



## Success Story

### Manufacturing Facility in Czech Republic Powers up Security Cameras with ZyXEL PoE Solution

**“The safety system needs to meet the highest standards, which is why we use top-notch cameras requiring a high input from a PoE. The backbone network based on ZyXEL technology not only satisfies these conditions, but also brings a superior permeability for transfer of high-definition picture data.”**

**René Boch**  
IT Coordinator  
Grupo Antolin - Turnov

#### Overview

**Customer Name**  
Grupo Antolin - Bohemia

**Customer Industry**  
Automotive accessories

- Challenges**
- Create network infrastructure to support camera system
  - Supply power to cameras
  - Meet network permeability needs of Gb/s
  - Solution must be stable and reliable

- Solution**
- 48-port Gigabit L2+ Switch
  - 20-port Gigabit Fiber L2 Switch

- Benefits**
- PoE solution meets the power needs of the cameras
  - Redundant design for uninterrupted service
  - Easily handles transmission of large volume of HD pictures and video from security cameras
  - Excellent price to performance ratio
  - Comprehensive after-sale service and support

#### Background

Based in Spain, Grupo Antolin is one of the leading producers of automotive interior components in the world. Their production sites are located in 25 countries around the globe, including the Czech Republic. To expand the production area at the Dolní Chrástava site, Grupo Antolin Bohemia required a new network infrastructure to operate its central protection panel (CPP) and an advanced camera system. ZyXEL network equipment fulfilled the basic requirement for a high-input of Power over Ethernet (PoE) for the IP cameras.





## Challenges

This project coincided with the expansion of the Grupo Antolin Bohemia's production site in Dolní Chrástava, and included the installation of a comprehensive camera system and development of supporting infrastructure to operate a central protection panel. Specific requirements mainly centered on the type of power supply needed for the security cameras used in the cable network. The cameras would be supplied by a PoE network. The motor-driven and heated IP cameras used in the project have a much higher power demand compared to ordinary network equipment typically powered using PoE.

## Solutions and Benefits

The new ZyXEL backbone network was deployed in the Grupo Antolin Bohemia production site by CENTR PCO, Ltd., which specializes in the installation and operation of security equipment. The key component of the security camera infrastructure is the ZyXEL GS3700 48-port Gigabit L2+ Switch, which was equipped with an additional power supply in order to achieve the input power needed to supply the system's IP cameras. This advanced switch provides an input power of 1,000 watts to supply the PoE network, which is sufficient to run the installed cameras.

In addition, the managed switches feature a redundant design that allows them to be replaced without any interruption. Similarly, redundant cooling modules with ventilators may be replaced during operation. The use of the GS3700-48HP switch with an additional power supply for PoE in Grupo Antolin Bohemia is the first installation of its kind in the Czech Republic. These power input requirements are relatively uncommon for connected PoE equipment, but such a project can be carried out using a suitable switch and the right accessories.

To operate the backbone network, an XGS3600 Series 20-port switch was deployed, which includes four 10Gb ports for the optical cable connections.

The company received several proposals for developing the new backbone system. ZyXEL, however, was the only vendor that could provide network equipment capable of delivering an infrastructure solution that met the company's network permeability requirement of 10 Gb/s, rather than the typical 1 Gb/s. By offering this ten-fold improvement in transmission capacity, the new backbone network will be much better prepared to handle high-volume data transfers generated by the security cameras' high-definition video feeds.

The all-new backbone network for the Grupo Antolin Bohemia production site is now fully operational and ready to transfer large volumes of data from the security cameras. In addition, the system is highly flexible and may be used for other purposes in the future.

Grupo Antolin Bohemia considered several proposals to develop the network infrastructure for their safety camera system. ZyXEL network equipment was the only option that allowed a complete backbone network to be developed within budget while offering 10Gb/s permeability, providing high-volume data transfer capabilities that enable security cameras to capture and transmit high-definition picture.

The GS3700 switch was equipped with an additional power source enabling the overall network input on the level of 1,000 watts to meet the power supply requirement of dozens of servo-driven and heated IP cameras.

Moreover, ZyXEL's lifetime warranty for used switches — including next-day replacement for faulty equipment — provides Grupo Antolin Bohemia with a hassle-free solution for operating its security system.

## Products Used



### GS3700-48HP 48-port Gigabit L2+ Switch

- Full Layer 2 feature set with Layer 3 features including static routing policy-based routing, VRRP and ECMP support
- Four (4) Gigabit SFP uplink flexibility
- 48 ports of Gigabit Ethernet desktop connectivity
- Hot-swappable power supply and fan modules
- Internal redundant power supply design
- High PoE power budget up to 1000 W



## XGS3600-26F 20-port Gigabit Fiber L2 Switch

- 32K MAC addresses table; 4MB Packet Buffer Size
- ITU-T G.8031 Ethernet Linear Protection and ITU-T G.8032 Ethernet Ring Protection Switching
- ITU-T Y.1731 / IEEE 802.3ah MAC Layer OAM and IEEE802.1ag Ethernet CFM
- "Front Access" design; Temperature harden; AC/DC dual power input
- Intelligent fan control for power saving; Fan Tray version available
- IPv6 management and s-Flow 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 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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