



## Success Story

Stocktaking Has Never Been Smoother for This Russian Auto Chain



INDUSTRY

Avtorus



CUSTOMER

Retail



COUNTRY

Russia



SOLUTIONS

Zykel  
wireless  
solution

## Overview

### Challenges

- Outfit over a dozen large warehouses with WiFi access
- Ensure high fault tolerance so constant inventory management is never interrupted

### Benefits

- Seamless, problem-free deployment and installation
- Dropout problems of previous infrastructure eliminated
- Reasonably priced

### Solution

- Zykel Wireless Solution

"We didn't run into a single problem in the implementation process. After that, any issues with the operation of the equipment were quickly resolved with a firmware upgrade. We recommend Zykel to our colleagues without hesitation."

Pavel Makedonov  
System Administrator, Avtorus

## Background

Avtorus is an undisputed leader of Russia's aftermarket auto care sector. Operating eight wholesale branches and 14 major shopping and service centers, each with its own warehouse, the chain sells spare parts, tires, batteries, and other accessories from more than 500 brands. Avtorus also maintains a central warehouse and employs some 2,000 people nationwide.

The company's facilities had long ago been equipped with WiFi infrastructure supplied by a globally known manufacturer. However, staff weren't happy: signals were consistent only in their inconsistency and managing the networks was highly time consuming.

And it got even worse.

Critical failures occurred, causing Avtorus to lose access to its license database, which in turn jeopardized the launch of a planned automated warehouse stocktaking system.

Needless to say, Avtorus was on the hunt for new WiFi

## Challenges

Thus, the selection process began, as described by Avtorus system administrator Pavel Makedonov, who understood the chain's needs better than anybody.

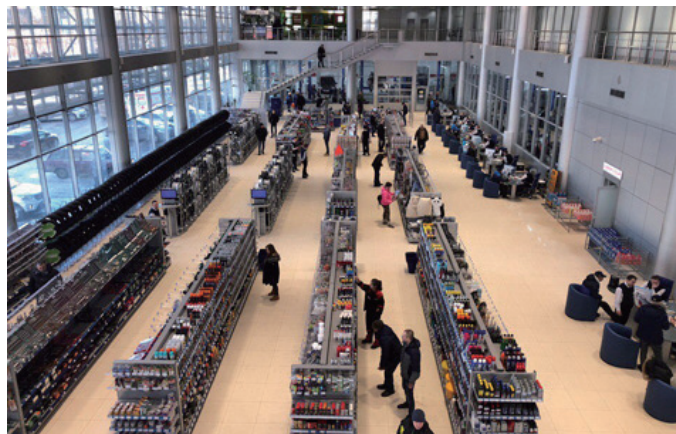
"We needed switches, controllers, and access points—a lot of them," he said. "We devised three criteria that the supplier would need to satisfy. The first was fault tolerance. Stocktaking is a constant process so a critical failure would be unacceptable.

"Second, we handle tremendous volume and have warehouses scattered all over Moscow and the region, plus the buildings themselves all have different architectural styles, so the solution needed to be easy to configure and

## Solutions and Benefits

Due to the sheer size and number of the warehouses, the entire duration of the project—from the beginning of planning to the deployment of the final access point—took about a year and the effort of six specialists.

When it was all said and done, Avtorus' warehouses had



infrastructure to support and streamline the computerized stocktaking system, which it intended to roll out at the warehouses. This would involve equipping each location with wireless portable data collection terminals that could be used to scan the barcodes of incoming products.

Having a comprehensive electronic database of the every item in stock would a game-changer for Avtorus's efficiency. But the company wasn't there yet—such a system would work only once reliable WiFi was ensured.

administer. Third was simply that it needed to be reasonably priced."

Zykel's wireless networking solution immediately jumped out at Pavel and his colleagues while they were examining various vendors' solutions.

"The Zykel samples we tested didn't present any problems in management. Furthermore, the interface was convenient and everything was well documented. The equipment passed several stress tests and we had no questions or concerns from a technical point of view," Pavel said, adding: "It was also good that the price turned out to be quite acceptable."

been transformed into robustly connected, highly efficient storage centers via 400 access points (mostly the NWA5121-NI), 115 switches (mostly the GS1900-24HP), and 17 wireless LAN controllers (mostly the NXC2500). Every piece of merchandise is recorded as it enters a facility and is tracked while it's stored and all the way

# ZYXEL

until it exits a retail location in the hands of a happy customer.

Avtorus IT head Konstantin Fedotov knew early on that the work was on course for a smooth conclusion. "About one month in, the pieces started falling into place and we knew that we hadn't gone with Zyxel in vain," he said. "Our goal was being fully achieved, with each component working exceptionally."

And the story doesn't end there. When Zyxel forms a

relationship with a company, they both continue growing together for years to come.

"Going forward, Avtorus intends to strengthen its position in the market," Konstantin said. "New shopping and service centers as well as dealerships are in the works, and we'll need to expand the wireless infrastructure of our locations accordingly to keep up. Avtorus will constantly grow and scale up together with Zyxel."

## Products Used

### GS1900 Series • 24/48-Port Gigabit Smart Managed Switch



- Easy browser-based switch management with quick and easy setup wizard
- Advanced network error prevention features including loop protection, dual images, storm control, DoS, and SSL
- Green Ethernet IEEE 802.3az support and intelligent Zyxel green features

### XGS-4728F • L3 Managed Stackable Gigabit Ethernet Switch



- IPv4/IPv6 routing
- L3 advanced routing protocols, OSPF, DVMRP, VRRP, and ECMP
- Optional modular 10 Gigabit Ethernet support
- Multilayer-aware (L2/L3/L4) ACL for security protection and traffic optimization
- Guest VLAN
- IGMP Snooping v1, v2, v3, and MVR
- sFlow and CPU protection
- RSTP, MSTP, MRSTP, and VRRP

## NXC2500 • Wireless LAN Controller



- Auto provisioning and centralized management of up to 64\* APs
- ZyXel Wireless Optimizer for easily planning, deployment, and maintenance
- Advanced ZyMesh technology for simplified AP deployment and WLAN extension
- Enhanced RF management with auto healing
- Flexible traffic forwarding with tunnel and distributed modes
- Comprehensive guest network management and granular access control

\*Management of 64 APs is supported with firmware version V4.10 and above

## NXC 5500 • Wireless LAN Controller



- Centralized WLAN management and auto provisioning
- Manages up to 1,024 APs with granular access control
- ZyMesh simplifies complex, inconvenient cable-heavy WiFi deployments
- Comprehensive features for WLAN performance optimization and always-on WiFi connectivity
- Wireless LAN performance optimization via dynamic channel selection and load balancing
- QR code-based guest authentication
- ZyXel One Network supported

## NWA5121-NI • 802.11n Unified Access Point



- Ceiling- and wall-mountable design with optimized RF performance
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- Simple, speedy deployment with APFlex™ and ZyXel One Network utilities

### 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.

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