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Success Story

India Luxury Apartments Strike Network Gold with Zyxel GPON Solution

INDUSTRY	Housing	**CUSTOMER** Golden Homes	**COUNTRY** India	**SOLUTIONS** Zyxel GPON Solution

Overview

Challenges

• Unifying data, voice, and intercom service
• Being able to support IoT door sensors and fingerprint scanners
• Preventing hardware crowding in the server room

Solutions

• Zyxel GPON Solution

Results

• Data, voice, and intercom service placed within a single network
• Customized firmware enabled deployment of IoT devices
• Streamlined infrastructure saves space and reduces costs

"The new network allows residents to fully engage with our technology in such an easy way. All the credit goes to Zyxel and its partner. If we ever need to upgrade our network in the future, we won't hesitate to work with Zyxel again."

Mr. Udaykumar Balakrishnan
Technical Solution Manager, Z-Oli Networks

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Background

Established in 1986, Golden Homes has over three decades of experience; it's a reason why the company's one of the most trusted in the regional housing industry. Golden Opulence, one of the company's upscale apartment projects in Chennai, is conveniently located near schools, hospitals, shopping centers, and two airports. It also boasts an array of amenities: a banquet hall, 36-meter pool, state-of-the-art fitness center, spa, sports areas, and a sumptuous club house in Victorian-era style. This passion for providing luxury—that also happens to be affordable—is why more than 2,000 families have indulged in a home from Golden Homes.

Challenges

To provide the Golden Opulence project with modern smart-home technology, Golden Homes was hoping for a network that could unite its data, voice, and intercom services. It also wanted its core hardware to have enough ports to connect to its servers and support IoT technologies, such as door sensors and finger scan devices. This would save space in the server room, as the residence wouldn't need to invest in extra switch hardware. Finally, the IT team needed to have the ability to alternate between ISPs if it was deemed necessary. Golden Homes called upon Z-Oli Networks, its infrastructure and solution partner, to handle the challenging network overhaul.

Solutions and Benefits

To meet the specific needs of the Golden Opulence project, Z-Oli Networks decided that a potent, efficient, and cost-effective GPON solution made the most sense. The tech company asked Zyxel's R&D team to customize the firmware of the **PMG5317-T20A Wireless N GPON HGU with 4-port GbE Switch** to support different SIP servers on two FXS ports: one for a PSTN phone line, the other for intercom.

The customization also allowed the residence to deploy its IoT devices over the same network without disclosing MAC address details. At the center of the solution was the temperature-hardened **OLT1408A 1U Pizza Box GPON OLT** and its eight gigabit Ethernet, SFP ports, and four 10G interfaces. It provides up to 1K FTTH to users via 8 ITU-T G.984 GPON fiber links. By connecting existing servers directly into the OLT hardware, the residence didn't need to deploy another switch to segregate services via VLAN.

Zyxel also provided training for Z-Oli Networks' IT engineers, ensuring that they were able to configure the GPON network with confidence. Ultimately, the development got everything it had desired—uninterrupted network service; data, intercom, and landline over the same equipment; and the option of switching service providers with a simple telephone call to its Zyxel partner.

The IT specialists at Golden Homes and Z-Oli Networks can rest easily with the knowledge that the new GPON network is fast, reliable, and sure to give residents a wireless experience that will make their golden homes shine.

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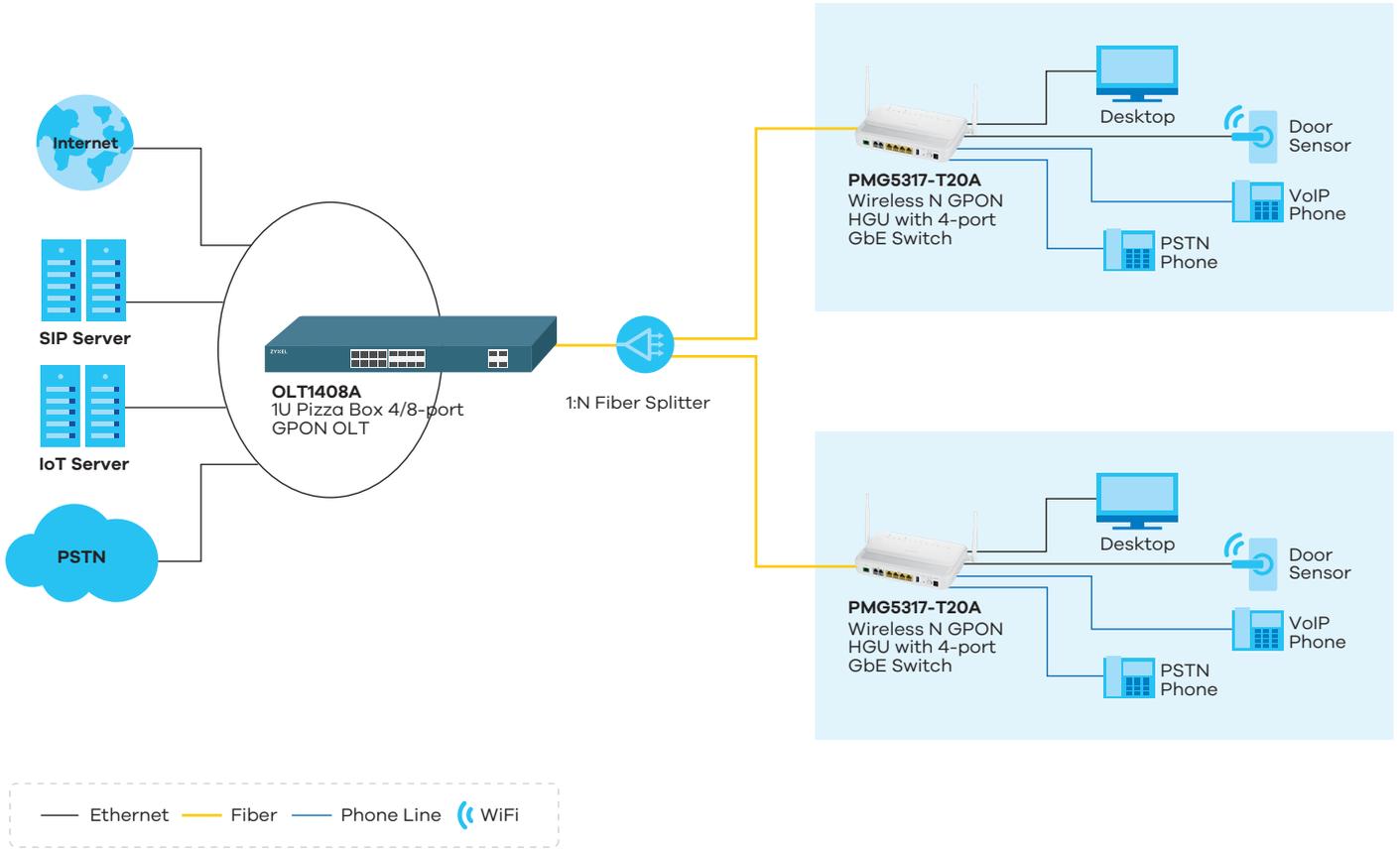## Products Used

OLT1408A • 1U Pizza Box 8-port GPON OLT

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

PMG5317-T20A • Wireless N GPON HGU with 4-port GbE Switch

- Integrated Internet services through fiber optics
- 2.4 GHz 11 b/g/n (2x2) for superior performance and coverage
- Advanced QoS ensures quality of triple-play services
- Provisioning and Management

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Diagram

Internet

SIP Server

IoT Server

PSTN

OLT1408A
1U Pizza Box 4/8-port
GPON OLT

1:N Fiber Splitter

PMG5317-T20A
Wireless N GPON
HGU with 4-port
GbE Switch

Desktop

Door
Sensor

VoIP
Phone

PSTN
Phone

PMG5317-T20A
Wireless N GPON
HGU with 4-port
GbE Switch

Desktop

Door
Sensor

VoIP
Phone

PSTN
Phone

—— Ethernet —— Fiber —— Phone Line WiFi

About Zyxel Communications

Focused on innovation and customer-centricity, Zyxel Communications 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.