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Success Story

New Network Infrastructure Keeps Patients and Staff Smiling at Turkish Dental Hospital

INDUSTRY Health Care	**CUSTOMER** Konak Dental Hospital	**REGION** Turkey	**SOLUTIONS** Zyxel Switching Solution

Overview

Challenges

• Large number of floors and rooms weaken and block wireless signals
• Legacy infrastructure could not meet modern demands
• Age of building made upgrades difficult
• Network must comply with local regulations

Solutions

• 24-port 10 Gigabit L2+ Switch
• 48-port Gigabit L2 Switch with 10G Uplink

Benefits

• Rapid deployment and trouble-free communication support thanks to easy installation features
• Quick connections despite high level of access request
• Stable and fast Internet access

"eIFA has been involved as one of Zyxel's ZyPartners for many years. We have also conducted many successful projects together thus far in our region. This project brought to life in Konak Dental Hospital is a clear example of our competence in the healthcare industry. We will continue accomplishing similar types of projects by working together with Zyxel in the future."

Fatih Yıldırım
General Manager, eIFA Information and Communication Systems

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Background

Izmir Konak Dental Hospital was originally constructed in 1851 as a two-story building made of masonry and wood — one story for women and one for men. The building had a big garden and a special mansion reserved for the use of statesmen. In 1950, the institution was registered to the Ministry of Health and Social Welfare and was named Izmir Public Hospital.

On September 12, 1990, Konak became the first education and dental care hospital in Turkey through the efforts of the Ministry of Health. The institution, which started offering pediatric dental surgical clinic services for the first time in Turkey in 2007, is still active to this date, serving public 24 hours a day, seven days a week. While the hospital has been fully automated with computers since 1997, the network infrastructure was fully renewed through the cooperation with Zyxel.

Challenges

Like other large-scale public facilities, today's hospitals rely on fast and dependable network connectivity to carry out daily operations. Such facilities often require multiple staff members and management to have access to network resources across multiple floors and rooms. Providing uninterrupted services in such an environment can be challenging as floors and walls can block and weaken WiFi signals. In addition, the increased demand for network resources and bandwidth can hamper network performance. In response to this need, the demand for high capacity switches in network infrastructures has increased. In designing a new wired and wireless network infrastructure for Konak Dental Hospital, such switches would provide the back bone of the solution.

Solutions and Benefits

To establish the wired and wireless network with end-to-end solutions, state of the art Zyxel products were deployed with the assistance of local ZyPartner eIFA Information and Communication Systems.

Zyxel XS3700-24 10 Gigabit L2+ switches were selected for the hospitals new network infrastructure. Although the large number of rooms was initially considered to be a hurdle for a wired and wireless network infrastructure meant to provide seamless, high-speed communication, the problem was easily overcome through the quality of service and product solution provided by Zyxel.

"We are glad to have realized another healthcare industry-related project in İzmir, one of the most beloved cities of Turkey, said Selim Yavuz Demircan, Zyxel channel project sales manager. "Zyxel's end-to-end secure network solutions also come with important advantages for our customers engaged in fields such as health care and education. The structure can be managed from a single location using physical controls, which is very important for steady and stable system operation. Also, Zyxel Turkey's 24/7 technical support allows opportunities for instant response in solving problems that may arise."

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Products Used

XS3700-24 • 24-port 10 Gigabit L2+ Switch

- Flexible 10GbE connectivity with 12 SFP+ ports, 8 10G BASE-T ports and 4 SFP+ combo ports
- Layer-2 plus (L2+) feature set equipped with static , policy route and VRRP
- Hot-swappable power supply and fan modules
- No single-point of failure hardware and software design
- Future-proofed with IPv6 support
- Comprehensive security features to ensure network availability

XGS2210-52 • 48-port Gigabit L2 Switch with 10G Uplink

- Gigabit connectivity, plus four (4) SFP+ ports to deal with high-bandwidth network with ease
- Physical stacking up to 2 units through 2 standard 10G SFP+ ports
- VLAN communication through access switch by static routing feature for agile, reliable network operations
- Supports sFlow that analyzes client behavior to discover source of bandwidth abuse
- Enhanced network protection with IP source guard, DHCP snooping, ARP inspection, CPU protection

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.