Securing Financial Operations with a Smart, Zero Trust Cloud Network

Overview

Headquartered on Eulji-ro in Seoul, this leading credit card company operates from a 25-story building with approximately 2,500 employees. To meet strict financial regulations while handling massive data traffic, the organization required a secure, high-performance network. Zyxel Networks' Nebula cloud networking solution, featuring enhanced IEEE 802.1X authentication and Zero Trust architecture, delivers secure and scalable network access across all floors. Centralized cloud management strengthens security, simplifies operations, and ensures regulatory compliance, enabling reliable day-to-day operations while protecting sensitive financial data.

Challenges

The credit card company was operating on an aging network infrastructure that did not meet modern security requirements and required a full replacement. Its existing security solution could block web services but lacked application-level access control, limiting security visibility and management. As a financial institution subject to strict regulations, employees were required to use IEEE 802.1X-based authentication to ensure secure network access, while authentication logs and site access records had to be retained for at least one year to meet compliance requirements. In addition, the IT team needed a centralized, web-based management platform to monitor network devices, user accounts, endpoints, and system logs in one place. However, relying on a dedicated physical authentication server led to high upfront costs of approximately 20 million won, ongoing maintenance overhead, and limited scalability as user demand grew.

Solutions

A high-performance network was deployed to support the building's 25 floors and 2,500 employees. The XGS2220-30 switch served as the core backbone and connected GS1920-24HP PoE switches and WAX610D WiFi 6 access points throughout the building. This network ensured fast, stable data transmission across all floors while providing the security and reliability required for demanding financial network environments.

Customer
Credit card company

Industry
Finance

Location
Seoul, South Korea

Partner
LGU+

Customer Background
Headquartered in Eulji-ro, Seoul, this leading credit card company operates from a 25-story headquarters building that houses around 2,500 employees. The financial institution was required to comply with stringent national security regulations, including the Personal Information Protection Act and the Electronic Financial Transactions Act. Its operations demand a highly secure network environment that can handle massive data traffic while maintaining strict regulatory compliance.

The deployment utilized the USG FLEX 700H firewall, which integrated security features including IPS, anti-malware, and web filtering to improve productivity and reduce security risks. Beyond simple URL-based blocking, it leveraged Deep Packet Inspection (DPI) to analyze traffic and control applications. This blocked unnecessary bandwidth-heavy streaming services that impacted productivity, high-risk P2P file-sharing applications, and access attempts to harmful or malicious websites.

Nebula Cloud Authentication Services (NCAS) enabled cloud-based IEEE 802.1X authentication to centrally manage wireless access and strengthen access control. This eliminated the need for costly physical servers, removed scalability limits, and ensured a seamless onboarding process. It provided stronger security than traditional WPA-PSK, and with the Nebula Pro license, the system supported unlimited user registration, allowing easy growth without additional infrastructure or operational complexity. Regulatory compliance was a critical requirement. Using the Nebula cloud platform, authentication records and network traffic logs were automatically stored in the cloud for one year. This built-in log retention ensured the company could meet financial audit and regulatory requirements while providing essential data for root cause analysis and post-incident security audits.

Results

The company transitioned its aging infrastructure to a modern, cloud-based environment, ensuring strong financial-sector security while improving operational efficiency. With Nebula's centralized cloud platform, IT staff gained real-time visibility into network status, security events, and authentication activities, monitoring the network remotely and responding quickly via email and mobile notifications. By adopting centralized cloud management and Zero Trust architecture, the organization strengthened cybersecurity, ensured compliance, reduced operational overhead, and enabled real-time control across its multi-story headquarters.

- Fast, stable connectivity supporting 2,500 employees across a 25-story building
- Enhanced network security and productivity by blocking cyber threats and non-work applications
- Lower costs and greater scalability through cloud-based authentication with unlimited user registration, while meeting financial security standards
- Centralized cloud management via Nebula for real-time monitoring and rapid issue resolution

Product List

- WAX610D WiFi 6 Access Point

- XGS2220-30 L3 Access Switch
- GS1920-24HP Smart Managed PoE Switch

- USG FLEX 700H Firewall

- Nebula Pro Pack License