



## Success Story

### Bologna's Historic Palazzo Re Enzo Receives Wi-Fi Makeover



Hospitality

INDUSTRY



CUSTOMER

Bologna  
Welcome



REGION

Italy



SOLUTIONS

Zyxel  
wireless  
solution

## Overview

### Challenges

- Create fast, reliable, secure, and flexible wireless network
- Provide separate centralized management
- Provide complete Wi-Fi coverage for four event halls
- Solution must be easy to manage with limited staff
- Network infrastructure has to comply with local regulations

### Benefits

- Efficiently separates network used by staff and management from visitor network
- Allows easy integration of networks covering adjoining spaces
- Provides customizable management of secure login, user authentication, email registration, and social login
- Creates secure, flexible, and stable network environment
- Provides full compliance with local standards and regulations
- Solution creates minimal impact of centuries-old architecture and environment

### Solutions

- 802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point
- Wireless LAN Controller
- Unified Access Gateway
- 24/48-port Gigabit L2 PoE Switch
- Next-Gen Unified Security Gateway Extreme Series
- Unified Security Gateway

## Background

The prestigious 13th-century Palazzo Re Enzo is a medieval-era palace that has been transformed into multipurpose center set in the historic heart of Bologna. With 2,500-square-meters of usable space, the Palazzo now serves as one of the primary conference venues in the city. Its structure is suited to many uses. Up to three meeting rooms can be utilized at the same time, while a total area of 1,700 square meters may be used for the organization of exhibitions, shows, or major events. It can easily be configured as a conference center equipped with the latest technology, or as an elegant location for gala dinners, depending on the needs of the event organizers.



## Challenges

The client needed a reliable, fast, secure, and flexible networking infrastructure in which the internal network could be managed separately from the hospitality areas of the internal halls in the Palazzo Re Enzo. The four main halls had to be equipped with Wi-Fi antennas to provide simultaneous access to the Internet for the guests during

organized events. All of this needed to be achieved with a minimal administration load for the internal operators, maximum safety, and complete conformity with regulations related to Internet access.

## Solutions and Benefits

Drawing on their extensive experience and the deep knowledge of Zyxel solutions, local partner Cedab designed a solution that would meet the client's needs.

To provide efficient network management, a total of four GS2210 series high-performance Layer 2 managed switches were deployed. Two of these utilize PoE technology to power 15 ultra-fast and thin WAC6100 series 802.11ac Dual-optimized Antenna access points. These APs are managed by an NXC2500 wireless LAN controller. The Wi-Fi areas that are open to the public are handled by UAG 5100 unified access gateway. A next-generation USG firewall provides network security and VPN management for the airport headquarters as well as the external

supply and maintenance equipment.

With the implementation of a centrally managed and articulated network structure, the office network was separated from the networks used in the conference halls, thus allowing the integration of the latter when organized events are held in adjoining spaces. The management of wireless services allows the event organizers to choose preferred authentication modes — such as text message, email registration, or social login — to supply wireless service in the most secure and flexible manner. All of this is possible thanks to the applied navigation filters, which are in complete compliance with legal regulations and fully secured.

## 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

## UAG5100 • Unified Access Gateway



- Supports 500 concurrent logins by default and up to 800 via license upgrade
- Integrated account generator, Web-based authentication portal and billing system
- Supports up to ten (10) SP350E Service Gateway Printers and SMS ticketing with ViaNett protocol
- Per account bandwidth management
- Dual-WAN load-balancing, failover and fall back support
- Built-in WLAN controller (supports 8 APs by default and up to 32 APs via license upgrade)
- Facilitates compliance with data retention regulations
- Provides ten (10) IPSec VPN tunnels for remote management by MSPs

## GS2210-24/48HP • 24/48-port Gigabit 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 375 W power budget
- 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
- Supports ZON Utility and Smart Connect for easier, more efficient setup and management

## USG1100 • Next-Gen Unified Security Gateway Extreme Series



- High-performance, high-value 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 streamlines the configuration and management efforts
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 66 APs

## USG100 • Unified Security Gateway



- Robust security without sacrificing performance
- Comprehensive support to IPv6
- Robust hybrid VPN (IPSec/SSL/2TP)
- Zero-configuration remote access with EASY VPN
- Supports L2TP VPN on mobile devices (iPhone and Android phones)
- ICSA Firewall, IPSec certification
- Content filter stops malware and Web threats
- Powerful Email security
- Non-stop Internet access with multiple WAN and 3G backups

## NXC2500 • Wireless LAN Controller



- 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.

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