

Smart Educational Institution

Optimizing Network Connectivity and Management at Seoul's Educational Institution

Customer at a glance



Customer Name

Smart Educational Institution



Industry

Education



Location

Seoul, Korea



Customer Background

The smart educational institution in Seoul has branches in two to three areas, each operating with two to three buildings. In each building, 400 to 500 students simultaneously connect to the wireless network for online learning, while instructors and staff rely on it as they move across classrooms for teaching and student management.

Summary

The smart educational institution in Seoul needed to improve wireless performance during high traffic volume when students simultaneously used data-intensive applications and accessed online courses. They sought secure networks and efficient management, choosing Zyxel's USG FLEX 700 firewall to control website and application access, preventing access to irrelevant content. They also created VLANs to separate networks based on purpose and user. Installing an access point in narrow or shaded spaces can result in excessive costs, while excluding them may lead to weak signals. To accommodate a high number of students in confined spaces, Zyxel's WAX650S 802.11ax APs were installed in main areas, while budget-friendly APs were deployed in narrower spaces. This approach optimized the wireless network while effectively managing costs. The APs feature load balancing and quality of service (QoS) for high-speed, uninterrupted connectivity. Additionally, the entire network could be centrally managed and remotely controlled, facilitating easy network management and quick problem-solving in the event of network issues.

Challenges

- Enhance WiFi performance while addressing the issues of wireless network overlapping and shadow areas
- Optimize network management by segregating student and teaching staff networks and create a secure online learning environment
- Simplify network management in the absence of a network administrator

Benefits

- Efficient student network management and a high level of cybersecurity
- Smooth and uninterrupted learning experiences for hundreds of students, even when they are using data-intensive applications simultaneously
- Smart network management simplifies equipment monitoring and troubleshooting

Products used

- USG FLEX 700/USG310 Firewall
- GS1920-8HP/24HP Smart Managed PoE Switch
- WAX650S/WAX610D 802.11ax Access Point
- WAC6502D-S/WAC6303D-S 802.11ac Access Point