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Success Story

Efficiency is King as Zyxel Helps Russian Factory Rebuild its WiFi Network

INDUSTRY — Manufacturing

CUSTOMER — Solombala Machine-Building Plant

COUNTRY — Russia

SOLUTION — Zyxel Nebula Solution

Overview

Challenges

- Improve spotty WiFi network covering 2,000 square meters of floor space
- Satisfy client's need for easily manageable network
- Overcome potential signal interference from thick walls

Solution

- Zyxel Nebula Solution

Benefits

- Seamless signal and connectivity for staff, clients, and visitors
- More reliable wireless coverage achieved with fewer access points
- Centralized, user-friendly WiFi network control

"The new administrative building spans three floors. We've now got excellent WiFi coverage across all 2,000 square meters using only four access points, despite our many separate rooms and thick walls. Plus, the neighboring service building is connected via a separate access point. I'd highly recommend to my colleagues that they look into Zyxel Nebula."

Artem Nosnikov
IT director, Solombala Machine-Building Plant

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Background

The Solombala Machine-Building Plant, located in northwest Russia's Arkhangelsk city, has been operating for 85 years. Owned by the international Palfinger group, the factory has nearly 200 employees. Take a tour of the factory floor and you'll see highly skilled workers busily making parts for heavy-duty machinery like cranes, platforms, and forklifts.

Aside from those who perform the machining on the factory floor, many work next door in the new administrative building, which houses the plant's management staff. There's a service building, too, which contains offices plus a laboratory, quality control staff, and a kitchen area.

Until recently, there were about a hundred PCs connected around the facility, with 50 or so mobile devices permanently connected. In addition, the site is periodically visited by subcontractors, clients, and parent company employees, increasing the number of connected mobile devices by 50%.

Challenges

From 2010 until recently, the plant relied on a network of 20 access points. They had long ago become outdated, particularly as the Solombala factory prides itself on being on the cutting edge.

A revamp was in order.

"The existing access points had already ceased providing reliable connections," said Artem Nosnikov, the plant's IT director. "They rebooted frequently and were unstable. Furthermore, with the plant's management moving to the new administrative building, there was no longer a need for wireless in the factory itself."

Aside from the obvious demand of reliable, high-performance equipment, the plant's managers had a key priority right from the beginning of the planning process: ease of management. That meant access anywhere and no overly complex interfaces.

"We were already familiar with Zyxel and its solutions, which has proven itself with our partners," Artem said. "After learning about Zyxel's Nebula cloud management platform, we immediately asked to test out a handful of Nebula devices. We were impressed that the components could be so simply managed via the internet and that the access point supported the 5 GHz band."

Solutions and Benefits

The new Zyxel network solely comprised **NAP102 access points** and didn't disappoint when it came to efficiency, as can be demonstrated with two key numbers: **five** and **one**.

First, in stark contrast to the 20 access points supporting the previous network, **only five Zyxel APs** were required thanks to its design, which includes a 2x2 MIMO antenna and boasts ultra-fast speeds of up to 1.2 Gbps. Four APs were deployed to broadcast wireless to the three-floor administration building, with the other used for the service building.

Second, it took Zyxel's local partners only **one hour** to install the five access points. Provisioning is just as simple—the AP auto-configures itself after installation then automatically connects to the Nebula cloud to join the network. This also means that staff can manage the network anytime, anywhere and from any browser via the user-friendly Nebula Control Center.

We'll let the plant's chief exec, Maxim Evstigneev, sum up the project: "To put it succinctly: everything works as expected—thanks to Zyxel for the excellent solution!"
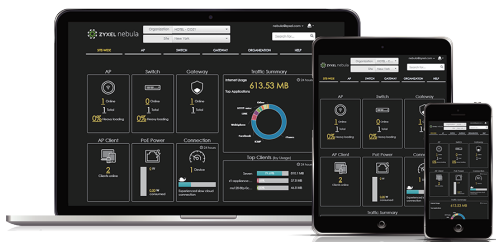
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Products Used

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

Nebula Control Center (NCC)

- Responsive web design and intuitive user interface
- Multi-tenant and multi-site view
- Role-based administration privileges
- Real-time as well as historical monitoring and reporting
- Site-based auto and smart configuring tools
- Misconfiguration protection to prevent NCC disconnections
- Rich site-wide management tools (dashboard, map and floor plans, and topology)

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.