



Success Story

Zyxel Nebula Solution Helps Italian Logistics Company Ensure Steady Wireless and Wired Connectivity Throughout Premises



INDUSTRY

Logistics



CUSTOMER

Liccardi
Express
Courier



COUNTRY

Italy



SOLUTION

Zyxel
Nebula
Solution

Overview

Challenges

- Provide high-quality wireless connectivity to the office, warehouse, and guest network
- Needed a high-speed wired network that supports cloud network and IP telephony for the headquarter and branches
- Separate and secure networks compliant with GDPR and support advanced security and fail-over technologies
- Allow access to package label printers and automatic scales to cloud management system at a third party supplier

Results

- A steady and reliable wireless network across the company's premises to help employees work effortlessly
- A robust wired network with cloud-support for headquarters and branches
- GDPR compliance across the network ensures peace of mind for the company management from any privacy-related issues
- Secure connectivity with third-party networks for seamless cross-utilization of devices like package label printers and automatic scales

Solution

- Zyxel Nebula Solution

"We have chosen Zyxel Networks who is our unique technological partner and thank them to meet various requirements from our customer Liccardi Express Courier in telephony, Internet, networking, and IT security."

Dario de Vincentiis
CEO, Extratel Srl

Background

Liccardi Express Courier is a modern organization that is always in step with the times, flexible, and capable of following a modernization path. With a firm idea of transformation and evolution of transport, while retaining its original soul, it combines technological innovation and personalization of services, always caring for its customers' needs. Thanks to its fleet of vehicles, Liccardi

Express Courier can cover the entire country within 24 to 48 hours and count on an always up-to-date staff, which uses modern and cutting-edge technologies to ensure safe and traceable deliveries. To continue offering such a high-quality service, the company needed a strong wired and wireless network.

Challenges

The company's major challenge was to get high-quality Wi-Fi coverage in the central warehouse and the areas dedicated to preparing and storing shipments, given the use of handheld package markers and scales. This wireless network had to be exclusively for the use of these devices.

Liccardi Express Courier also needed to make sure the whole network system including the exchange of XML streams between its cloud management system and other external partners was secure enough and GDPR-compliant.

Besides these, the company's new system was required to support its new expanded telephone lines with a 100-channel GNR stream and replace its classic telephone switchboard with a complete and versatile solution in the cloud. It had to be able to connect the six branches located in the country.

Liccardi Express Courier has chosen to rely on a single technological partner for telephony, Internet, networking, and IT security.

Customer's requirements

Networking needs

- NFiber cabling between warehouse and office floor
- Gigabit network
- Elimination of various intermediate switches
- Switching from the classic telephone switchboard to a cloud and virtual solution to facilitate smart working, conferences, and connecting branches
- Management of IP phones powered by POE switches

Security needs

- Dedicated VLAN for the various networks (Phones, Offices, Warehouse Wi-Fi, Guest Wi-Fi, Personal Wi-Fi)
- Advanced security and GDPR compliance
- Line balancing rules and WAN fail-over management

Wireless needs

- Creation and management of the general warehouse/ sorting network
- Creation and management of a network of offices dedicated to notebooks and management
- Creation and management of guest network dedicated to personal and guest mobile phones

Other needs

- Allow access to package label printers and automatic scales through the cloud management system to a third party supplier
- To allow the secure exchange of XML flows with other partners in the area

Solutions and Benefits

Liccardi Express Courier worked with Extratel S.r.l. for this project. Extratel was founded in 2004 to provide communication solutions to other companies that looked to leverage the continually evolving technology. It offers a wide range of services integrating Internet connectivity, networking, IT security, and network systems, delivering a service of technical assistance to meet the ever-rising market demands.

For this project, the customer chose **WAC6103D-I 802.11ac Dual-Radio Dual-Optimized Antenna 3x3 Access Points** because of their Dual Optimized Antenna and superior performance for ceiling and wall installation. Wireless functions such as Dynamic Channel Selection (DCS), Load Balancing, and Smart Client Steering provide more stable connections. These are incredibly reliable and fast so that Zyxel Nebula APs can offer users a seamless wireless experience. **NAP203 802.11ac Dual-Radio, Dual-Optimized Antenna 3x3 Nebula Cloud Managed Access Points** and **NAP102 802.11ac Dual-Radio Nebula Cloud Managed Access Points** were also part of this project.

NebulaFlex Pro made access points available with tri-mode management: autonomous Access Point, Access Point managed by the WLAN controller, and Access Point managed by the Nebula cloud. Each Nebula Access Point is managed in the cloud thanks to the intuitive interface that allows administrators to control all APs under one panel quickly. Two authentication modes were enabled - via cloud access of the devices to the warehouse network and captive portal for the guest network.

The **GS1920-8HPv2/24HPv2 8/24-port GbE Smart Managed PoE Switches** guarantee greater agility and more effective traffic management for today's converged applications.

The company chose the **ZyWALL ATP200 Firewall** to identify zero-day threats. This solution monitors the network, records its findings in the database, and provides the ATP with a daily update about threats.

The solution, enhanced by cloud intelligence for security, not only supports Zyxel security services such as Web security and Malware Blocker but also features like Sandboxing, an isolated cloud environment that identifies new types of malware. The Firewall can also leverage the power of SecuReporter, a cloud-based analytics and report service with collection and correlation functions. Thanks to UTM services of the Gold Security Pack, the ATP series guarantees compliance with GDPR.

The VMG8924, VMG5313, and VMG1312 routers were used for high-speed connectivity. VMG8924-B offers high-speed VDSL Internet access to meet the needs of the global service market. With integrated 3x3 802.11ac WLAN, which overcomes troublesome cabling, the VMG8924-B series provides a top-quality Wi-Fi user experience and coverage. The Zyxel VMG5313-B series provides automatic detection between VDSL2 and ADSL2+ for high-speed Internet access. Also, G.vector supports allow you to increase bitrates and coverage to compete with other broadband technologies without altering the infrastructure. Simultaneously, the VMG1312, an advanced VDSL2 gateway, provides automatic detection between VDSL2 and ADSL2+ for high-speed Internet access.

The first distribution featured six 5/8 port intermediate switches from different manufacturers. All of them were unified into two pivot points. One was to the main rack with three different connections to ensure as much continuous up-time as possible. The second point was on the office floor, where there is another rack with one switch serving the executive offices, administration, and customer service call centers. It has created different networks for staff and guests, providing coverage to all areas. Furthermore, the architecture guarantees the protection of data and users according to the requirements of the GDPR and provides a safe and smart working environment for employees.

Products Used

WAC6103D-I • 802.11ac Dual-Radio Dual-Optimized Antenna 3x3 Access Point



- Dual-optimized antenna allows pattern optimization adapting to wall- or ceiling-mounted installation
- 3x3 802.11ac supports combined data rates of up to 1.75 Gbps
- NebulaFlex Pro allows users to switch among standalone, on-premises controller managed or intuitive Nebula cloud-managed modes as needed
- Dynamic Channel Selection, Load Balancing, and Smart Client Steering ensure optimal wireless experience
- Stylish, ultra-slim ID design as the 32 mm height blends perfectly into modern interior decorations

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



- Cloud-managed dual-radio 3x3 MIMO 802.11ac AP
- 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, 32-mm-thick ID design blends into any modern decor

NAP102 • 802.11ac Dual-Radio Nebula Cloud Managed Access Point



- Cloud-managed, dual-radio 2x2 MIMO 802.11ac access point
- Supports combined data rates of up to 1.2 Gbps
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic channel selection, load balancing, and smart client steering

Products Used

GS1920-8HPv2/24HPv2 • 8/24-port GbE Smart Managed PoE Switch



- NebulaFlex™ gives you the flexibility to switch between stand alone and our license-free Nebula cloud management
- Nebula cloud management allows easy deployment, real-time configurations, and effortless access to all your cloud devices anytime
- Using user-friendly web-based GUI to manage and set up the switch without learning complex CLI
- High PoE power budget 180W (8HPv2) and 375W (24HPv2)
- Smart fan and fanless designs offer silent operations in your office
- Check real-time status intuitively by cloud and PoE LED indicators

ZyWALL ATP200 • ATP Firewall



- Machine learning threat intelligence with global sync
- Sandboxing defeats unknown threats
- Hybrid scanning leveling up malware blocking
- High assurance multi-layered protection
- Reporting and analytics on cloud and device
- 1-Year full functional license services

About Zyxel Networks

Focused on innovation and customer-centricity, Zyxel has been connecting people to the Internet for over 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for business and home users. We're 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.

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