

Success Story

Trojský Vrch Uses ZyXEL Technology to Facilitate Internet Connection, Czech Republic

“Because VDSL technology was chosen and the DSLAM device was installed, we were able to finalize installation in a short time frame at minimal cost. It was not necessary to lead cables to every apartment separately, and we also benefit from significant financial savings on materials and labor. Consequently, we were able to transform these savings into lower service costs for end users.”

Roman Zubek
Pe3ny Company Engineer

Overview

Customer Name

Trojský Vrch, Czech Republic

Customer Industry

Residence

Challenges

- Provide high-speed data transfer on the existing telephone lines
- Distribute Internet to 800 apartments throughout the entire apartment complex
- Ensure Internet connection quality and stability regardless of the distance

Solutions

- VES1724-56, P-870HN-51b

Benefits

- Enjoy fast data transfer
- Ability to use IP TV and IP telephony

Challenges

Internet service of the Trojský Vrch apartment was provided by Pe3ny NET, the dominant service provider in Prague, and the challenge was to provide high-speed connection with IP telephony and IP TV applications to more than 800 apartments in six entranceways of the Trojský Vrch apartment complex. The task involved introducing a high-speed connection into the apartment complex itself, followed by subsequent distribution works leading to individual apartments.

Background

Being one of the largest apartment complexes in the Czech Republic, Trojský Vrch takes advantage of a brand new high-capacity Internet connection utilizing the cutting-edge technologies from ZyXEL. Almost a thousand apartments benefit from high-speed, reliable Internet connectivity, IP telephony and IP TV with almost zero aggregation rate.

Solutions

ZyXEL's VDSL in combination with IP DSLAM was evaluated as the most suitable solution. The ZyXEL VDSL solution not only enables faster data transfer over the existing telephone lines, but also simplifies the deployment process since it is not necessary to distribute new cables. Additionally, VDSL is applicable for IP TV in HD resolution, IP telephony and concurrent Internet connections.



The ZyXEL DSLAM VES1724-56 has been chosen as the access network device for its bandwidth and smart multicast video transfer consolidation features capable of establishing various virtual networks requiring video streams and unifying requests into one request. The VES1724-56 receives high-speed optic connectivity from the managed switch and then distributes the connectivity to the individual customer apartment by means of telephone lines. As the distance between IP DSLAM and VDSL is a key factor that significantly influences the connection quality, the VES1724-56 was deployed only ten meters away from the complex to ensure the stability and the maximum transfer speeds. In each household, a ZyXEL P-870HN-51b 802.11n Wireless VDSL2 4-port Gateway router was installed along with a high-speed 802.11n wireless network. Network status monitoring takes place in the newly developed supervision center. Since the network does not apply any filtering schemes, users are free to use any applications without hassle.

Benefits

The newly built infrastructure enables the customers to receive high-speed Internet, and enjoy IP TV and IP telephony. As VDSL technology in combination with IP DSLAM ZyXEL VES1724-56 is used for deploying the network throughout the apartment complex, residents can use the Internet connection easily: just connect the supplied VDSL modem to the telephone socket and it's done. Deployment of VDSL in combination with IP DSLAM equipment enables users make use of the existing infrastructure, in particular the already prevalent telephone cables.

Products Used



VES1724-56 24-port Temperature-Hardened VDSL2 Box DSLAM

- Complies with VDSL2 standards including ITU-T G.993.2, G.994.1 and G.997.1
- A 24-port DSLAM with downstream/upstream performance of up to 100/100 Mbps (30a profile)
- Comprehensive Triple-play functions
- Complete QoS for service differentiation
- VDSL2 bonding & G.INP
- ADSL2+ fallback & bonding

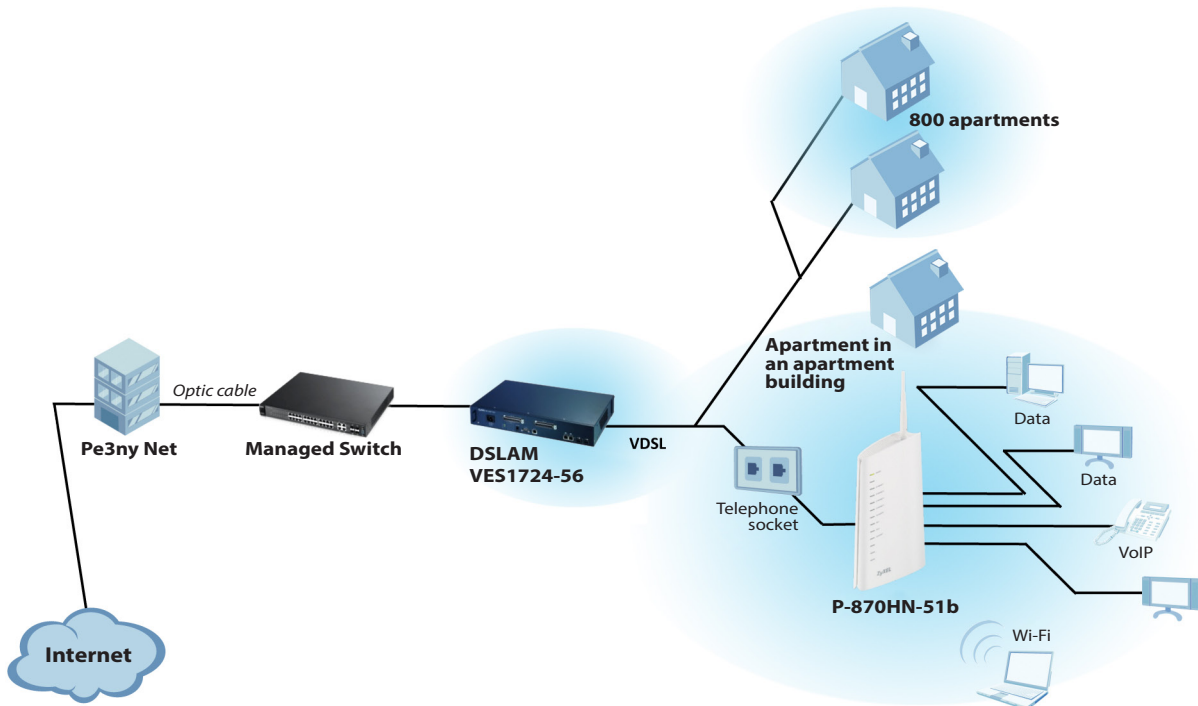


P-870HN-51b 802.11n Wireless VDSL2 4-port Gateway

- Dual-mode VDSL2/ADSL2+ functionality
- 802.11n technology for the extreme performance and coverage
- Quality of Service (QoS) support
- TR-069 remote management



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 undergone many transformations in the fast-paced networking industry. Today, ZyXEL is one of the few companies in the world capable of offering complete networking solutions of Telco, SME/Enterprise, and Digital Home for a wide range of deployment scenarios. Telco solutions include wired and wireless access network equipments, networking customer premises equipments, and Carrier Switches. SME and Enterprise solutions include Unified Security Gateway, LAN Switches and WLAN. Digital Home solutions include network connectivity devices and multimedia solutions.

The company has 3200 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 33 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

Copyright © 2013 ZyXEL Communications Corp. All rights reserved. ZyXEL, ZyXEL logo are registered trademarks of ZyXEL Communications Corp. All other brands, product names, or trademarks mentioned are the property of their respective owners. All specifications are subject to change without notice.