



Overview

Customer Name
Hankook Tire

Customer Industry
Chemical

Challenge

Upgrade the network in the hostel that is capable of handling large volumes of users seamlessly accessing to the Internet, the video surveillance system, access control, and separate subnets at the same time.

Solution

- ES-3148 managed layer 2+ switch
- ES-3124 layer 2+ managed switch
- XGS-4526 managed layer 3+ 10 Gigabit switch
- ZyWALL USG-1000
- NWA-3160 AP

Benefits

With the latest technology solution users can now easily access the online resources, and besides the system contributes the reliable operation of the hostel.



Success Story

Hankook Tire - Nonstop Wireless Access in the company's own hostel for operation purposes and residential use

Hankook Tire

Hankook Tire produces innovative and high quality radial tires for cars, jeeps, SUVs, lorries, busses and for the motor sport. 5% of the company's annual revenue is invested to R&D. It is present on the market in more than 180 countries and has over 14 000 employees worldwide. Hankook had chosen Hungary to place and build its factory in Europe. With an investment of 550 million Euros they succeeded to set up one of the most modern tire factory in a small Hungarian city, Rácalmás. The plant started to operate in June 2007 and produces over 17 000 tires per day approximately in 300 different sizes. The products manufactured in Rácalmás mostly serve the European market and easily meet the requirements and needs of leading automobile manufacturer companies. The Hungarian factory is a direct supplier of Volkswagen's and Hyundai's European plants for example. In the second half of 2011 the number of employees increased by 200 to 1900 and the total capacity enables the production of more than 10 million tires per year.

Challenge

The Hankook's apartment provides an excellent and comfortable accommodation for 500 workers of the factory. The fast growing company decided in 2010 to build a modern facility of a high standard, which does not only have a place to sleep, but sporting and recreational possibilities to the employees. The Hankook House - as they call it - is located 800m far from the factory, and even the factory's furthest point can be reached within 15 minutes by walking. The hostel area has a total of 11 439 m², and 254 apartment houses were created on 4 floors. Residents also have free internet access in the whole building.

At the start of the project, ZyXEL's partner, G4S Biztonságtechnikai Zrt. found USG200 to be an ideal solution for all the challenges, but during the first deployments it came up, that its capacity was not enough for the expected performance. The residents in the hostel have an average age between 20-30, and proved to be very active internet users. To ensure the maximum utilization, the system integrator decided to use USG 1000 instead of USG 200.





Solution

Hankook's management set basic criteria to have the best price-performance rate, so they insisted to maintain quality, while staying within the given budget limits. Thus how ZyXEL devices were chosen for this project, because they fully met the requirements. The switches were placed into two rack cabins on both sides of the building. The Layer 2+ switches control the video surveillance system which includes 116 cameras. These switches are also responsible for reliable Internet connection. The main network is based on XGS switches, and an USG 1000 controls the traffic through them. As a result of installation, ZyXEL devices ensure the smooth and secured internet & wifi connection in each room of the building. Moreover, altogether 6 subsystems were created, which are bounded to one IP network and run separately.

Technology and Products used

- 12 pcs ES-3148 managed layer 2+ switch
- 6 pcs ES-3124 layer 2+ managed switch
- 2 pcs XGS-4526 managed layer 3+ 10 Gigabit switch
- 1 pcs ZyWALL USG-1000
- 11 pcs NWA-3160 wireless dual band controller/AP

ES-3148 managed layer 2+ switch

- Multilayer-aware (L2/L3/L4) ACL for Security Protection and Traffic Optimization
- Policy-based QoS Optimizes Multi-service Quality
- VLAN Stacking (Q-in-Q) Support for Layer-2 VPN
- Remote Management via IEEE 802.3ah (OAM)
- IPTV Manipulated by MVR and IGMP Snooping v3
- Minimizes Channels Surfing Disturbance with Fast Leave
- ZyXEL iStacking™ Technology
- Backup Power System Support



NWA-3160

- 3-in-1 hybrid AP including AP controller mode, managed AP mode and stand-alone AP mode
- Centralized management for up to 24 WLAN Access Points
- Built with LSOH (Low Smoke Zero Halogen) material for plenum rating UL 2043 support
- Radius server
- Back-up Redundancy Supported to Provide Reliable Connection Service
- Secured Tunnels for Communication between Controller and Managed AP to Prevent Leaking of Configurations
- Enterprise-class Access Point Functionalities with Comprehensive Configuration Interfaces



ZyWALL USG 1000

Unified Security Gateway

- All-new platform: "3rd" generation ZyWALL
- 22x faster than previous-generation ZyWALL firewalls
- New generation UTM solution
- Robust hybrid VPN (IPSec and SSL)
- Application Firewall
- Web security (Security Web access): ZyXEL safe browsing
- Non-stop Internet access with multiple WAN and 3G backups
- ICSA firewall, IPSec certification
- Best-of-breed security solution
- Comprehensive report system
- Free Anti-spam service
- ZyXEL Security Distribution Network (ZSDN)



XGS-4526 managed layer 3+ 10 Gigabit switch

- L3 Advanced Routing Protocols, OSPF, VRRP
- Multilayer-aware (L2/L3/L4) ACL for Security Protection and Traffic Optimization
- IGMPv3, DVMRP, MVR
- P Port Security and Enhanced 802.1x Port Authentication
- ZyXEL iStacking™ Technology
- VLAN Stacking (QinQ) for Network-based VPN
- 802.1x Authentication Clustering Network Management
- SNMP & RMON Support
- IEEE 802.1p 8 Hardware Priority Queue
- WFQ, WRR and SPQ Queuing Algorithms
- Backup Power System Support



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, WLAN, and IP telephony. Digital Home solutions include network connectivity devices and multimedia solutions.

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