802.11 a/b/g/n Business Access Point
- Business Wireless LAN Controller
- 802.3at PoE Injector

Benefits

- Durable APs suited to outdoor deployments
- Controller offers exceptional management and security features
- Simple setup makes future expansion easy
- Stable high-speed connectivity
- Back-up for enhanced security

Background

Established in 2008, Ardahan University comprises five faculties, three colleges, five vocational schools and two institutes. Since its founding, the university has embarked on its institutional journey by following the motto “be part of the light,” and its vision is to become a university with a competitive edge on the international stage in the areas of

science and technology. For the university to realize this mission, an uninterrupted, stable and secure Internet access infrastructure was required throughout the campus, and university administrators preferred ZyXEL, a leading network technologies company, to provide that solution.

Challenges

Universities like Ardahan shape young minds to prepare them for the world of science and technology, giving them tools for a professional life. As such, they are one of the places in which Internet access is a must. A strong interface is required for fast and uninterrupted connectivity on university campuses, which are often spread across numerous facilities.

Ardahan University needed provide an uninterrupted, stable and secure

Solutions and Benefits

Dataproses — a member of the ZyXEL solution partner program, ZyPartner — utilized cutting-edge ZyXEL technological products and end-to-end network solutions to plan and implement a secure network infrastructure at Ardahan University.

The solution provided wireless access services to all campus locations including administrative buildings, service buildings and campus open areas by establishing wireless access points (AP) and PoE (Power Over Ethernet) units.

In all, the project comprised the deployment of 52 ZyXEL NWA3560-N wireless access points, 52 NWA3160-N wireless access points, 52 ZyXEL PoE-12HP PoE injectors and 1 ZyXEL NXC5200 wireless LAN controller. The wireless access points were installed in all indoor and outdoor locations on campus. NWA3560-N is considered the most advantageous AP, especially in small and medium sized enterprises, and can rapidly

Internet infrastructure across its five faculties, three colleges, five vocational schools and two institutes, including the administrative buildings, service buildings and open areas on campus. The goal was to establish wireless LAN access both for university staff and academic units, as well as students and guest users with different network identities.

respond to the growth requirements. High-speed connections were provided outdoors by NWA3160-N access points, which are more durable and are specially developed by ZyXEL for open areas. Installed upstream of all infrastructure, one NXC5200 wireless LAN controller provides wireless LAN management with back-up technology.

Thanks to this project, wireless access was provided to all locations of Ardahan University, including faculties, administrative buildings, dorms, campus open areas and university buildings off campus. As a part of the project, classrooms, amphitheaters, cafeterias, meeting halls, guest houses and other shared spaces were included in the scope of the wireless access. Staff, student and guest networks of Ardahan University were provided to users securely, with eduroam and local radius verification features at all locations, under different wireless network names.

Product Used



NWA3560-N 802.11 a/b/g/n Dual-Radio Business AP

- Higher bandwidth and superior performance with 802.11n
- 3-in-1 hybrid AP WLAN including AP controller mode, managed AP mode and standalone AP mode
- Brand new centralized graphic management interface for up to 24 WLAN APs
- Back-up redundancy supported to provide reliable connection service
- Secured tunnels for communication between controller and managed AP to prevent leaking of configurations
- Enterprise-class AP functionalities with comprehensive configuration interfaces.
- Built with Low Smoke, Zero Halogen (LSOH) materials for plenum rating for UL 2043 support



NWA3160-N 802.11 a/b/g/n Business Access Point

- Higher bandwidth and superior performance with 802.11n
- 3-in-1 hybrid AP WLAN including AP controller mode, managed AP mode and standalone AP mode
- Brand new centralized graphic management interface for up to 24 WLAN APs
- Backup redundancy supported to provide reliable connection services
- Secured tunnels for communication between controller and managed AP to prevent leaking of configurations
- Enterprise-class AP functionalities with comprehensive configuration interfaces.
- Built with Low Smoke, Zero Halogen (LSOH) materials for plenum rating for UL 2043 support



NXC5200 Business Wireless LAN Controller

- Centralized WLAN management and auto provisioning
- Manages up to 240 APs with granular access control
- Advanced RF management for optimized Wi-Fi performance
- Secured wireless edge with IDP, anti-virus and firewall
- Flexible traffic forwarding with tunnel and distributed modes
- Comprehensive guest network management features
- User-centric management solution for BYOD trend



PoE12-HP 802.3af/at PoE Injector

- IEEE 802.3af and IEEE 802.3at Power over Ethernet (PoE) standards compliant
- Install anywhere taking advantage of PoE technology
- Superior safety with overloading and short-circuit protection

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 gone through transformations in the fast-paced networking industry. Delivering cutting-edge communications innovations to more than 400,000 businesses and more than 100 million consumers throughout the world, today ZyXEL is one of the few companies in the world capable of offering complete networking solutions for Telcos, small to medium-sized businesses, and digital home users for a wide range of deployment scenarios. Telco solutions include Central Office Equipment, Customer Premise Equipment, Wired and Wireless Access Network Devices, and Carrier Switches. SMB and Enterprise solutions include Unified Security Gateways, 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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