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Success Story

Student Guest House Gets Connected with Wired and Wireless Network Project from Zyxel

INDUSTRY	CUSTOMER	REGION	SOLUTIONS
Hospitality	Alka Guest House	Turkey	Zyxel wireless solution

Overview

Challenges

• Large number of rooms on the premises
• Project had to provide secure and stable connectivity
• Network had to be user friendly
• Solution must comply with local regulations

Benefits

• Seamless communication support for quick deployment and easy installation
• Super high-speed response to access requests
• Stable and high-speed Internet access
• Complete signal coverage across multiple stories and rooms

Solutions

• 802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point
• Next-Gen Unified Security Gateway Advanced Series
• 48-port Gigabit Smart Managed Switch
• Wireless LAN Controller

"At Alka Guest House, we feel great pleasure in serving students who receive their educations in our region. In our guest house, just as electricity and water are necessities, we also place Internet access as a priority, and we put this into practice with this project. Thanks to this project, students who become our guests benefit from the latest technologies, both when communicating with their families and in their studies. We thank MEB Computer, who provided support by putting the project into practice in the shortest possible time and determining our needs. We also thank Zyxel, who offered such high-quality products for our use."

Yahya Dediş
Chairman, Alka Group

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Background

The Alka Guest House in Düzce, Turkey offers a complete range of supportive services and facilities for students to achieve success in their academic lives. Located in the heart of the Gölyaka district, the Guest House is also situated in the center of social life. Onsite facilities include a cafeteria, laundry, and ironing room. Housekeeping is provided every other day, as well as 24/7 security, breakfast, and dinner. High-speed Wi-Fi Internet facilities are available on each floor and in the common areas.

Challenges

While all Internet users have seen an increase in their need for fast, stable, and powerful Internet connectivity, students in particular rely high-performance and reliable network connections for their academic needs. Meeting this demand can be challenging, especially when delivering service to larger buildings like hotels, schools, dormitories, and hospitals. The large number of rooms, levels, and users to be provided with connections made it necessary to establish a wireless network infrastructure that is powerful and dependable. This is why Alka Guest House chose Zyxel products and solutions for its wired and wireless network.

Solutions and Benefits

In addition to providing state-of-the-art networking products and end-to-end solutions, Zyxel specialists performed a comprehensive analysis of the guest house's data security and in-building Internet sharing needs. ZyPartner (Zyxel's solution partnership program) member MEB Computer performed the onsite work as the project contractor. Despite the challenges of a large scale project in the education field, the deployment was completed within the target time.

In addition to the development of a wired infrastructure for the guest house, all rooms were transitioned to a wireless network infrastructure. For security purposes, the Mac Learning system was used, which provides connections to a single device in each room.

The backbone of the wired and wireless network infrastructure is a Zyxel GS1920-48HP smart managed switch. The switch allows for easy management and delivers robust security features, as well as reliable high-speed performance. A Zyxel NXC2500 wireless LAN controller provides centralized management of the guest house's Wi-Fi network with connections for up to 64 individual APs. In the case of this project, the APs deployed were WAC6103D-I dual-radio access points with dual-optimized antenna. These APs are designed for medium and high-density environments and have several key advantages in projects where wireless signals must overcome obstruction from multiple walls, ceilings, and floors. Additional security is delivered by a USG 310 next-generation firewall, bringing the project into compliance with Turkey's Internet regulations.

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WAC6103D-I • 802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point

- "Dual-optimized" antenna allows pattern optimization adapting to wall- or ceiling mount installation
- 3x3 802.11ac supports combined data rates of up to 1.75 Gbps
- Load balancing on both standalone and managed modes
- Dual image supports for reliable Wi-Fi connectivity
- Zyxel One Network for standalone AP management

USG310 • Next-Gen Unified Security Gateway Advanced Series

- High-performance, high-value Next Generation Firewall (NGFW) for small and medium-sized businesses
- Complete network protection with firewall, anti-virus, antispam, content filtering, IDP, next-generation application intelligence and SSL inspection
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN high availability (HA)
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 34 APs

GS1920-48HP • 48-port GbE Smart Managed 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, Zyxel 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

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Products Used

- Centralized management for up to 64* APs
- ZyMesh mitigates complex, inconvenient cabling Wi-Fi deployments
- Client steering enhances efficiency of wireless spectrum utilization
- Auto healing maximizes Wi-Fi service availability
- Seamless integration with external AD, LDAP, RADIUS authentication
- Best investment protection with built-in RADIUS server

*Management of 64 APs is supported with firmware version V4.10 or

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.