

## Success Story

### Manufacturer Connects Campus with Zyxel Network Solution



SMB



Polat  
Machinery



Turkey



wired &  
wireless  
solution

## Overview

### Challenges

- Four group companies were required to have independent VLAN structures
- Provide support for active network devices, including IP cameras
- IP CCTV security cameras must be managed centrally

### Benefits

- Independent VLAN structure scenarios were prepared and applied for 4 group companies
- Company networks were isolated from each other by providing a separate IP pool for each company
- IP cameras (CCTV) were made centrally manageable
- Active network devices were rebuilt with the principle of management from a single center
- Edge cabinets and system rooms were established in all businesses located within the Polat Machinery campus
- Communications of edge cabinets and system rooms were provided by fiber-optic infrastructure

### Solutions

- 24HP/48HP Gigabit Smart-Managed PoE Switch
- 24-port GbE L3 Switch with 10GbE Uplink
- Wireless LAN Controller
- 802.11ac Dual-Radio Dual Mount PoE Access Point
- 802.11ac Dual Radio Smart Antenna 2x2 Access Point

"For our wired and wireless networks covering all areas of our establishment, from the computers of engineers to the manufacturing lathes, we needed a faster network that supports broadband. We also requested that IP cameras located in our facility become centrally viewable and manageable. For these reasons, we decided to completely change the network infrastructure of our company. We chose many products of Zyxel from edge switches to access points for the network installation. Independent VLAN structure scenarios were prepared and applied for each company. When we put our new network into service, we realized that the management of Zyxel switches was significantly easier than other switches."

Muammer Ustaoglu  
IT Manager, Polat Group

## Background

Polat Group has been one of the world's giants in reducer manufacturing since 1998. With its central factory located in Aydın, Turkey the company has regional directorates in Ankara and İstanbul, along with a facility in Ahlen, Germany.

Factories and sectors from construction to textile use Polat products, and they are exported from Aydın to the world. With sales offices in many countries, Polat Group carries out the manufacturing in 16,000 square-meter enclosed facility. The company employs 280 individuals that produce 250,000 reducers per year, executing

manufacturing in many product groups such as motor-driven reducers, worm gear reducers, and servo drives, among others.

Within the entire enclosed Polat Group campus, computers and lathes operate while connected to the system via wired and wireless networks. IP cameras used for the campus security also operate while connected to the computer network.

## Challenges

Polat needed to prepare and establish independent VLAN scenarios for four subsidiary companies located within the campus. In addition, the security cameras needed to be connected and centrally managed through the network.



## Solutions and Benefits

Zyxel provided Polat Machinery with the needed solution with assistance from Fibes Technology, a local Zyxel partner. VLAN scenarios were deployed and configured, and IP security cameras included in the new network can be centrally viewed and managed. Communication between edge cabinets and system rooms was reconfigured via fiber-optic cable connection.

Following the deployment project, Polat Machinery staff had access to a reliable, fast network infrastructure featuring IP cameras and Zyxel network solutions centrally manageable by the company's IT department. The company successfully eliminated previous problems

resulting from insufficient network capacity.

"As Fibes Technology, we have provided a complete service for the companies of Polat Machinery within the scope of IP CCTV and network infrastructure renewal project," said Selami Uçar, General Manager, Fibes Technology and Security Systems. "At the conclusion of the detailed needs analysis and project design, we have positioned end-to-end Zyxel solutions within the infrastructure. We supported the project through our synergy and expertise. We are proud to deliver a good project thanks to the business partnership of Zyxel, Fibes, and Polat."

## Products Used

### GS1910 Series • 24/48 Gigabit Smart Managed Switch



- Smart GbE L2 ACL switching features
- 88/ 104 Gbps non-blocking switch fabric
- Supports IPv6

### GS1920 Series • 24HP/48HP Gigabit Smart-Managed PoE Switch



- Smart managed switch with rich L2 features
- GbE RJ-45, GbE combo (RJ-45/SFP) and fixed GbE SFP connectivity
- 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

### XGS-4528F • 24-port GbE L3 Switch with 10GbE Uplink



- Fully managed Layer 3 switching solution with 10G uplink connectivity
- Resilient networking with RSTP, MSTP, MRSTP, ECMP and VRRP support
- RIP, RIPv2, DVMRP and OSPF for advanced routing applications
- Advanced security with multilayer (L2/L3/L4) ACL, Guest VLAN and CPU protection
- CoS, DSCP, IGMP snooping v1, v2, v3 and MVR for convergence
- Future-proofed with IPv6 support

## NXC2500 • Wireless LAN Controller



- Centralized management for up to 64\* APs
- ZyMesh mitigates complex, inconvenient cabling WiFi deployments Comprehensive features for WLAN performance optimization and always-on WiFi connectivity
- Seamless integration with external AD, LDAP, RADIUS authentication
- User-friendly authentication by QR code facilitates keyboard-less mobile devices accessing Internet

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

## NWA1123-AC PRO • 802.11ac Dual-Radio Dual Mount PoE Access Point



- Dual-optimized antenna for wall/ceiling-mount installations
- Enterprise class 802.11ac AP supports combined data rates of up to 1.75 Gbps
- Better coverage with optimized antenna and RF design
- Flexible operating modes
- Reliable software and robust hardware design

## WAC6502D-S • 802.11ac Dual Radio Smart Antenna 2x2 Access Point



- ZyXel smart antenna with more than 700 optimized antenna patterns provides breakthrough performance anywhere
- Ideal for high-density and interference-laden indoor environments
- Advanced IEEE 802.11ac offers up to 1.1Gbps combined data rates
- Industry-leading Rx sensitivity as low as -102 dBm
- AP Flex™, DCS and tool-less bracket design streamline deployment
- ZyXel One Network is supported

### 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.

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