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Success Story

Taiwan Machine Manufacturer Upgrades Network with Zyxel Nebula

INDUSTRY — SMB

CUSTOMER — Avex-SG Technology Inc.

REGION — Taiwan

SOLUTIONS — Zyxel Nebula Solution

Overview

Challenges

- Modernize company network infrastructure for the new facility
- Increase the operational efficiency with flexible and scalable infrastructure
- Reduce costs, simplify management, and offer greater flexibility through remote access for IT staff

Benefits

- The "zero touch deployment" feature allows fast and easy installation and network deployment for new facility
- Real-time monitoring and centralized management
- Enhanced network security
- The new network is scalable and future-proof

Solutions

Zyxel Nebula Cloud Solution
- 802.11ac Nebula Cloud Managed Access Point
- 24-port Gigabit Nebula Cloud Managed PoE Switch
- Nebula Cloud Managed Security Gateway

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Background

Avex-SG Technology is a leading designer and manufacturer of industrial automation and control based in Taichung, Taiwan. The company specializes in switchboards for the industrial machinery, electronics, and semiconductor industries. To stay competitive and provide higher-quality services to the customers, Avex-SG Technology has partnered with international institutions to develop world-class equipment, and the company maintains a team that specializes in international standards to meet the demands of customers in Taiwan and overseas.

Challenges

Like many leading manufacturers, most of the equipment in the Avex-SG Technology Taichung facility requires a robust and stable network connectivity. To maintain a leading position within its market, the company wanted to ensure network communication remains "always-on" for business operations both inside and outside the facility. In addition, the company wished to improve operational efficiency and resolve resource allocation

issues while increasing the speed of response to sudden incidents with minimal IT staff. Also, the new network would have to meet the increasing demand for network connectivity in response to future trends. These challenges, along with the establishment of a new manufacturing facility, made it necessary for the company update to a new network solution.

Solutions and Benefits

Avex-SG Technology chose the Nebula cloud network management solution from Zyxel. The solution covers all critical network components, including as gateways, switches, and access points. With these, the company gained the resources to manage its IT services and while minimizing the time needed for network deployment and installation in the new facility.

Nebula Control Center
Another significant advantage to using the Zyxel Nebula cloud solution is that users can manage and monitor their entire network in a secure cloud platform – the Nebula Control Center (NCC). With a few clicks, devices can be set up, monitored, and managed. Firmware can be updated for large number of devices in few simple steps through NCC, successfully reducing the time of network maintenance for businesses. In addition, IT administrators can manage and monitor their networks remotely through a smartphone or tablet, even if they are not on-site, making it a perfect solution for customers that do not have full-time IT staff.

Faced with a growing number of information security

threats, the cloud architecture of Nebula provides multiple backup systems to ensure the stable operation of the network environment. The Nebula cloud managed security gateway is not only equipped with a next-gen firewall, it also features IDP and Application Patrol to strengthen overall protections against intrusions from unknown backdoors. The VPN function enables safe connections and resource sharing between the new Avex-SG Technology facility and the company headquarters.

Also, the Nebula provides excellent scalability. New devices can be added as required when Avex-SG Technology establishes new facilities in the future, and the devices will be under the centralized management of NCC. Nebula successfully satisfied Avex-SG Technology's demand for network deployment for its new facility, as well as for safe use and easy management of its network. It also offers persuasive evidence of Zyxel's ability to provide comprehensive network solutions. The Nebula cloud solution offered everything the company needed: centralized management, quick deployment, and real-time monitoring.

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Products Used

NAP203 • 802.11ac Dual-Optimized Antenna 3x3 Nebula Cloud Managed Access Point

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac access point
- Supports combined data rates of up to 1.75 Gbps
- Dual-optimized antenna allows pattern optimization adapting to wall- or ceiling-mount installations
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client
- Steering Ultra-slim ID design at 32 mm height blends into modern interior decorations

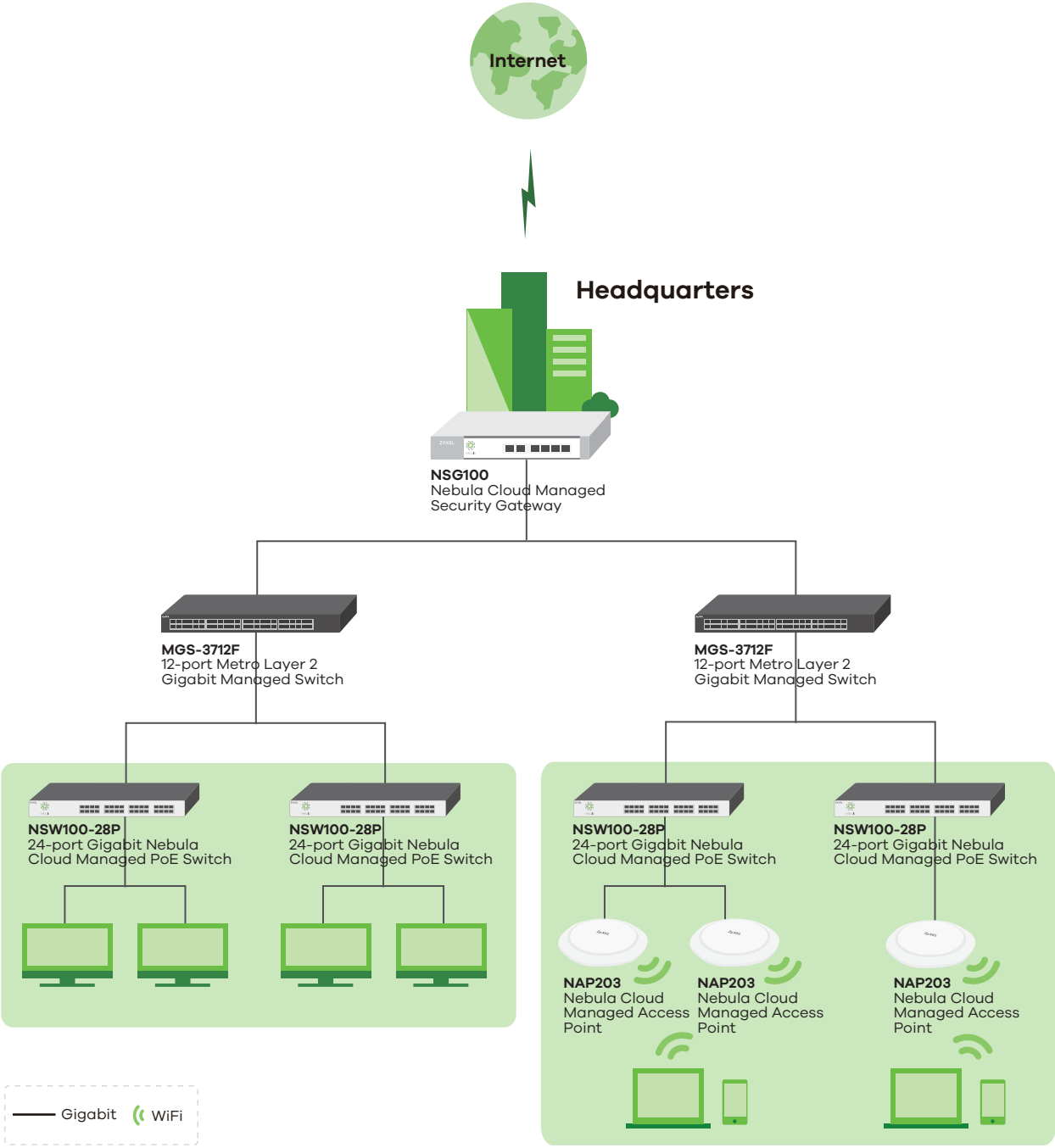### NSW100-28P • 24-port Gigabit Nebula Cloud Managed PoE Switch

- Essential L2 features with user-friendly ACL and VLAN configuration
- Optimized for quality voice and video traffic with high 375 watt power budget PoE technology
- Support Port Mirroring for network traffic monitoring
- Support DHCP Server Guard and IGMP snooping
- RADIUS, static MAC forwarding and 802.1X authentication

NSG100 • Nebula Cloud Managed Security Gateway
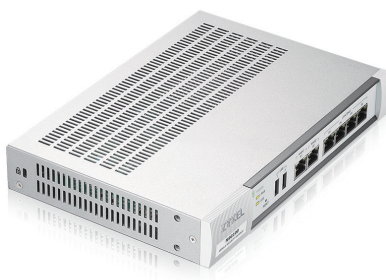
- Complete networking, security and application control over the cloud
- Zero-touch site-to-site VPN
- Secure networks with Next-Gen Firewall, IDP and Application Patrol
- Static route and dynamic DNS support
- Identity-based security policies and application management

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Diagram

Internet

Headquarters

NSG100
Nebula Cloud Managed
Security Gateway

MGS-3712F
12-port Metro Layer 2
Gigabit Managed Switch

MGS-3712F
12-port Metro Layer 2
Gigabit Managed Switch

NSW100-28P
24-port Gigabit Nebula
Cloud Managed PoE Switch

NSW100-28P
24-port Gigabit Nebula
Cloud Managed PoE Switch

NSW100-28P
24-port Gigabit Nebula
Cloud Managed PoE Switch

NSW100-28P
24-port Gigabit Nebula
Cloud Managed PoE Switch

NAP203
Nebula Cloud
Managed Access
Point

NAP203
Nebula Cloud
Managed Access
Point

NAP203
Nebula Cloud
Managed Access
Point

—— Gigabit   ((WiFi

About Zyxel Communications

Focused on innovation and customer-centricity, Zyxel Communications has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users. Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play. Zyxel, Your Networking Ally.