ZyXEL

Success Story

ZyXEL Provides Reliable and High-Quality Network for Hungarian Olympic Centre in Szeged

Overview

Customer Name
Olympic Centre of Szeged

Customer Industry
Sports Institute

Challenges
Provide high-performance Wi-Fi across venue buildings and open air facilities as well as an IPTV network suitable for deploying several TV sets.

Solution
• 24-port GbE Smart Managed Switch
• 20-port GbE Fiber L2 Switch with Four GbE Combo Ports
• HD IP Set-Top Box

Benefits
• Extremely stable and reliable switches meeting video streaming standards
• High performance even under heavy load (up to 1500 connections)
• Easy network management from a central location

Challenges

The system requirements included a turnkey internet access and Wi-Fi access solution across the venue buildings and open air facilities, as well as an IPTV network suitable for deploying several tens of TV sets and Set-Top-Boxes. The internet access included a licensed Alcoma wireless link from the company's premises to the regatta course of 900Mbps. With several cameras in the field and multiple access points and network switches providing backhaul, it was important that the entire network is easily monitored and managed from a central location.

Background

SzemerNet Kft., One of the biggest providers in the southern part of Hungary was awarded to redesign and deploy the network infrastructure at the Maty stream regatta course, required to securely host such events and provide state-of-the art access for both the organizers, publicists, TV commentators and visitors. The competition course of the Maty stream, officially called the Olympic Centre of Szeged, is one of the best kayak-canoe and rowing sports institution in the world in regards of its natural attributes. The almost 2.5 kilometres long and 130 metres wide course is suitable to host even the highest level international competitions. In addition to kayak-canoe and rowing the institution is an excellent location for the training camps of other branches of sport, and it is even available to leisure time sportspeople.

Solutions and Benefits

The Hungarian Canoe Federation selected SzemerNet Kft. Because of their expertise in system design and networking. SzemerNet provided a common platform across the regatta course while assuring scalability and seamless control by way of SNMP network monitoring and management. SzemerNet chose ZyXEL because ZyXEL offered a proper mix of switches to meet all requirements of the HCF contract. The need for an extremely stable and reliable switch backhaul was of high importance.

ZyXEL's GS1910 series of switches was used to aggregate fibre links between the buildings and to provide access to different services by using 7 VLANs configured to separate traffic types. The high capacity switches met the demands of streaming video. ZyXEL GS1910-24 switches provided fiber connectivity from the XGS3600 Series core switch. Additionally 50 pcs of STB2101HD Set-Top Boxes were used in the Hotel and selected areas of the course where TV reception was required, transforming the old analog TV system into a future proof and high quality Ekioh-based IPTV network.

The system worked perfectly during the competition and will be further used in the next months when similar events will be hosted. Monitoring of the system proved that before the finals an average of 900 people were using the Wi-Fi and on Sunday this jumped to 1500 connections.

The management of the organizing committee was pleased by the capacity and possibilities brought by the new infrastructure and expressed their satisfaction for both the deployment and equipment quality.

With ZyXEL switching solutions, the Maty stream regatta course is no longer restricted to a low cost and unstable network. They can now fully utilize all the endpoints at any location on the course premises, including offices, hotel and public areas. Meanwhile, visitors and athletes are able to access public wireless without any restriction. The Wi-Fi network provides both registered users a high bandwidth access and a lower but still reliable bandwidth for anonymous users.

ZyXEL was offered to place their banner on the sidewalls of the race track and this was visible during the TV broadcasting sessions. The continuous work we foresee together with SzemerNet seems to provide a stable place for this banner in a central place for another 3 years.
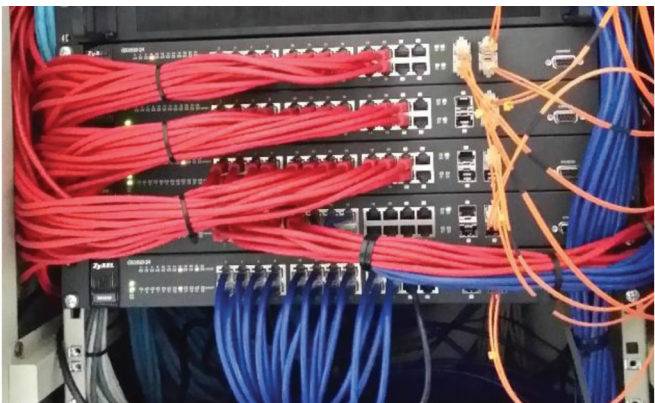
Products Used

GS1910 Series
24-port GbE Smart Managed Switch

• Advanced Smart GbE L2 ACL switching features
• 48 Gbps non-blocking switch fabric
• Supports IPv6
• Fanless design

STB2101HD
HD IP Set-Top Box

• Designed for HD IPTV and video-on-demand services
• PVR/Time shifting support
• Integrate CA/DRM support for media content protection
• Middleware solutions provide the flexibility in customizing applications
• Automatic firmware upgrade mechanism

XGS3600 Series
20-port GbE Fiber L2 Switch
with Four GbE Combo Ports

- 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.