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Success Story

Zyxel GPON Solution Gives Thai Boutique Resort Cutting-Edge Triple-Play Service

INDUSTRY — Hospitality

CUSTOMER — Isaan-Isan Boutique Resort

COUNTRY — Thailand

SOLUTION — Zyxel GPON Solution

Overview

Challenges

• Deliver triple-play service to all guest rooms
• Fully cover broad property with multiple residential structures
• Ensure security cameras have power in areas lacking outlets

Solution

• Zyxel GPON Solution

Results

• Guests can enjoy all their favorite shows in pristine HD
• Lower energy usage and maintenance compared to alternative solutions
• Power-over-Ethernet technology makes CCTV deployment possible

"We surveyed several solutions for our resort. Zyxel stands out as a vendor who can offer cost-effective solutions that can fulfill our requirements in terms of investment and performance."

Puntuch Topothai
Managing Director, Isaan-Isan Boutique Resort

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Background

Isaan-Isan Boutique Resort is a brand-new hotel property in Khao Yai, Thailand that draws upon the charm and style of its locale for inspiration. Run by the hospitality developer Andacura, Isaan-Isan has over seventy uniquely designed rooms and an array of amenities to ensure one's stay is the epitome of relaxation. The spa center can do more than deliver the perfect massage; it also provides guests with rejuvenating herbal and beauty treatments. Another favorite is the outdoor pool and garden area, where couples and families can relax and unwind. Since the hotel is situated near several other tourist attractions, including a national park, those desiring sightseeing will not be without options. Andacura is guided by the belief that a good boutique hotel must have "heart and soul," conceive of a "unique concept and philosophy," and "promote local culture and traditions." With quaint and cozy Isaan-Isan, they have surely succeeded.

Challenges

Wanting to make a stellar first impression with guests, Andacura's management team knew that it would be important to invest in a superior wired and wireless network. In particular, they hoped to implement a comprehensive triple-play service that would deliver IPTV, VoIP, and high-speed internet to every guest room. Because the 300-square-meter resort comprises numerous villas, Isaan-Isan needed a solution that was both versatile and durable. Power-over-Ethernet capability would also be useful, as the resort planned to deploy IP security cameras in areas lacking electrical outlets. They asked local system integrators to develop proposals based upon several other requirements: reasonable price point, local presence, scalability, solid product specifications and features, and vendor reliability.

Solutions and Benefits

In order to deliver top-notch entertainment to guests, Isaan-Isan went with a Zyxel GPON Solution proposed by HSTN, an experienced local integrator. There are many benefits to deploying a GPON network: powerful fiber connectivity, cost-effective devices, and data security, for example. Typically, all of these features support the primary goal of delivering cutting-edge, reliable triple-play services for enterprises and service providers.

The backbone of Isaan-Isan's GPON network is the **Zyxel 1U Pizza Box 4-port GPON OLT (OLT1404A)**, which has refined QoS features to ensure guests are getting optimal speed and reliability. The potent fiber line branches out to **Zyxel Wireless N GPON ONT IAD with 4-port GbE Switch (PMG5318-B20C)** units in every guest room. These devices serve as gateways to IPTV, VoIP, and internet access, making it easy for guests to enjoy high-definition shows, make crystal-clear voice calls, or quickly browse the web.

To provide connectivity to the reception area and security office, Isaan-Isan deployed several Zyxel switches: the **XGS2210-28 24-port Gigabit L2 Switch with 10GbE Uplink** for core switching and **GS1900 Series Gigabit Smart Managed PoE Switch** units at the network edge. Because the switches have PoE functionality, they can power CCTV cameras and IP phones without dedicated electrical wiring, one of the resort's key needs.

Successful hotels and resorts go the extra mile to ensure a guest's first impression is positive and lasting. In the fast-moving digital era, this means being able to deliver—at a minimum—the level of network service that the average guest has at home. With a Zyxel GPON Solution, Isaan-Isan can move forward with confidence knowing that its patrons will be getting a truly state-of-the-art entertainment experience.

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Products Used

OLT1404A • 1U Pizza Box 4-port GPON OLT

- Cost-effective solution with compact design
- Temperature-hardened for durability
- Comprehensive QoS to enhance users' triple-play experience
- Field-proven IGMP snooping and proxy for IPTV deployments
- Full management capabilities via Zyxel EMS NetAtlas

PMG5318-B20C • Wireless N GPON ONT IAD with 4-port GbE Switch

- Integrating various services through fiber optics
- 2.4 GHz 11n (2x2) for superior performance and coverage
- Advanced QoS ensures quality of triple-play services
- Provisioning and management through TR-069 and OMCI

XGS2210-28 • 24-port Gigabit L2 Switch with 10GbE Uplink

- Gigabit connectivity plus four SFP+ ports for handling high-bandwidth networks with ease
- Physical stacking of up to two units through two standard 10G SFP+ ports
- VLAN static routing for agile, reliable network operations
- Supports sFlow, which analyzes client behavior to discover sources of bandwidth abuse
- Enhanced network protection with IP source guard, DHCP snooping, ARP inspection, and CPU protection

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GS1900-8HP • 8-port Gigabit Smart Managed PoE Switch

- Gigabit connectivity
- High-power PoE support IEEE 802.3at
- Easy browser-based switch management
- Quick and easy setup wizard
- Advanced network error prevention features (loop protection, dual images, storm control, and DoS, SSL)
- Fanless design

GS1900-10HP • 10-port Gigabit Smart Managed Switch

- Intuitive, browser-based switch management with quick and easy setup wizard
- Advanced network error prevention features (loop protection, dual images, storm control, DoS, and SSL)
- Fanless design
- Green Ethernet IEEE 802.3az support and intelligent Zyxel green features
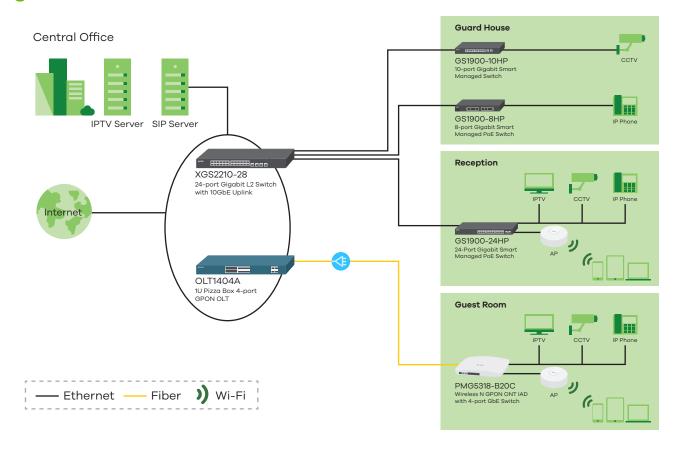- IEEE 802.3at PoE plus support with a max of 30W per port (77W total budget)

GS1900-24HP • 24-Port Gigabit Smart Managed PoE Switch

- 10/100/1000 Mbps GbE ports
- PoE power budget of 170 W
- Quick and easy setup wizard
- Advanced network error prevention features (loop protection, dual images, storm control, DoS, and SSL)
- High-power PoE support IEEE 802.3a

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Diagram

Central Office

IPTV Server SIP Server

Internet

XGS2210-28
24-port Gigabit L2 Switch
with 10GbE Uplink

OLT1404A
1U Pizza Box 4-port
GPON OLT

Guard House

GS1900-10HP
10-port Gigabit Smart
Managed Switch

CCTV

GS1900-8HP
8-port Gigabit Smart
Managed PoE Switch

IP Phone

Reception

IPTV CCTV IP Phone

GS1900-24HP
24-Port Gigabit Smart
Managed PoE Switch

AP

Guest Room

IPTV CCTV IP Phone

PMG5318-B20C
Wireless N GPON ONT IAD
with 4-port GbE Switch

AP

—— Ethernet —— Fiber))) Wi-Fi

About Zyxel

Focused on innovation and customer-centricity, Zyxel has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users.
Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play.
Zyxel, Your Networking Ally.