



## Success Story

### Mining Company Strikes Gold with Zyxel Wired and Wireless Solution



SMB



MNG Gold



Turkey



Zyxel  
wireless  
solution

## Overview

### Challenges

- Large multi-room, multi-story structure creates wireless signal barriers
- High potential for signal loss dead zones in buildings

### 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

### Solutions

- 802.11ac Dual Radio Smart Antenna 2x2 Access Point
- 24-port GbE L2 Switch
- Unified Security Gateway
- 24/48-port Gigabit L3 Switch with 10-Gigabit Uplink

"At MNG Gold, a part of the MNG Group, we use cutting-edge technologies in our business operations, as is the case for the entire group. We selected Zyxel solutions and Aybiltech Bilgisayar, Zyxel's business partner, to set up the wired and wireless networks at our headquarters in Ankara. We want to thank all the teams who contributed in this project."

Ender DEMİREL  
IT Manager, MNG Gold

## Background

MNG was established in 1976 by Mehmet Nazif Günel, who used his own initials to name the company. Over the years, MNG has transformed itself into a giant community, conducting business across multiple industries including construction and contracting, tourism, air transportation, surface cargo transportation, finance, and energy sectors while employing more than 20,000 people. MNG Gold commenced operations in July of 2013, forging the last link in the corporate chain. The new division is capable of performing domestic and international exploration and development of mineral resources, commissioning these projects with its professional staff.



## Challenges

International corporations need to provide staff with fast, stable, and secure connectivity to ensure smooth operations. This is especially true in large facilities with multiple rooms and levels. Numerous walls, floors, ceilings, and other barriers can degrade signal strength, leading to dropped connections and interference. This was just the challenge that MNG was facing for the headquarters of its mineral exploration and development operations in Ankara, Turkey. Not only did the domestic staff require reliable service in the

home office, but they needed to connect effortlessly to their satellite offices in West Africa.

## Solutions and Benefits

The project was carried out with expert assistance from local Zyxel partner Aybiltech Bilgisayar and called for the deployment of firewall solution at the MNG Gold headquarters in Ankara. Peer-to-peer Zyxel products were used to provide VPN connections within the multi-location holding structure. All networks for the African gold mines utilized Zyxel wired and wireless solutions

Zyxel specialists performed an extensive analysis to determine MNG's data security and interior Internet roaming requirements before setting up a cable network using industry leading end-to-end solutions. A trouble-free coverage area was established using the WAC6502D-S 802.11a/c access points equipped with smart antenna technology. Zyxel's USG1900 unified security gateway was the chosen firewall for both the domestic and international locations.

Though multiple locations and rooms can often pose a problem for wired and wireless network infrastructures by limiting signal strength and creating dead zones, the challenge was easily overcome through the quality of service and superior technology provided by Zyxel. Zyxel's solutions were deployed throughout various stages of the project, and were expertly installed and serviced by local ZyPartner solution partner Zyxel Aybiltech Bilgisayar.

"At the completion of the project, our mines in Africa were able to communicate directly with our headquarters. Similarly, wired and wireless networks at our headquarters have been updated to become extremely reliable." said Ender DEMİREL, the IT Manager at MNG Gold

## Products Used

### 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

### GS2210-24HP • 24-port GbE L2 PoE Switch



- High power budget of 375 W
- 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
- Zyxel One Network is supported

### USG1900 • Unified Security Gateway



- Next Generation Firewall (NGFW) for medium and large-sized businesses and campuses
- Anti-malware protection with firewall, anti-virus, anti-spam, content filtering, IDP, next-generation application intelligence and SSL inspection
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN high availability (HA)
- Unified security policy
- Cloud helper provides friendly firmware upgrade
- Device HA Pro ensures smart handover
- Hotspot management is supported

## XGS4700 Series • 24/48-port Gigabit L3 Switch with 10-Gigabit Uplink



- IPv4/IPv6 Routing
- L3 advanced routing protocols, OSPF, DVMRP, VRRP and ECMP
- Optional modular 10 Gigabit Ethernet support
- Multilayer-aware (L2/L3/L4) ACL for security protection and traffic optimization
- Guest VLAN
- IGMP Snooping v1, v2, v3, MVR
- sFlow, CPU protection
- RSTP, MSTP, MRSTP, VRRP
- Removable fan and power modules

### 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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