Empowering Digital Transformation to Create Better Learning Environments

Overview

When driving digital transformation, Si Wei Senior High School encountered challenges such as limited bandwidth, poor wireless coverage, and budget constraints. Lacking dedicated IT staff, the school needed a solution that was both powerful and easy to manage.

Zyxel Networks provided a tailored solution to address these issues, featuring the WAX610D WiFi 6 access point for high-speed connectivity and reliable campus-wide coverage. The deployment also included the XGS4600-32F L3 aggregation fiber switch and GS1900-24HPv2 PoE switch, delivering optimal performance while balancing cost-effectiveness. Additionally, the Nebula cloud networking management platform streamlined network administration with easy troubleshooting and real-time support.

The school implemented wireless networking, improving usability and enabling students and teachers to access digital resources anytime, anywhere using mobile devices. This comprehensive solution simplified wireless network deployment, and enabled the seamless implementation of smart classrooms, enhancing educational quality and accelerating digitalization.

Challenges

The school needed to enhance its campus network bandwidth to support the increasing demands of digital learning, ensuring that students and teachers could access online resources seamlessly. However, the existing wireless access points provided poor coverage and performance, disrupting the learning environment. The school needed a comprehensive and integrated wired and wireless networking solution to improve network quality. Budget constraints further complicated the selection of high-performing yet cost-effective network equipment. Additionally, the lack of dedicated IT staff made it crucial to implement a solution that was easy to manage and maintain without requiring extensive technical expertise.

Customer
Si Wei Senior High School

Industry
Education

Location
Hualien, Taiwan

Customer Background
Si Wei Senior High School, founded in 1962, is one of Taiwan's most prestigious educational institutions in eastern Taiwan. With over 50 classes and 2,000 students, the school excels in academic and technical education, earning recognition from the Ministry of Education and parents alike. To meet the demands of the digital learning era, the school embarked on a digital transformation journey, supported by Taiwan's Forward-Looking Infrastructure Development Program 2.0.

Solutions

To address the network challenges, Zyxel Networks delivered a comprehensive and scalable solution tailored to the school's needs. At the core of the deployment was the WAX610D WiFi 6 access point, which combined advanced technologies such as OFDMA and MU-MIMO to provide ultra-fast speeds of up to 2975 Mbps. WAX610D features dual-optimized antennas, ensuring stable and consistent coverage across the campus, whether installed on walls or ceilings. This setup guaranteed uninterrupted connectivity, empowering students and teachers to engage in digital learning seamlessly.

In addition, the XGS4600-32F L3 aggregation fiber switch with 10GbE uplink capability was deployed to handle bandwidth-intensive applications and ensure stable network performance. To complement this, the GS1900-24HPv2 smart managed PoE switch provided energy-efficient Gigabit connections with support for advanced features like IPv6, enabling the school to achieve the perfect balance between performance and cost-effectiveness. Furthermore, the Nebula cloud networking management platform simplified network administration by enabling online troubleshooting and real-time support. This eliminated the need for extensive IT resources, allowing the school to focus on enhancing its digital learning environment.

Results

Zyxel Networks' solutions addressed the school's bandwidth, performance, and management challenges effectively. Students and teachers now enjoy uninterrupted connectivity across the campus. By combining cutting-edge hardware with intuitive cloud management, the solution laid a strong foundation for the school's digital transformation, fostering a robust and future-ready learning environment.

- Robust and stable network infrastructure enables seamless digital transformation
- High-speed connectivity and reliable wireless coverage for uninterrupted learning
- Cost-effective solution ensures consistent performance within budget constraints
- Nebula cloud solution provides direct setup support, eliminating phone call hassles

Product List

- WAX610D WiFi 6 Access Point

- XGS4600-32F L3 Aggregation Fiber Switch
- GS1900-24HPv2 Smart Managed PoE Switch

- ATP700 Firewall