ZyXEL

Overview

Customer Name
- Hospedia Ltd

Customer Industry
- Healthcare

Challenge
- Install new hospital bedside entertainment solutions with minimal disruption to the running of the hospital
- Work with one vendor for all the networking requirements
- Quick deployment time
- Reliable solution

Solution
- ZyXEL XGS4528F L3 Managed 10G Stackable Switch
- ZyXEL ES3148 48 port 10/100 L2 Managed Switch
- ZyXEL ES2024A 24 port 10/100 L2 Managed Switch.
- ZyXEL IES-5000M 6.5U 10 slot MSAN Chassis
- ZyXEL IES-6000M 12.5U 17 slot MSAN Chassis
- ZyXEL P660R ADSL2+ Router

Benefit
- Interoperability with legacy infrastructure
- Cost and time saving
- Reliable solution with minimal testing required
- Modern bedside entertainment solution deployed in many hospitals in the UK
- Easy to install and manage
- Entire networking solution from one vendor

Success Story

Connected Health Entertainment Solution Underpinned by ZyXEL

"ZyXEL is considered a true partner"
Stephen Clay, CTO Hospedia Ltd

Summary

As Hospedia rolled out service and hardware upgrades to its existing and new bedside communication and entertainment systems, it needed to team with a networking vendor who could provide a complete and service-focused solution. ZyXEL's range of IP DLSAM, Ethernet switches, Gigabit switches and ADSL routers combined with its personal customer service has delivered exactly what was required.

Challenge

Retro fitting in hospitals, by its very nature, presents many challenges. Minimal disruption to the smooth running of the hospital is paramount. Hospedia provides innovative bedside entertainment solutions to some 10 million patients a year and is constantly looking to improve and add value to the services it offers. As part of a nationwide upgrade and new field installation programme, Hospedia needed to partner with a networking vendor who could provide for all of their networking requirements ensuring consistency, interoperability, familiarity and crucially speed of deployment.

Solution

Hospedia turned to ZyXEL UK as its preferred supplier of networking and DSLAM products due to the end-to-end scale of equipment that can be supplied by one-single vendor. Depending on the existing hospital infrastructure there were two solutions that Hospedia could choose to deploy:

ZyXEL Switches Across Cat 5e Ethernet Cabling

This solution is based on hospitals that have Cat 5e Ethernet cabling and consists of ZyXEL switches at the core and access levels of the network. At the core of the network, the ZyXEL XGS-4528F L3 Managed 10G Stackable Switch is used, allowing either copper or fibre gigabit links to be used. The port requirements in the wards determines whether the access layer switch needs to be the ZyXEL ES-3148 48 port 10/100 L2 Managed Switch or ES-2024A 24 port 10/100 L2 Managed Switch. Both these switches have dual-personality allowing for copper or fibre uplinks to be used for connection back to the core switch. This gives greater installation flexibility allowing for a choice in the best method of connectivity.

Twisted Pairs with ZyXEL DSL Technology

The twisted pair deployment uses ZyXEL IP DSLAM and DSL products. Depending on the number of bedside units to connect, either the ZyXEL IES-5000M 6.5U 10 slot MSAN Chassis or the ZyXEL IES-6000M 12.5U 17 slot MSAN Chassis is used. The bedside units are then connected via a ZyXEL P660R ADSL2+ Router. The ZyXEL XGS-4528F L3 Managed 10G Stackable Switch is then used in the core of the network to supply the security and routing functions that are required by the network.

Business Benefits

Because the ZyXEL networking solutions are interoperable with the legacy infrastructure installed within the hospitals, the speed with which Hospedia can deploy is greatly increased saving both time and money. Contributing to this is the ability for Hospedia to pre-configure ZyXEL's solutions 'off-site'

enabling the actual installation to become virtually 'plug and play'.
For the hospitals, a modernisation programme that can deliver 15" touch screen to the bedside entertainment, with applications including telephony, digital TV and Internet access with the minimum of disruption is critical. In addition, over the longer term the reliability of ZyXEL equipment means that hospitals are able to reduce their ongoing maintenance costs.

Result

Hospedia now has a networking solution set which can be pre-configured prior to installation. Once on site the ZyXEL infrastructure can be installed in a matter of hours with the minimum of downtime or inconvenience to the patients with the added benefit of ZyXEL's customer service providing support to Hospedia as and when required. Due to ZyXEL's complete range of networking hardware which can easily scale Hospedia is able to fulfil their entire requirements from one vendor, minimising cross vendor incompatibilities.

The Future

Hospedia continues to roll out its extensive upgrade and installation programme across its customer base with some 5000 bedside units already upgraded. Looking forward, Hospedia may look to introduce ZyXEL's wireless technology to support deployments where this connectivity is better suited to the site environment.

What the client says:

"ZyXEL is in a unique position to provide fully integrated end-to-end networking infrastructure combined with high levels of good quality customer service. Put simply ZyXEL is considered a true partner to Hospedia."
Stephen Clay, CTO, Hospedia Ltd

About Hospedia

Hospedia provide bedside entertainment services for up to 10 million patients every year in over 150 hospitals across the UK. The company has invested over £160m into providing the service at no cost to the NHS. Hospedia acquired Patientline in July 2008. The new management team have restructured the business and secured significant new investment funds, which led to the launch of free calls packages for patients and new services for both hospitals and patients.

Products Used

ZyXEL ES3148
48 port 10/100 L2 Managed Switch

- 17Gbps switching fabric
- Switching Forwarding Rate 13.1Mpps (1488000pps/1000Base-
  T/1000Base-X, 148800pps/100Base-TX)
- Wire-speed performance

ZyXEL XGS-4528F Layer 3+
10/100/1000/10G Managed Switch

- L3 Advanced Routing Protocols, OSPF, VRRP
- Multilayer-aware (L2/L3/L4) ACL for Security Protection and
  Traffic Optimisation
- IGMPv3, DVMRP, MVR
- Port Security and Enhanced 802.1x Port Authentication

ZyXEL IES-5000M 6.5U 10 slot MSAN
Chassis/IES-6000M 12.5U 17 slot MSAN
Chassis

- Future Proof Architecture
- Easy & Reused Logistics
- Advanced Triple Play and Mass Deployment Functionality
- Robust Physical Safety Design
- Sophisticated OAM&P Features

ZyXEL ES-2024A Managed Layer 2
Fast Ethernet Switch

- Port-based and IEEE802.1Q Tagged VLAN (4K PVID)
- Intrusion lock, MAC Freeze, MAC filtering & Static MAC Forwarding
  for L1/L2 Security Protection
- 802.1x for Access Authentication and Management over VLAN and
  Bandwidth per Valid User's Attribute

ZyXEL P660R ADSL2+ Router

- ADSL2+ Internet Access
- SOHO Firewall Security with DoS Prevention
- Web Based User Interface
- Powerful Remote Management TR-069 Support

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.
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.