



Enhancing Student Living with More Efficient, Smarter Dorm Networks

Overview

As a vital part of campus life at Providence University, providing high-quality wireless network in dormitories is crucial for the learning and daily lives of resident students. A stable and fast wireless network not only enhances students' learning efficiency but also meets their extracurricular needs. How to establish such a network and enable staff to easily monitor and manage dormitory networks directly impacts the overall learning outcomes and convenience of students' lives, and also places higher demands on the school's network service quality.

Zyxel Networks' Nebula solution integrates firewalls, network switches, and wireless access points into a single management platform, enabling real-time network monitoring and automatic wireless signal optimization. This significantly improves network management and performance within the dormitories. The solution's scalability easily accommodates growing student populations and increasing network demands.

Challenges

Providence University faced significant challenges in managing its dormitory network. Ensuring stable wireless connectivity while maintaining sufficient bandwidth for students was difficult, and outdated hardware further impacted connection quality. Limited IT management staff struggled to oversee the extensive network, making it hard to maintain performance and resolve issues promptly. Additionally, the large volume of network equipment required regular maintenance, highlighting the need for an easy-to-manage solution that could deliver reliable wireless access across the dormitories.

Customer

Providence University

Industry

Education

Location

Taichung, Taiwan

Partner

Cheng Yeh Technologies

Customer Background

Providence University (PU), founded in 1956 in Taichung by the Sisters of Providence, is a Catholic university committed to holistic education. Guided by the values of altruism and social responsibility, PU fosters global-minded professionals. It has six colleges and serves over 10,000 students. PU is Taiwan's first member of the International Student Exchange Programs (ISEP), and partners with 425 sister schools to promote global exchange and interdisciplinary, sustainable learning.



Solutions

The Zyxel Nebula solution centrally manages firewalls, network switches, and wireless access points through a single interface, allowing administrators to monitor network usage and automatically optimize wireless signals. This significantly enhances network management and performance in the dormitories of Providence University. With its powerful scalability and processing capabilities, Nebula can easily handle growing student populations and increasing network demands.

The GS1920-24 smart managed switch, equipped with NebulaFlex technology, provides flexible and simplified network management. The XGS2220 L3 access switch features high-performance 10G ports that deliver fast network connections and efficient traffic management, ideal for high-density device environments.

The NWA210AX WiFi 6 access points use WiFi 6 technology to provide fast and stable wireless connectivity, ensuring reliable performance and easier network management. The USG FLEX 500 firewall offers comprehensive and adaptive cybersecurity protection, backed by cloud-based collaborative threat intelligence to ensure secure and stable dormitory network access.

Results

Deploying the Zyxel Nebula solution has significantly enhanced network management and performance in Providence University's dormitories. Its user-friendly design overcomes the shortage of IT personnel. The upgraded hardware delivers fast, stable wireless connections, while the USG FLEX firewall ensures robust security through flexible features and cloud-based threat intelligence. The system's scalability allows it to smoothly handle future growth in users and network traffic. Overall, this network upgrade creates a reliable and high-speed wireless environment that supports better learning experiences and greater convenience for students.

- Faster, more reliable WiFi with sufficient bandwidth for enhanced student experiences
- Simplified, centralized management reduces IT workload and streamlines maintenance across multiple devices
- Strengthened cybersecurity and stability with flexible, cloud-based protection

Product List



- NWA210AX WiFi 6 Access Point



- XGS2220-30F L3 Access Fiber Switch
- GS1920-24 Smart Managed Switch



- USG FLEX 500 Firewall

