ZyXEL

Success Story

Students Stay Connected with ZyXEL Dormitory Network

"We wanted an integrated solution that would give us visibility into the wired and wireless networks. We decided to build this infrastructure using ZyXEL products and services. The project would provide internet connections to 289 rooms. The combination of ZyXEL products and the assistance provided by local partner Atasayar Group proved to be the right choice, as we have now seen and personally experienced the positive results."

Jennifer Gurel
General Manager of KYK Düzce

Overview

Customer Name
KYK - the General Directorate of Credi and Dormitories Agency

Customer Industry
Hospitality

Challenges
- Provide wireless network connectivity to a large number of rooms in the student dormitory
- Building architecture was not designed for wireless infrastructure
- Must be able to handle multiple simultaneous requests for internet access
- Solution must provide secure and stable high-speed connections

Solution
- 24-port Gigabit L2 Switch
- 24/48-port Gigabit Smart Managed Switch

Benefits
- Rapid deployment
- Trouble-free communication and support
- Easy installation features
- Simple connectivity in spite of high user traffic
- Stable and fast internet access

Background

The General Directorate of Credit and Dormitories Agency (KYK) is an institution that has provided student loans and scholarships in Turkey since 1962. Most students encounter the agency at least once during their university years, whether in seeking financial help or housing at one of the agency's dormitories. The agency consists of a headquarters, 20 regional directorates, and a dormitory management office reporting to the regional directorates. KYK's dormitory in Duzce hosts 1200 students in its 289 rooms. This institution provides cable internet access in all of its dormitory rooms.

Challenges

Students' need for fast, stable, and secure internet connectivity grows year by year, day by day. New applications and services, such as streaming media and voice and video communication, put added strain on network resources. This is particularly true in college dormitories where large numbers of students go online simultaneously to Skype with family, stream music and video, access study materials, or play games.

This can quickly clog a network and slow service. Network infrastructures need to be robust in order to provide high-quality service to the students in dormitories. For this reason, a cable network infrastructure based on ZyXEL products was chosen to connect the girls' dormitory and its 289 rooms to the internet.

Solutions and Benefits

To implement the project, KYK chose to work with Atasayar Group, a local business partner of ZyXEL. ZyXEL specialists performed an extensive analysis to assess data security and onsite internet roaming requirements of the institution. By using the gathered data, they were able to set up a cable network capable of easily handling heavy user traffic with no degradation of the overall user experience. The backbone of the project would be an array of ZyXEL switches that included the GS2210 Series 24-port Gigabit switch, GS1900 Series 24 and 48-port smart managed switch.

Although at first glance the large number of individual rooms and 1200 students potentially connecting simultaneously at peak hours may present a problem for most cable network infrastructures, these problems were handled easily by the new hardware thanks to the quality of the products and services provided ZyXEL and their local partners.

Products Used

GS2210-24HP
24-port Gigabit L2 PoE Switches

- Fully managed Layer 2 switching solution
- GbE RJ-45 and GbE SFP connectivity
- Complies with IEEE 802.3af PoE and 802.3at PoE Plus
- High 375 W power budget
- L2 multicast, IGMP snooping, MVR and voice VLAN for convergence
- Enhanced network protection with IP source guard, DHCP snooping, ARP inspection, CPU protection
- L2, L3 and L4 filtering, MAC freeze, port isolation, guest VLAN for improved isolation and access control
- Future-proofed with IPv6 support
- Supports ZON Utility and Smart Connect for easier, more efficient setup and management

GS1900 24HP/48HP
24/48-port Smart Managed PoE Switch

- 10/100/1000 Mbps GbE ports
- Easy browser-based switch management
- Quick and easy set up wizard
- Advanced network error prevention features (loop protection, dual images, storm control, DoS and SSL)
- High-power PoE support IEEE 802.3at