



## Success Story

### ZyXEL Network Solution Helps Czech Fertility Clinic REPROFIT Keep Pace with Growth

**"When selecting the active element for a complete renewal of our infrastructure, we set out several criteria that we expected from them. Devices from ZyXEL met all our criteria, and thus we were able to create a safe, efficient and stable infrastructure."**

**Mr. Tomáš Krcál**

Financial Director, REPROFIT International Clinic

#### Overview

##### Customer Name

REPROFIT International

##### Customer Industry

Health Care

##### Challenges

- Upgrade clinic's outdated network
- Provide stable Wi-Fi for clinic's employees and customers
- Create secure, high-performance connectivity between primary and satellite clinics

##### Solution

- 24-port GbE Smart Managed Switch
- Unified Security Gateway
- Wireless LAN Controller
- 802.11 b/g/n Unified Access Point

##### Benefits

- Secure and stable infrastructure
- Longer Wi-Fi reach with optimal comfort for personnel and visitors

#### Challenges

It was necessary to replace the current network, which was slow, unstable and unable to satisfy the needs of a modern day clinic. The new solution had to improve connection stability and reliability at the branch office and the accessibility of the Wi-Fi network for working personnel and visitors. In the event of a connection failure, a technology for the automatic service takeover by a back-up line was utilized. A failover WAN was implemented in order to maintain a connection to branches.

#### Background

REPROFIT International was founded in 2006 as the first Czech institution featuring a specialized team for infertility treatments using donated ovule. The company's clinics utilize modern, state-of-the-art methods. The central site is located in Brno, while a branch office operates in Olomouc.

In 2012 REPROFIT International performed the highest number of assisted reproductive procedures in the Czech Republic with almost 2,800 treatment cycles. The second-highest number performed by any other clinic per year, as recorded by the National Register of Assisted Reproduction, ranges around 1,800 cycles.

Compared to available results of infertility treatment success in Europe, REPROFIT's clinics stand above the average, and rank among the leading European facilities of its kind.

## Solutions and Benefits

The implementation took place at two locations, the Brno headquarters and in the Olomouc branch office. The network is composed of five performing GS1910 series switches. Servers are connected using dynamic aggregate lines, which balance the load of the network, thus increasing its availability and permeability.

ZyWALL USG 200 and ZyWALL USG 50 firewalls fulfill the role of security gateways with an active IDP (Intrusion Detection and Prevention), which helps to detect and block dangerous activity. Firewalls terminate two independent Internet circuits operating on different cable and wireless connection paths. These circuits feature an automatic backup failover function for the Wi-Fi network and VPN, as well as reserved and encoded connection to branches over the Internet.

The Olomouc branch office uses two other independent Wi-Fi circuits. Wi-Fi is controlled by the NXC2500 wireless LAN controller, which manages 7 NWA5121-NI access points designed as smoke detector. These access points are installed in a soffit, with no impact on the building's appearance, which is partly historical and was successfully renovated.

Another NWA5121-NI access point was installed in the Olomouc branch office, where it is connected to the central controller via VPN. The Wi-Fi signal is available in several SSIDs, i.e. more independent networks within one signal with separate access rights for individual groups of users (clients/employees).

The principal benefit is the newly built, secure, better performing and stable infrastructure. This achievement elevated the permeability of the local network, and enhanced the stability and reach of the Wi-Fi network. This provided the required connection stability and accessibility between the Olomouc branch office and the Brno headquarters. Optimal Wi-Fi convenience both for working personnel and visitors at the clinic was also achieved.

"ZyXEL portfolio covers all areas required by the client. By implementing a comprehensive solution, we achieved a fast and efficient setup of the required technology." said Mr. Jindřich Beránek, registered agent of VYSCO Plus Ltd..

## Product Used



### GS1910 series 24-port GbE Smart Managed Switch

- Advanced Smart GbE L2 ACL switching features
- 48 Gbps non-blocking switch fabric
- Supports IPv6
- Fanless design



### NWA5121-NI 802.11 b/g/n Unified Access Point

- Ceiling and wall mountable
- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)



## NXC2500 Wireless LAN Controller

- Centralized management for up to 64\* APs
- ZyMesh mitigates complex, inconvenient cabling Wi-Fi deployments
- Client steering enhances efficiency of wireless spectrum utilization
- Auto healing maximizes Wi-Fi service availability
- Seamless integration with external AD, LDAP, RADIUS authentication
- Best investment protection with built-in RADIUS server

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



## USG 200 Unified Security Gateway

- Robust security without sacrificing performance
- Comprehensive support to IPv6
- Robust hybrid VPN (IPSec/SSL/2TP)
- Zero-configuration remote access with EASY VPN
- Supports L2TP VPN on mobile devices (iPhone and Android phones)
- ICSA firewall, IPSec certification
- Content filter stops malware and Web threats
- Powerful email security
- Non-stop Internet access with multiple WAN and 3G backups

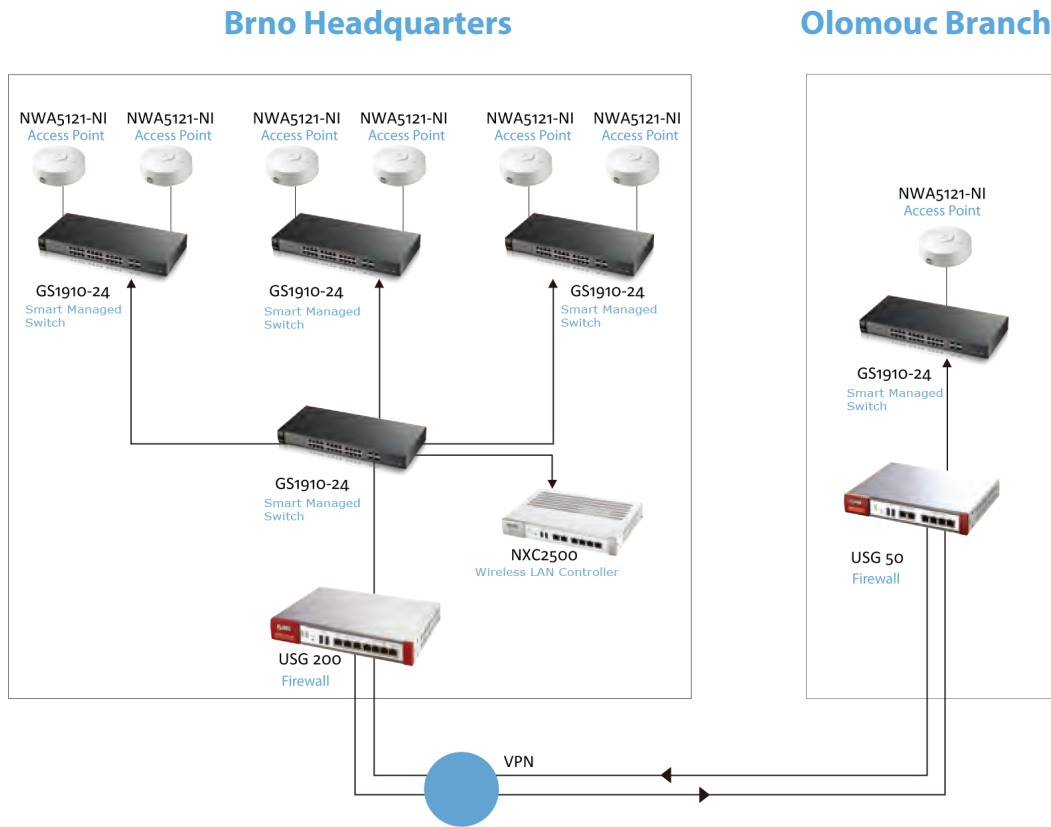


## USG 50 Unified Security Gateway

- Hybrid VPN
- Content Filter
- Endpoint Security Check
- User-Aware Policy Engine
- Bandwidth Management
- USB for support 3G dongle
- Windows 7 ready



## Diagram



### About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modem manufacturers, ZyXEL has gone through transformations in the fast-paced networking industry. Delivering cutting-edge communications innovations to more than 400,000 businesses and more than 100 million consumers throughout the world, today ZyXEL is one of the few companies in the world capable of offering complete networking solutions for Telcos, small to medium-sized businesses, and digital home users for a wide range of deployment scenarios. Telco solutions include Central Office Equipment, Customer Premise Equipment, Wired and Wireless Access Network Devices, and Carrier Switches. SMB and Enterprise solutions include Unified Security Gateways, LAN Switches, WLAN, and IP Telephony. Digital Home solutions include Network Connectivity Devices and Multimedia Solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

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