

## Success Story

### Knight Security Provides Comprehensive Network-based Video Surveillance System for the State of Texas, USA

**“ZyXEL provided the comprehensive, scalable network infrastructure required for this project and they backed it with outstanding support and training to insure that we had a successful deployment. They’ve been a great partner.”**

#### **Chris Hugman**

VP and Executive Project Manager  
Knight Security, USA

## Overview

#### **Customer Name**

The State of Texas Department of Aging and Disability Services (DADS), USA

#### **Customer Industry**

Government

#### **Challenges**

- Provide a turnkey video and surveillance and monitoring solution for 12 state-supported living centers spread across the State of Texas
- The environment of each living center campus was different
- An easy and centralized network monitoring and management

#### **Solutions**

• ES-2108PWR, ES-2024PWR, XGS-4528F, GS4012F, GS2200-24, USG100, ProEMS

#### **Benefits**

ZyXEL solution delivers reliable video surveillance at all locations, saving time & money. ZyXEL’s superior product and warranty service supports scalability as system needs grow. Safety & security are optimized via central monitoring and control.

## Challenges

The system requirements included a turnkey video and surveillance and monitoring solution for 12 state-supported living centers spread across the State of Texas. Each living center campus was different; some had only six buildings and some had 62 buildings, but all required video surveillance. Another consideration was network monitoring & management. With several thousand cameras in the field and multiple network switches providing backhaul, it was important that the entire network is easily monitored and managed from a central location.

## Background

The State of Texas Department of Aging and Disability Services (DADS) was created to administer long-term services and support for people who are aging and who have cognitive and physical disabilities. DADS also licenses and regulates providers of these services, and administers the State’s guardianship program. DADS needed a method to insure proper care and safety to its residents and clients, and determined that a video surveillance solution would be the answer.

## Solutions and Benefits

DADS selected Knight Security Systems because of their expertise in video surveillance and system design. The Knight Security solution provided a common platform across all systems while assuring seamless control by way of SNMP network monitoring and management. Knight Security chose ZyXEL because offered the proper mix of switches to meet all requirements of the DADS contract. The need for a small PoE switch with fibre backhaul to a high capacity core switch was of extreme importance. ZyXEL provided a comprehensive networking solution that precluded the need to bring in networking products from other vendors. ZyXEL's USG series of UTM security appliances was chosen to act as the gateway to the IP backbone and provide a secure IPSec VPN tunnel from each campus back to Knight Security's Customer Support Center.

ZyXEL's XGS series of switches was used to aggregate fibre links between the buildings and provide routing functionality. The high capacity switches met the demands of always-on streaming video.

ZyXEL's GS2200 series of switches provided Ethernet connectivity from the XGS switch to video (and other) servers located on each campus.

ZyXEL's ES series of PoE products was used to provide PoE power to the cameras. The cameras required only three watts of power from each port.

ZyXEL's "consumption mode" allowed Knight Security to use affordable "half power" switches and still provide sufficient power at each port to power all cameras. The ability to prioritize ports also ensured that, should a high-consumption device be connected, critical devices would still operate without interruption.

ZyXEL's ProEMS network monitoring & management solution was also used to provide network monitoring for all network devices at each campus. ProEMS provides an easy to use interface for monitoring and managing all switches, UPS systems, servers and cameras deployed in the field.

ZyXEL's wide range of products allowed Knight Security to source all the switches needed for the deployment from one vendor. All equipment, from small PoE switches to layer 3+ switches with 10G backhaul were all offered by ZyXEL. The total cost of the ZyXEL-based solution is significantly lower than competitors' solutions.

ZyXEL's limited lifetime switch warranty and 5-year firewall warranty are also two important factors for Knight Security to choose ZyXEL products. The unique feature set of the ES-2108PWR (8 port full power PoE switch w/ Gb fiber backhaul) further convinced Knight Security of the end-to-end solution from ZyXEL.

## Products Used



### ES-2108PWR 8-Port FE L2 Switch

- 1.6/3.6 Gbps non-blocking switch fabric
- 802.1x for access authentication
- 4 IEEE 802.1p hardware priority queues
- SPQ and WRR queuing algorithms
- Intrusion lock, MAC freeze, MAC filtering & static MAC forwarding
- IGMP Snooping v1, v2, v3
- ZyXEL iStacking™ technology, one IP management for 24 devices



### ES-2024PWR 24-port FE L2 PoE Switch

- 8.8 Gbps non-blocking switch fabric
- 802.1x for access authentication
- 4 IEEE 802.1p hardware priority queues
- SPQ and WRR queuing algorithms
- Intrusion lock, MAC freeze, MAC filtering and static MAC forwarding
- IGMP Snooping v1, v2, v3
- ZyXEL iStacking™ technology, one IP management for 24 devices
- IEEE 802.3af Power over Ethernet
- Easy web GUI for intelligent PoE power management



## **XGS-4528F** **24-port GbE L3 Switch with 10GbE Uplink**

- 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, MVR
- sFlow, CPU protection
- RSTP, MSTP, MRSTP and VRRP



## **GS-4012F** **12-port GbE L3 Switch**

- L3 advanced routing protocols, OSPF and RIP
- Policy-based QoS optimizes multi-service quality
- Multicast DVMRP & IGMP support
- Multilayer-aware (L2/L3/L4) ACL for security protection and traffic optimization
- Port security and enhanced 802.1x port authentication
- High redundancy and resilience architecture with RSTP, VRRP and Port trunking
- ZyXEL iStacking™ Technology (up to 24 switches)
- SNMP and RMON support
- Optional backup power support



## **GS2200-24** **24-port GbE L2 Switch**

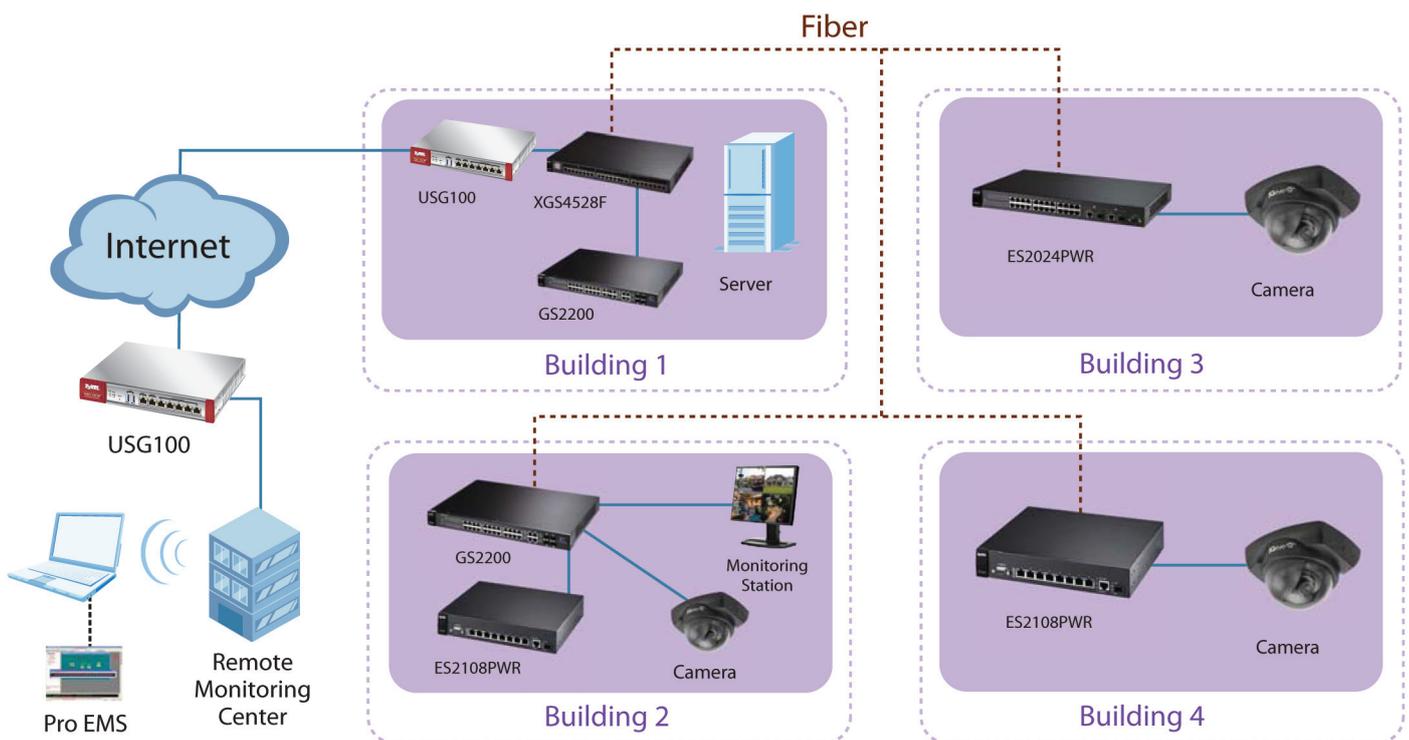
- Comprehensive L2 switching features
- 56 Gbps non-blocking switch fabric
- 2 dual-personality (RJ-45/SFP) GbE interfaces
- Port security and enhanced 802.1X port authentication
- MAC freeze and intrusion lock
- 8 IEEE 802.1p hardware priority queues
- WFQ, WRR and SPQ queuing algorithms
- IPv6 Ready Logo approved



## USG100 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

## 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>.

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