ZYXEL
COMMUNICATIONS

Zyxel provides high-speed and cost-efficient GPON network to the University of Buenos Aires

Established in 1947, the Faculty of Dentistry, UBA currently provides instruction for 2,000 students. It functions as a university hospital, providing 24-hour dental services. Its 18-floor multi-functional building contains offices and workspaces, including intervention rooms, operating rooms, a laboratory, a dining room, and a library.

The Faculty of Dentistry desperately needed faster internet connections and a more secure network to protect the privacy of the administration, instructors, students, and patients. The school sought a new solution suited to the high-density environment of the faculty building while remaining within a tight budget. Zyxel's flexible and comprehensive GPON End-to-End Solutions delivered what was needed.

With the growth of connected devices and an expanding staff, network performance and data transfer speeds were becoming untenable. The school knew the Ethernet network infrastructure was in desperate need of an upgrade. However, a messy and complex cable deployment made maintaining old equipment and adding new hardware difficult and costly. While remaining within a tight budget, the school required secure and separate network services for its IT administrators, faculty, students, patients, and visitors.

UBA
Universidad de Buenos Aires
Argentina virtus robur et studium

Founded in 1821, the University of Buenos Aires (UBA) is not only Argentina's largest school but is one of the most renowned centers of learning anywhere in South America.

Main challenges

The school was looking for a new solution to enhance network performance in the high-density environment of the faculty building without exceeding a tight budget.

Zyxel's OLT1408A 1U Pizza Box 8-port GPON Optical Line Terminal, the backbone of the dental faculty's new infrastructure, was installed in the data center on the building's 18th floor and connected to fiber splitters on every floor. Supporting multiple interfaces, the OLT1408A integrates a range of services through one central active unit. This new infrastructure eliminated the need for Ethernet switches on each floor. The faculty reclaimed the space previously taken up by cables and server racks, reducing maintenance. In addition, the OLT1408A supports up to 512 pieces of customer premises equipment (CPE), thus the building's infrastructure can be easily expanded at a minimal cost in the future.

The OLT1408A connects to PMG5671GA Dual-Band Wireless AC GPON HGU and PMG1005 GPON SFU. The PMG5617GA connects to faculty PCs, providing stable, high-speed wired and wireless connectivity in their offices. Meanwhile, the PMG1005 connects to Zyxel access points (AP) to deliver seamless wireless connectivity in public areas throughout the building.

Easy installation and maintenance were additional reasons the school chose Zyxel. In contrast to the previous Ethernet network, Zyxel's GPON End-to-End Solutions feature far simpler cable deployment. Thanks to a centralized network management system, all network devices can be monitored, configured, and managed remotely from the IT administration office.

Through this partnership with Zyxel, staff, students, patients, and visitors of the Faculty of Dentistry can now enjoy speedy, stable, and secure WiFi service throughout the building.

Zyxel solutions

- Zyxel OLT1408A Pizza Box 8-port OLT provides up to 1K FTTH connectivity with split ratios of up to 1:128.
- Zyxel PMG5617GA Dual-Band Wireless AC GPON HGU with 4-port GbE LAN delivers Gigabit-speed WiFi connectivity.
- Zyxel PMG1005 GPON SFU with 1-port GbE LAN provides a compact and simple bridge to Gigabit data access.
- Zyxel NetAtlas EMS offers a robust management, deployment, and provisioning solution.

Core benefits

- High-speed, cost-optimized wired connectivity through Zyxel GPON End-to-End Solutions.
- Simplified deployment and management of all network devices via a centralized network management system.

Featured products

OLT1408A

1U Pizza Box 8-port GPON OLT

- 8 ITU-T G.984-compliant GPON ports; each port supports up to 128 ONTs
- Four 10G, eight 2.5G and eight 1G uplink ports
- Comprehensive QoS for enhanced triple-play experience
- Field-proven IGMP snooping and proxy for IPTV deployments
- Sophisticated OAM&P features
- Compact size and front access design for easy installation and deployment
- Zero-Touch Provisioning for fast ONT commissioning
- Layer 3 routing support and ACL for improved network traffic control

PMG5617GA

Dual-Band Wireless AC GPON HGU with 4-port GbE LAN

- Concurrent dual-band wireless circuit design
- Remote management via OMCI and APS
- Zyxel-developed OPAL for superior flexibility and faster time to market

PMG1005

GPON SFU with 1-port GbE LAN

- Supports Gigabit data access via passive fiber
- Compact size and simple bridge design for easy installation and deployment
- Remote management via OMCI

NetAtlas

NetAtlas Element Management System

- Intuitive Graphical User Interface (GUI)
- Fast system recovering
- Up to 300 concurrent remote login clients
- Periodical configuration file backup
- Batch firmware upgrade and service provisioning
- XML/SOAP northbound interface supported

For more product information, visit us on the web at https://service-provider.zyxel.com

Customer story UBA