



Success Story

13th Century Italian Friary Gets 21st Century ZyXEL Network Upgrade

Overview

Customer Name

Theological Institute of Assisi

Customer Industry

Education

Challenges

- Provide wireless coverage on two floors of an 800-year-old friary building
- Provide secure Internet access for students and faculty
- Have minimal impact on artistic and architectural treasures
- Easy management and maintenance

Solutions

- 802.11 a/b/g/n Unified Access Points
- Wireless LAN Controller
- Gigabit Ethernet Smart Managed PoE Switches
- Unified Access Gateway
- Next-Gen Unified Security Gateway

Benefits

- User accreditation via UAG firewall
- Small APs have minimal visual impact
- Wireless LAN controller provides range of mobility features
- Easy to set-up and maintain
- Simple account management
- Unified Threat Management (UTM) via firewall
- Compact switches are easy to manage and deploy

Background

The Holy Friary of the Franciscans Order in Assisi is located next to the Basilica of San Francesco, and was founded by Pope Gregorio IX on July 17, 1228, the day after the canonization of Saint Francis. The Friary was built as a fortress, and its huge walls and archways dominate the plain of Assisi. In 2000, it was designated as a UNESCO

World Heritage Site. Since 1971, the location has housed Theological Institute of Assisi, accredited by the Lateran to train international students from all three branches of the First Order, several Franciscan sister communities, and the Benedictines.

Challenges

The institute needed to provide wireless coverage over two floors of the Holy Friary, with access for students and professors. The project was made difficult by the high historical and artistic value of the building. Most of the walls and ceilings are covered with paintings from the Italian Middle Ages and Renaissance, and the 13th century

walls are up to five meters thick. Furthermore, the institute wanted the easiest solution possible for maintenance and management, together with the highest possible level of security for the Internet connection.

Solutions and Benefits

It was decided that the best solution was to install 10 NWA5121-NI 802.11 a/b/g/n unified access points, because of their small design. These are controlled by an NXC2500 Wireless LAN Controller to guarantee mobility features and easy maintenance. GS1900 8-ports GbE Smart Managed PoE switches were also chosen for their small dimension and easy management. A UAG2100 Unified Access Gateway provides accreditation to users, while a USG110 Next-Gen Unified

Security Gateway provides UTM services.

Now that students and professors of theology have wireless access to two different VLANs, they can enjoy excellent quality of the coverage, mobility inside the buildings, and enhanced security features. In addition, all of the devices were easy to hide because of their small design, and extremely easy to maintain.

Product Used



NWA5121-NI 802.11 a/b/g/n Unified Access Point

- Ceiling and wall mountable
- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)



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 above



GS1900-8HP GbE Smart Managed PoE Switches

- 10/100/1000 Mbps GbE ports
- Easy browser-based switch management
- Quick and easy set up wizard
- Advanced network error prevention features (loop protection, dual images,
- storm control, DoS, SSL)
- Fanless design
- Green Ethernet IEEE 802.3az support and intelligent ZyXEL green features



SP350E
Service Gateway Printer

UAG2100 Unified Access Gateway

- IEEE 802.11 a/b/g/n dual-radio (2.4 GHz and 5 GHz) design
- Supports 100 concurrent logins by default and up to 200 via license upgrade
- Integrated account generator, Web-based authentication portal and billing system
- Supports external RADIUS servers
- Per account bandwidth management
- SP350E Service Gateway Printer enables one-click account and billing generation
- Built-in WLAN controller
- Facilitates compliance with data retention regulations

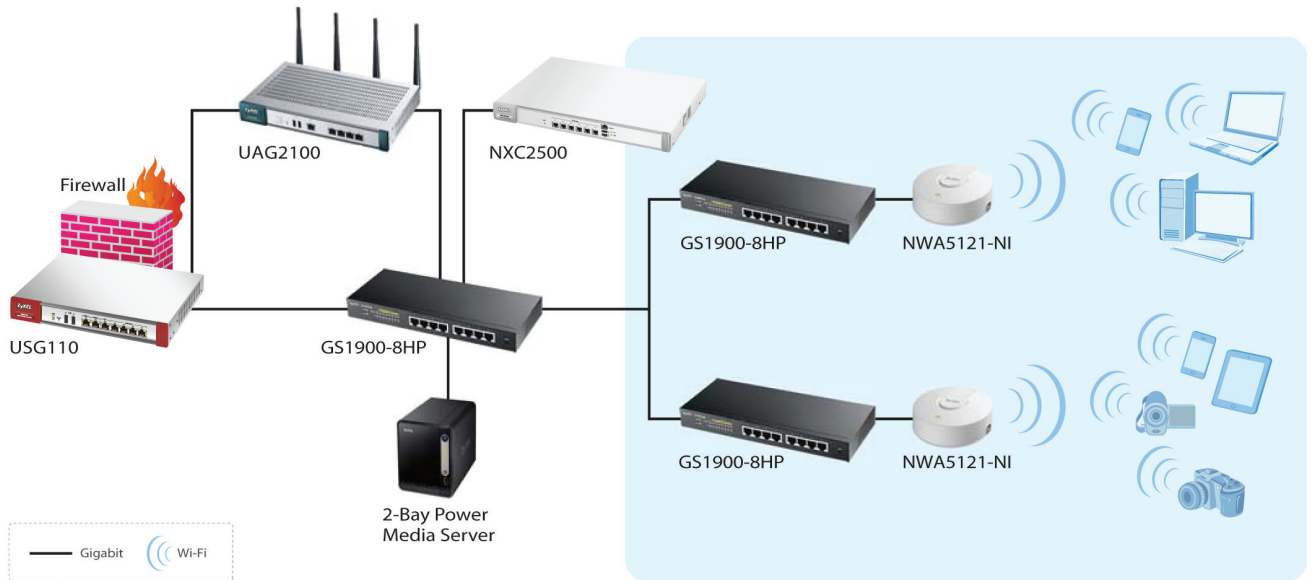


USG110 Unified Security Gateway

- High-performance, high-value Next Generation Firewall (NGFW) for small and medium-sized businesses
- 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)
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 18 APs
- Comprehensive mobile broadband USB modem compatibility and multi-WAN load-balancing, failover and fall back support



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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