



Success Story

World's Second Largest Egyptian Museum Receives ZyXEL Wireless Solution

Overview

Customer Name

Egyptian Museum of Turin, Italy
(Museo Egizio di Torino)

Customer Industry

Art and Culture

Challenges

- Provide continuous wireless connectivity and services to numerous museum visitors in historic building
- Support multimedia mobile apps
- Provide Google Glass support for hearing impaired visitors
- Support internal VoIP calls
- Support security features such as cabinet alarms

- Hardware must be easily hidden and not disrupt museum visual aesthetics

Solutions

- 802.11 a/b/g/n Dual-Radio Unified Access Point
- Dual-Radio Unified Access Point
- Wireless LAN Controller
- 8/24-ports GbE L2 PoE switches
- Unified Security Gateway

Benefits

- Ability to deliver a wide range of services without worry of negatively impacting performance
- Future-proof solution for easy upgrade
- Complete coverage of nearly 300-year-old building
- Money-saving replacement of outdated guide technology
- Provide new support for hearing impaired visitors

Background

The Museo Egizio is a museum in Turin, Italy, specializes in Egyptian archaeology and anthropology. It houses the world's second-largest collection of Egyptian antiquities after the Egyptian Museum in Cairo, and it receives over 550,000 visitors each year, making it one

of the ten most visited sites in Italy. It was formally founded in 1824 with the acquisition by King Carlo Felice of a collection of 5200 objects gathered by Bernardino Drovetti. It is located in an historical 17th century palace built by the architect Guarino Guarini.

Challenges

The Museo Egizio recently underwent a complete renovation, which was completed in early 2015. The renovation included a list of new convergent services to be delivered over the multiple VLANs of the wireless LAN:

- Multimedia mobile apps
- The innovative Google Glass support for hearing-impaired visitors (GOOGLEGLASS4LIS)
- Internal VoIP calls

- Cabinet alarms

The solution had to support mobile connectivity for a large number of visitors in a spacious historical building from the 17th century. In addition, the products had to be easily hidden so as not to ruin the rooms' layout and visual aesthetics. It was also important to install a future-proof solution, because the museum receives funds for renovation on an average of every ten years.

Solutions and Benefits

The choice was made to install a mix of 60 ZyXEL WAC6502D-E Access Points and 20 NWA5123-NI Unified Access Points controlled by a NXC5500 Wireless LAN Controller. The WAC6502D-E are installed in the larger visitor rooms because they guarantee excellent coverage thanks to its unique RF design, and are future-proof with the AC wireless standard. The NWA5123 were chosen for some smaller rooms, warehouses and offices, because of their small size. Some NWA5123-NI APs were painted black to camouflage and more easily hide them from sight. The switches selected were 12 GS2210 8/24-ports GbE L2 switches with PoE. A USG1900 Next-Generation Unified

Security Gateway provides UTM services.

The museum chose to install a high-end wireless solution so it will be able to deliver its new services without fear of performance degradation, and the technology can be easily updated within the next decade. Management will be able to replace the older audio guides, saving money on maintenance and batteries. The visitors' experience will benefit from new content, and the innovative technology of GoogleGlass4LIS will assist hearing-impaired visitors.

Product Used



USG1900 Unified Security Gateway

- High-performance, high-value Next Generation Firewall (NGFW) for medium-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 streamlines the configuration and management efforts
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 18 APs
- ZyXEL One Network is supported



WAC6502D-E 802.11ac Dual Radio External Antenna 2x2 Access Point

- Advanced IEEE 802.11ac delivers up to 1.75 Gbps combined data rates
- Industry-leading receive sensitivity as low as -100 dBm
- APFlex™, DCS and tool-less bracket design streamline deployment
- ZyXEL One Network is supported



NWA5123-NI 802.11 a/b/g/n Dual-Radio Unified Access Point

- Ceiling and wall mountable
- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- 2.4 GHz and 5 GHz concurrent dual-band
- High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)
- ZyXEL One Network is supported



NXC5500 Wireless LAN Controller

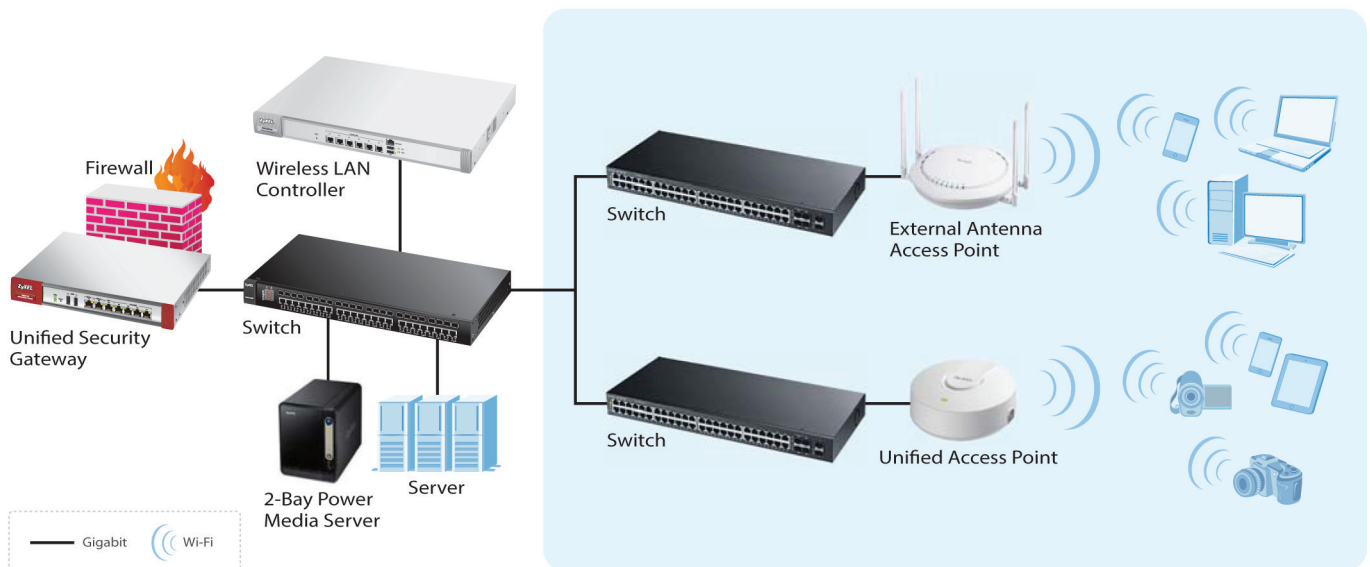
- Centralized WLAN management and auto provisioning
- Manages up to 512 APs with granular access control
- ZyMesh simplifies complex, inconvenient cabling Wi-Fi Deployments
- Comprehensive features for WLAN performance optimization and always-on Wi-Fi connectivity
- Wireless LAN performance optimization via dynamic channel selection and load balancing
- Guest authentication by QR code



GS2210 Series GbE 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 power budget of 375W (24HP) and 180W (8HP)
- 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
- ZyXEL One Network is supported

Diagram



About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modern manufacturers, ZyXEL has gone through transformations in the fast-paced networking industry. Delivering cutting-edge communications innovations to more than 400,000 businesses and more than 100 million consumers throughout the world, today ZyXEL is one of the few companies in the world capable of offering complete networking solutions for Telcos, small to medium-sized businesses, and digital home users for a wide range of deployment scenarios. Telco solutions include Central Office Equipment, Customer Premise Equipment, Wired and Wireless Access Network Devices, and Carrier Switches. SMB and Enterprise solutions include Unified Security Gateways, LAN Switches, WLAN, and IP Telephony. Digital Home solutions include Network Connectivity Devices and Multimedia Solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

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